

FISHERPLACE GILL HYDRO SCHEME

Hands off Flows Analysis

Version A

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June 2023

1. INTRODUCTION

This document seeks to establish what is appropriate as a hands of flow for Fisherplace Hydro after six years of operations and the associated data that is now available.

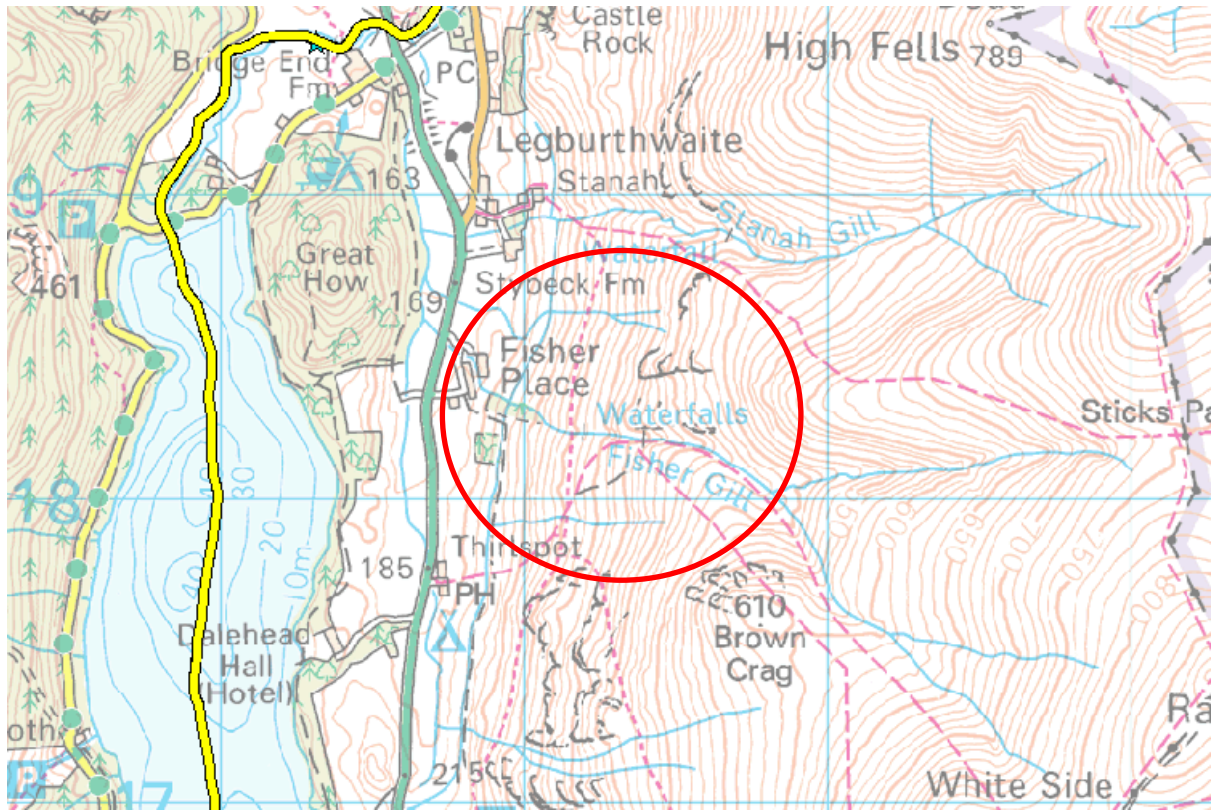


Figure 1: Waterbody Location

2. CURRENT STATUS and HISTORY

Currently the station operates with a hands off low of 34lps as per the abstraction licence put into place in 2016 ahead of the projects construction. Licence number is NW/075/0007/003.

The consenting flow regime of the time was to have a hands off flow of Q80.

During the determination of the abstraction licence, in river gauging took place which was interpreted as indicating a different flow regime than the Wallingford Low Flows figures. The low flows at the time gave a Q80 figure of 21lps.

But the in river spot gaugings showed potential for the flow to be higher and thus the precautionary approach was taken and the EA hydrology or permitting officer at the time decided to offer the licence with 34lps as the Q80 figure. The project back then had been greatly delayed by the consenting timeline being long so this was rapidly accepted despite misgivings at the time (the need to start construction and achieve FIT subsidy deadlines etc was significant).

| | Low Flows 2010 | Low Flows 2014 | EA 2016 (During licencing decision) |
|----------------|----------------|----------------|-------------------------------------|
| Q80 Flow (lps) | 24 | 21 | 34 |
| Q95 Flow (lps) | 12 | 11 | 22 |

2. FLOW SENSITIVITY

Fisherplace Gill is quite unique in that it wholly feeds the UU leat to Thirlmere just below the hydro scheme outfall structure.



The downstream watercourse is a dry riverbed in all flows except rare spate flows where the leat overflows to the gill which flows down to Thirlmere Reservoir.



The derogated reach itself is made up of chutes and waterfalls with a fall of over 220m along a length of just 600m. (One of the steepest watercourses in Cumbria and England’s steepest hydro project).

3. HOF IMPACT ON HYDRO SCHEME GENERATION

Hands off flows impact the generation of the zero carbon electricity any increase, means that the same amount less of fossil fuel derived power is produced (the grid network is constantly balanced). The project currently has a carbon savings of 0.212kg CO₂e per kWh.

| Activity | Country | Unit | Year | kg CO ₂ e | kg CO ₂ | kg CH ₄ | kg N ₂ O |
|-----------------------|-----------------|------|------|----------------------|--------------------|--------------------|---------------------|
| Electricity generated | Electricity: UK | kWh | 2021 | 0.21233 | 0.21016 | 0.0008 | 0.00137 |

Our energy capture analysis which is verified as having good accuracy based on our performance tracker etc. Has been used to calculate the impact of HoF of generation. The summary pages of these calculations as in the appendix.

HOF 34lps – 1197 MWh

HOF 21lps (Low Flows 2014 Q80) – 1303 MWh (saving of 22,507 kg CO₂e)

HOF 11lps (Low Flows 2014 Q95) – 1396 MWh (saving of 42,254 kg CO₂e)

So the 11lps HOF gives a 17% increase in generation over the 34lps HOF. The 21lps has a 9% increase in generation.

4. HYDRO MONITORING DATA ANALYSIS

Fisherplace Hydro station has monitoring in place which logs data from the control panel. This data is saved and accessible through the monitoring online portal. The data is held within a Sim card in the panel. The system retains 6 months of data. No downloading regime has been kept in place and thus not all the data from the commissioning date has been retained. Lastly the logs come in many forms and the useful log for analysing river flows is the log that contains both the river level (level sensor in weir pool immediately upstream of intake) and the power output.

The retained data is between the following dates and this is the data period that have been used for the analysis.

17th Dec 2016 – 15th Jan 2017

15th June 2017 – 13th Aug 2017

1st March 2020 – 29th May 2020

These dates add up to 180 days of data so approximately 6 months.

Method

The data analysis utilised two methods the first method is to use the hydro output data to create a stage discharge curve with the intake water level. This worked well for the mid range flows but the HOF flow analysis is all about flows between Q95 – Q80 flows for which the hydro has been off. The current hands-off flow of 34lps means that there is no hydro output data for flow down near this level (turbine shuts down at around 10% of full power as less than this and the generator is unable to remain synchronised to the grid network frequency (50hz)). Therefore the curve is very unreliable down at these lower flows where we have no data points.

Another method which has not got this limitation is the flow notch calculation method. Rather than using kwh output data the depth above the weir crest is used to derive flows from the water level. This is accurate for low flows.

The discharge equation is

$$Q = \frac{2}{3} C_d w \sqrt{2g} d^{3/2} \text{ where } C_d = 0.64$$

It should be noted that the weir crest is made up of two parts the 1m wide Coanda crest and the 250mm wide hands off flow notch.

5. RESULTS

| Q Percentile | Litre per second |
|---------------------|---|
| Q10 | 299 (Inaccurate as notch overtops before Q10) |
| Q50 | 70 |
| Q70 | 40 |
| Q80 | 31 |
| Q90 | 25 |
| Q95 | 21 |

These results above are from the notch calculation method and are accurate for low flows. They show the flows percentile derived from 6 months of data.

The table below compares these results with the low flows data.

| | Low Flows 2010 | Low Flows 2014 | EA 2016 (During licencing decision) | 6 Months Hydro data |
|----------------|---------------------------|---------------------------|--|--------------------------------|
| Q80 Flow (lps) | 24 | 21 | 34 | 31 |
| Q95 Flow (lps) | 12 | 11 | 22 | 21 |

5. SUMMARY

All in all, the flows are a little lower than what was used for the consenting flows, we would suggest that the likely Q80 flow is 31lps and 21lps for Q95 flow.

We feel that with the watercourse ending in a man made leat just below the outfall location combining with a watercourse of chutes and falls means that a Q95 HOF is without doubt fully justified and thus we have applied for 21lps Q95 HOF flow licence variation from the existing 34lps HOF flow.

SITRANS P, MPS series 7MF1570

Edition 05/2006

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VORSICHT

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1 Aufbau

Der Messumformer hat einen frontbündig eingebauten Piezowiderstands-Sensor mit Messemembrane aus Edelstahl.

Der Messumformer ist mit einer Elektronik ausgerüstet, die zusammen mit dem Sensor in ein Gehäuse aus Edelstahl eingebaut ist. Im Anschlusskabel befinden sich außerdem ein Trageseil und ein Entlüftungsrohr.

Die Messmembran wird durch eine Schutzkappe vor äußeren Einflüssen wirksam geschützt.

Der Sensor, die Elektronik und das Anschlusskabel sind in einem hermetisch gekapselten Gehäuse mit kleinen Abmessungen untergebracht.

Der Messumformer ist für einen weiten Temperaturbereich kompensiert.

2 Anwendungsbereich

Der Messumformer 7MF1570 wird für die hydrostatische Füllstandmessung eingesetzt, z. B. in der Wasserversorgung, bei Schiffsinstallationen, in der Öl- und Gasindustrie usw. Der Messumformer dient zur Messung des hydrostatischen Drucks ($p = \rho \cdot g \cdot h$, mit: ρ - Dichte der Flüssigkeit, g - Erdbeschleunigung, h - Höhe der Flüssigkeitssäule).

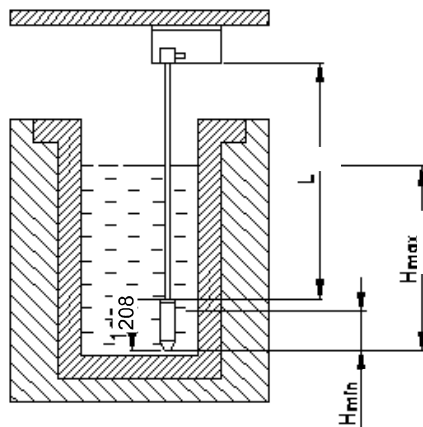


Bild 1 Messumformer 7MF1570, Füllstandmessung in offenen Behältern

Die chemische Beständigkeit von Sensor, Gehäuse, O-Ring und Anschlusskabel gegenüber dem Messstoff ist zu beachten.

3 Arbeitsweise

Der Druck des Mediums wirkt auf die Membrane aus nichtrostendem Stahl, welche ausgelenkt wird und so den Druck an die Piezo-Widerstandsbrücke in dem Messsensor überträgt. Jeder Sensor ist für Temperaturänderungen kompensiert und arbeitet in einem breiten Temperaturbereich.

Das Ausgangs-Spannungssignal des Sensors wird einer Elektronik zugeführt, die es in einen Ausgangsstrom im Bereich von 4 bis 20 mA umwandelt. Auf die Membrane des Sensors wirkt der hydrostatische Druck, welcher mit der Eintauchtiefe proportional ist. Dieser Druck wird mit dem Atmosphärendruck verglichen, welcher, mittels des Entlüftungsrohrs im Anschlusskabel, auf die andere Seite des Sensors wirkt. Der Kabelschirm ist an das Gehäuse angeschlossen.

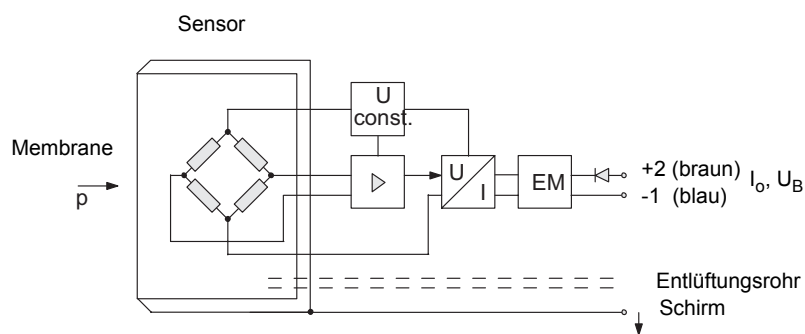


Bild 2 Messumformer 7MF1570, Blockschema

Der Messumformer wird aus einer Gleichstromquelle 10 bis 36 V DC gespeist. Schutzdioden am Eingang schützen gegen falsche Polarität oder zu hohe Spannung. Der Messumformer erfüllt die Richtlinien DIN EN 61 326 und NAMUR NE 21 hinsichtlich elektromagnetischer Verträglichkeit (EMV).

4 Installation

Der Messumformer 7MF1570 wird am Kabel nach unten hängend eingebaut. Bei bewegten Medien muss der Messumformer befestigt werden, um Messfehler zu verhindern. Dies kann durch ein Führungsrohr oder ein zusätzliches Gewicht am Messumformer (max. Zugkraft am Tragseil des Anschlusskabels 300 N) erfolgen.

Generell ist das Kabel über den Behälter mit der mitgelieferten Abspannklemme 7MF1570-8AB zu befestigen und das Kabel selbst mit der ebenfalls mitgelieferten Kabeldose 7MF1570-8AA anzuschließen. Die Kabeldose ist an einem ihrer Schutzart entsprechenden Ort (IP66) in der Nähe der Messstelle zu montieren.

Es ist darauf zu achten, dass die Eintrittsöffnungen an der Schutzkappe des Messumformers nicht verschmutzen, um die einwandfreie Funktion zu gewährleisten.



HINWEIS

Das Medium darf nicht einfrieren.

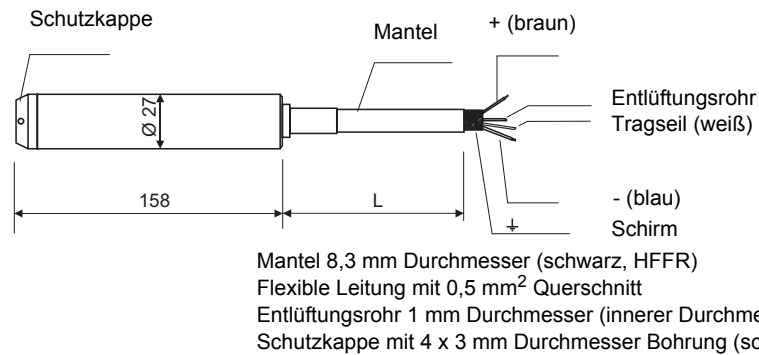


Bild 3 Messumformer 7MF1570, Maße

5 Verbindungsleitungen

Der Messumformer 7MF1570 für die Füllstandmessung (Schutzart IP68 nach DIN EN 60 529) ist an die Kabeldose 7MF1570-8AA (IP54) angeschlossen. Das Kabel des Messumformers wird an die Klemmen 1(-), 2(+) und an die Erdung (Bild 4) angeschlossen werden. Das Tragseil wird in dem Befestigungsteil zwischen den zwei Schrauben geklemmt. Das Entlüftungsrrohr muss in Verbindung mit der Atmosphäre innerhalb der Dose stehen.

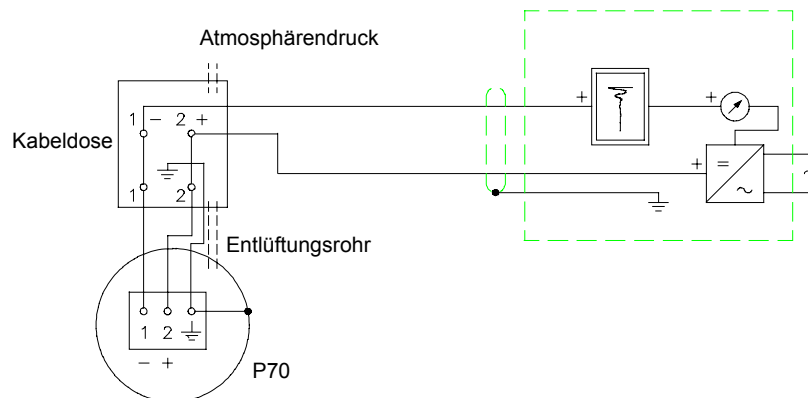


Bild 4 Messumformer 7MF1570, Anschlussschema

Die Speisespannung des Messumformers darf in einem Bereich von 10 bis 36 V DC liegen. Der Widerstandswert für die grösste Belastung hängt von der Spannung U_B ab. Er wird nach folgender Gleichung ermittelt:

$$R_{\max} = \frac{U_B - 10 \text{ V}}{20 \text{ mA}} \text{ (kOhm)}$$

6 Kalibrierung

Der Messumformer wurde im Herstellerwerk auf den Messbereich kalibriert und kann nicht nachkalibriert werden.

7 Wartung

Für den Messumformer ist keine Wartung erforderlich.

Bei der Anwendung des Geräts ist folgendes besonders zu beachten:

- Der grösste zugelassene Druck p_{max} des Messumformers darf nicht überschritten werden.
- Die Temperatur des Mediums im Kontakt mit dem Messumformer darf 80°C nicht überschreiten.
- Eisbildung an dem Prozesseingang des Gebers vermeiden, weil dadurch die Messmembrane beschädigt werden kann.
- Die Verschmutzung des Sensoreingangs verhindern.
- Die Behinderung des Entlüftungsrohres in dem Sonderkabel vermeiden (Einfluss auf die Messgenauigkeit).

8 Bestelldaten

Messumformer SITRANS P für Druck, Serie MPS (Brunnensonde)

Zweileitertechnik

Hinweis: Kabeldose und Abspannklemme sind im Lieferumfang enthalten.

| Messbereich | Kabellänge L | |
|---------------------------|--------------|---|
| 0 bis 2 mH ₂ O | 10 m | <div style="display: flex; justify-content: space-between; align-items: center;"> 7MF1570-1 A0 </div> <div style="display: flex; justify-content: center; align-items: center; margin: 5px 0;"> ↑ </div> <div style="display: flex; justify-content: center; align-items: center; margin: 5px 0;"> ↑ </div> <div style="display: flex; justify-content: center; align-items: center; margin: 5px 0;"> C </div> <div style="display: flex; justify-content: center; align-items: center; margin: 5px 0;"> D </div> <div style="display: flex; justify-content: center; align-items: center; margin: 5px 0;"> E </div> <div style="display: flex; justify-content: center; align-items: center; margin: 5px 0;"> F </div> <div style="display: flex; justify-content: center; align-items: center; margin: 5px 0;"> G </div> <div style="display: flex; justify-content: center; align-items: center; margin: 5px 0;"> K </div> <div style="display: flex; justify-content: center; align-items: center; margin: 5px 0;"> L </div> <div style="display: flex; justify-content: center; align-items: center; margin: 5px 0;"> M </div> <div style="display: flex; justify-content: center; align-items: center; margin: 5px 0;"> N </div> <div style="display: flex; justify-content: center; align-items: center; margin: 5px 0;"> P </div> <div style="display: flex; justify-content: center; align-items: center; margin: 5px 0;"> X </div> |

| | |
|-----------------------------|-------|
| 0 bis 2 mH ₂ O | 10 m |
| 0 bis 4 mH ₂ O | 10 m |
| 0 bis 6 mH ₂ O | 25 m |
| 0 bis 10 mH ₂ O | 25 m |
| 0 bis 20 mH ₂ O | 25 m |
| 0 bis 6 ftH ₂ O | 32 ft |
| 0 bis 12 ftH ₂ O | 32 ft |
| 0 bis 18 ftH ₂ O | 82 ft |
| 0 bis 30 ftH ₂ O | 82 ft |
| 0 bis 60 ftH ₂ O | 82 ft |

Sondermessbereich/Sonderkabellänge¹⁾ (Messbereich und Kabellänge im Klartext angeben)

Explosionsschutz

| | |
|--|---|
| • ohne Explosionsschutz | 1 |
| • mit Explosionsschutz Schutzart "Eigensicherheit" EEx ia IIC T4 | 2 |

Zubehör (als Ersatzteil)

Kabeldose für den Anschluss des Messumformerkabels **7MF1570-8AA**

Abspannklemme zur Befestigung des Messumformers **7MF1570-8AB**

¹⁾ Es sind Sondermessbereich zwischen 0 ... 1 mH₂O (0 ... 3 ftH₂O) und 0 ... 100 mH₂O (0 ... 200 ftH₂O) und Sonderkabellängen bis 200 m (600 ft) möglich. Bei Ex-Ausführungen ist eine max. Sonderkabellänge von 50 m (150 ft) möglich.

9 Technische Daten

| | |
|--|--|
| Eingang | Druck |
| Messgröße | Überlastgrenze |
| Messbereich | 1,4 bar (20.3 psi) (= 14 mH ₂ O/42 ftH ₂ O) |
| • 0 bis 2 mH ₂ O | 1,4 bar (20.3 psi) (= 14 mH ₂ O/42 ftH ₂ O) |
| • 0 bis 4 mH ₂ O | 3,0 bar (43.5 psi) (= 30 mH ₂ O/90 ftH ₂ O) |
| • 0 bis 6 mH ₂ O | 3,0 bar (43.5 psi) (= 30 mH ₂ O/90 ftH ₂ O) |
| • 0 bis 10 mH ₂ O | 6,0 bar (87.0 psi) (= 60 mH ₂ O/180 ftH ₂ O) |
| • 0 bis 20 mH ₂ O | |
| Ausgang | |
| Ausgangssignal | 4 bis 20 mA |
| Messgenauigkeit | |
| Messabweichung (einschließlich Nichtlinearität, Hysterese und Wiederholbarkeit, bei 25 °C (77 °F)) | 0,2 % vom Messbereichsendwert |
| Einfluss der Umgebungstemperatur | |
| • Nullpunkt und Spanne | |
| - zwischen 1 und 6 mH ₂ O (zwischen 3 und 18 ftH ₂ O) | 0,45 %/10 K (0,45 %/18 °F) vom Messbereichsendwert |
| - ≥ 6 mH ₂ O (≥ 18 ftH ₂ O) | 0,3 %/10 K (0,3 %/18 °F) vom Messbereichsendwert |
| Langzeitstabilität | |
| • Nullpunkt und Spanne | |
| - zwischen 1 und 6 mH ₂ O (zwischen 3 und 18 ftH ₂ O) | 0,25 % vom Messbereichsendwert/Jahr |
| - ≥ 6 mH ₂ O (≥ 18 ftH ₂ O) | 0,2 % vom Messbereichsendwert/Jahr |
| Vibrationseffekt (10 bis 500 Hz in jeder Achsenrichtung) | 0,05 %/g vom Messbereichsendwert |
| Einfluss der Hilfsenergie | 0,01 %/V vom Messbereichsendwert |
| Einsatzbedingungen | |
| Umgebungsbedingungen | |
| • Arbeitstemperatur | -10 bis +80 °C (+14 bis +176 °F) |
| • Lagerungstemperatur | -40 bis +100 °C (-40 bis +212 °F) |
| Schutzart nach DIN EN 60 529 | IP68 |
| Elektromagnetische Verträglichkeit | |
| • Störfestigkeit | nach DIN EN 61 326, NAMUR NE 21 |
| Konstruktiver Aufbau | |
| Gewicht | |
| • Messumformer | 0,4 kg (0.88 lb) |
| • Kabel | 0,08 kg/m (0.054 lb/ft) |
| Elektrischer Anschluss | Kabel mit 2 Leitern mit Schirm und Entlüftungsrohr, Tragseil (max. 300 N (67.7 lbf)) |
| Werkstoff | |
| • Sensor | Edelstahl, W.-Nr. 1.4571/316Ti |
| • Gehäuse | Edelstahl, W.-Nr. 1.4571/316Ti |
| • O-Ring | Viton |
| • Anschlusskabel | PE/HFFR-Mantel (nicht-halogen) |
| Hilfsenergie | |
| Klemmenspannung am Messumformer U_B | DC 10 bis 36 V |
| Verpolungsschutz | ja |
| Überspannungsschutz | ja |
| Bürde | $R_B = (U_B - 10 \text{ V}) / 0,02 \text{ A in } \Omega$ |
| Zertifikate und Zulassungen | |
| Das Gerät unterliegt nicht der Druckgeräterichtlinie 97/23/EC | |
| Explosionsschutz | |
| • Eigensichere Ausführung | |
| - Eigensicherheit "i" | TÜV 03 ATEX 2004X |
| - Kennzeichnung | II 1G EEx ia IIC Tv |
| - Zul. Umgebungstemperatur | -10 bis +80 °C (14 bis 176 °F) |
| - Anschluss an bescheinigte eigensichere Stromkreise mit den Höchstwerten: | $U_i = 30 \text{ V}, I_i = 100 \text{ mA}, P_i = 750 \text{ mW}$ |
| - Wirksame innere Induktivität und Kapazität in Abhängigkeit der Länge des Anschlusskabels | $L_i = 165 \mu\text{H} + 1,5 \mu\text{H/m}, C_i = 38,3 \text{ nF} + 0,25 \text{ nF/m}$ |

10 Optionen/Ersatzteile

10.1 Kabeldose 7MF1570-8AA

| | |
|---|--|
| Anwendungsbereich | für den Anschluss des Messumformerkabels |
| Konstruktiver Aufbau | |
| Gewicht | 0,2 kg (0.44 lb) |
| Elektrischer Anschluss | 2 x 3-fach (28 bis 18 AWG) |
| Kabeleinführung | 2 x Pg 13,5 |
| Gehäusewerkstoff | Polycarbonat |
| Entlüftungsröhr für atmosphärischen Druck | |
| Schraube für Tragseil | |
| Einsatzbedingungen | |
| Schutzart nach DIN EN 60 529 | IP66 |

- (1) Befestigungsbohrung
(2) Entlüftungsventil

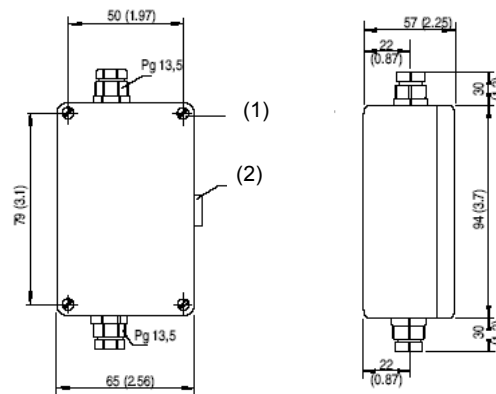
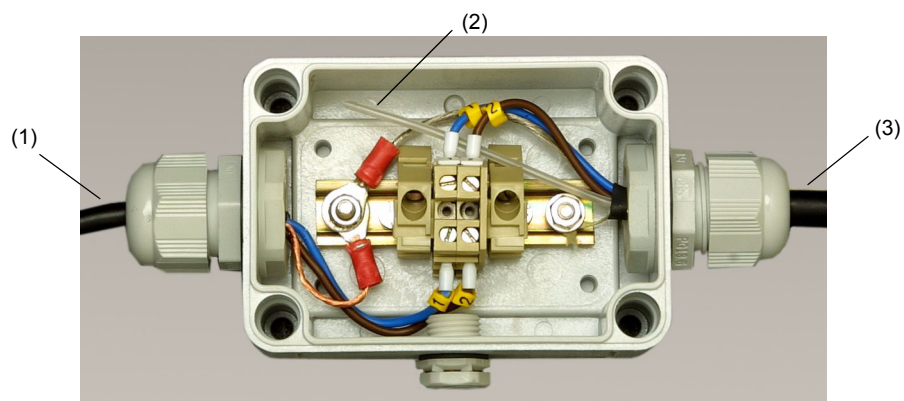


Bild 5 Kabeldose, Maße in mm (inch)



- (1) Zur Messwertverarbeitung
(2) Entlüftungsrohr
(3) Zum Messumformer 7MF1570

Bild 6 Kabeldose, geöffnet

10.2 Abspannklemme 7MF1570-8AB

| | |
|-----------------------------|-----------------------------------|
| Anwendungsbereich | zur Befestigung des Messumformers |
| Konstruktiver Aufbau | |
| Gewicht | 0,16 kg (0.35 lb) |
| Werkstoff | Stahl verzinkt, Polyamid |

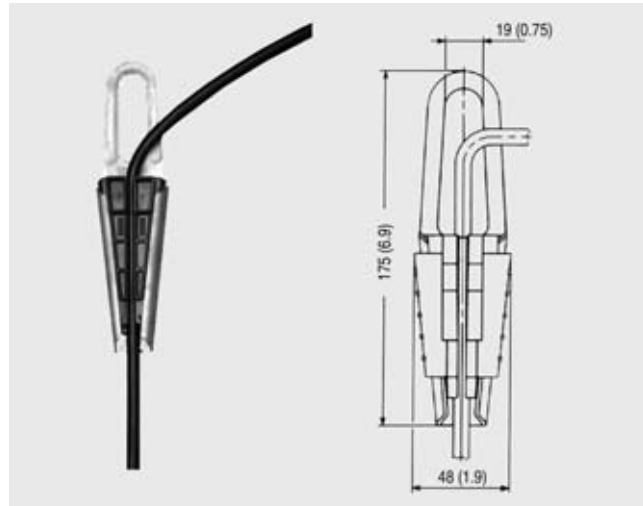


Bild 7 Abspannklemme, Maße in mm (inch)

10.3 Messstellenaufbau



Bild 8 Messstellenaufbau prinzipiell

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Safety Guidelines

These instructions contains notices intended to ensure personal safety, as well as to protect the products and connected equipment against damage. These notices are highlighted by the symbols shown below and graded according to severity by the following texts:



DANGER

indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



WARNING

indicates hazardous situation which, if no avoided, **could** result in death or serious injury.



CAUTION

used with the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION

used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

NOTICE

NOTICE used without safety alert symbol indicates a potential situation which, if not avoided, may result in an undesirable result or state.



NOTE

indicates a reference to a possible advantage when this recommendation is followed.

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We have checked the contents of these instructions for agreement with the hardware and software described. Since deviations cannot be precluded entirely, we cannot guarantee full agreement. However, the data in these instructions are reviewed regularly and any necessary corrections included in subsequent editions. Suggestions for improvement are welcomed.

Siemens AG
Bereich Automatisierungs- und Antriebstechnik
Geschäftsgebiet Process Instrumentation and Analytics
D-76181 Karlsruhe

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Technical data subject to change.

General Notes



NOTE

Dear customer,

for reasons of clarity the instructions does not contain detailed information about all types of products and cannot take into account every conceivable case of installation, operation or maintenance.

If you require further information or should problems occur which are not sufficiently explained in the instructions, you can consult your local Siemens branch to obtain the necessary information.

May we also draw your attention to the fact that the contents of the operating instructions are not part of a previous or existing agreement, approval or legal relationship or an amendment thereof. All obligations of the Siemens AG result from the contract of purchase which also contains the full and solely valid warranty agreement. These contractual warranty conditions are neither extended nor restricted by the contents of the operating instructions.

The contents reflect the technical state at the time of going to print. Subject to technical modifications in the course of further development.



WARNING

Intrinsically safe devices lose their license as soon as they are operated on circuits which do not meet the requirements of the examination certificate valid in your country.

The device may be operated with high pressure and corrosive media. Therefore serious injuries and/or considerable material damage cannot be ruled out in the event of improper handling of the device.

The perfect and safe operation of this equipment is conditional upon proper transport, proper storage, installation and assembly as well as on careful operation and commissioning.

The equipment may only be used for the purposes specified in this operating instructions.

Excluded Liability:

The user is responsible for all changes made on the device, provided that these are not explicitly mentioned in the instructions.

Qualified Personnel

are persons familiar with the installation, assembly, commissioning and operation of the product and who have the appropriate qualifications for their activities such as:

- training or instruction or authorization to operate and maintain devices/systems according to the standard of safety technology for electrical circuits, high pressures and corrosive as well as hazardous media.
- for devices with explosion protection: training or instruction or authorization to be allowed to work on electrical circuits for potentially explosive systems.
- training or instruction according to the standards of safety engineering in the care and use of suitable safety equipment.

CAUTION

Modules which are sensitive to electrostatic charge may be destroyed by voltages which are far below the human level of perception. These voltages occur already when you touch a component or electrical connections of a module without first discharging yourself electrostatically. The damage incurred by a module as a result of an overvoltage is not usually immediately perceptible but only becomes noticeable after a long time in operation. Therefore, a suitable equipotential bonding must be guaranteed when repairing the device.

Trademarks

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1 Design

The transmitter has a flush-mounted piezo-resistive sensor with stainless steel diaphragm.

The transmitter is equipped with an electronic circuit fitted together with the sensor in a stainless steel housing. the cable also contains a strength cord and vent pipe.

The diaphragm is protected against external influences by a protective cap.

The sensor, electronic circuit and cable are sealed in a common housing of small dimensions.

The transmitter is temperature-compensated for a wide temperature range.

2 Application

The 7MF1570 transmitter is used for hydrostatic measurement of liquid levels, e.g. in water supply, ship installations, in the oil and gas industry etc. The transmitter measures the hydrostatic pressure ($p = \rho * g * h$, with ρ - density of the liquid, g - acceleration due to gravity, h - height of the liquid column).

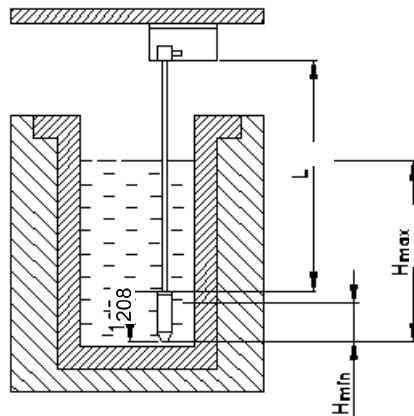


Figure 1 Transmitter 7MF1570, measuring the liquid level in open vessels

The chemical stability of sensor, housing, o-ring and connection cable with the material should be monitored.

3 Mode of operation

The pressure of the medium acts on the stainless steel diaphragm which is deflected to transmit the pressure to the piezo-resistive bridge in the measuring sensor. Every sensor is compensated for changes in temperature and operates within a wide temperature range.

The output voltage signal of the sensor is fed to an electronic circuit which converts it into an output current in the range from 4 to 20 mA. The hydrostatic pressure which is proportional to the submersion depth acts on the diaphragm of the sensor. This pressure is compared with the atmospheric pressure which acts on the other side of the sensor by means of the vent pipe in the connecting cable. The cable screen is connected to the housing.

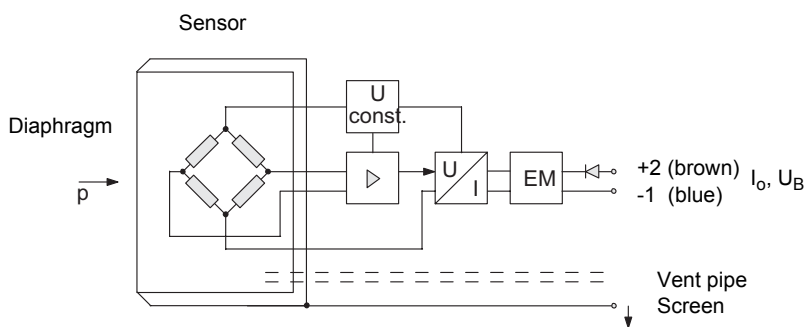


Figure 2 Transmitter 7MF1570, block diagram

The transmitter is supplied from a 10 V to 36 V DC source. Protective diodes at the input protect against reverse polarity or overvoltage. The transmitter complies with the regulations DIN EN 61 326 and NAMUR NE 21 regarding the electromagnetic compatibility (EMC).

4 Installation

The transmitter 7MF1570 is installed hanging downwards on the cable. In moving media, the transmitter must be fixed to prevent measuring errors. This can be done with a guide tube or an additional weight on the transmitter (max. tensile force on the strength cord of the connecting cable = 300 N).

The cable should be fixed above the vessel with the provided cable hanger 7MF1570-8AB and to connect the cable itself to the also provided junction box 7MF1570-8AA. The junction box must be mounted in the proximity of the measuring point in a position compatible with its degree of protection (IP66).

Make sure that the inlet openings on the protective cap of the transmitter are not soiled in order to guarantee perfect functioning.



NOTE

The medium may not freeze.

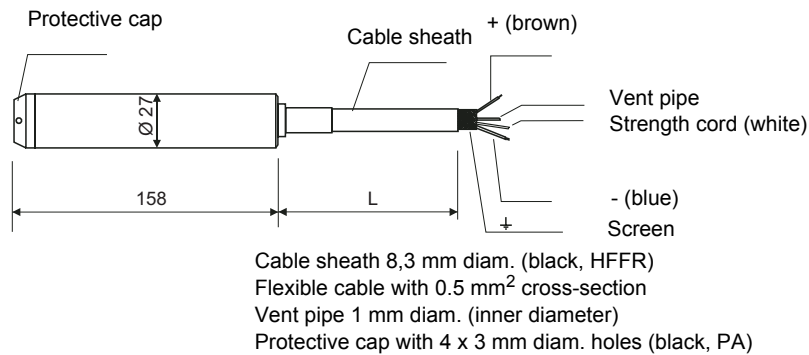


Figure 3 Transmitter 7MF1570, dimensions

5 Connecting cables

The transmitter 7MF 1570 for measuring liquid levels (degree of protection IP68 according to DIN EN 60 529) is connected to the junction box 7MF 1570-8AA (IP54). The transmitter cable is connected to the terminals 1 (-), 2 (+) and earth (Figure 4). The strength cord is clamped between the two screws in the fixture. The vent pipe must be inside the junction box in connection with the atmosphere.

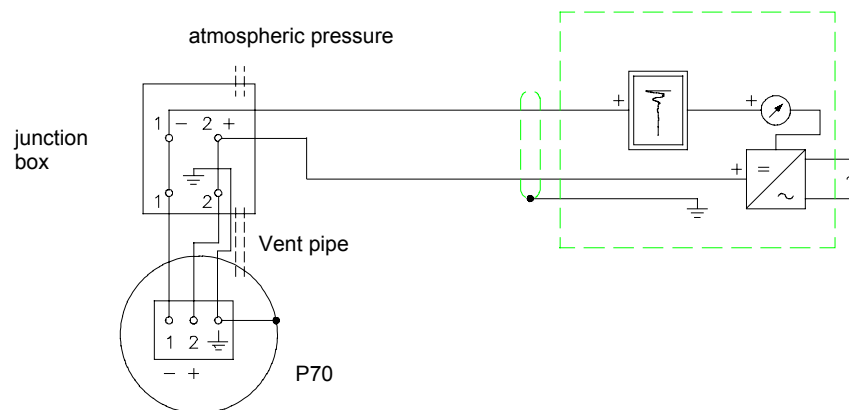


Figure 4 Transmitter 7MF1570, wiring diagram

The feed voltage of the transmitter may be within the range from 10 to 36 V DC. The resistance value for the maximum load depends on the voltage U_B . It is determined by the following equation:

$$R_{\max} = \frac{U_B - 10 \text{ V}}{20 \text{ mA}} \text{ (kOhm)}$$

6 Calibration

The transmitter has been calibrated to the measuring range at the factory and cannot be re-calibrated.

7 Maintenance

The transmitter requires no maintenance.

The following points should be noted particularly when using the device:

- The maximum permissible pressure p_{max} of the transmitter may not be exceeded.
- The temperature of the medium in contact with the transmitter may not exceed 80°C.
- Avoid formation of ice on the process input of the transmitter because this could damage the diaphragm.
- Prevent soiling of the sensor input.
- Avoid obstruction to the vent pipe in the special cable (influences the measuring accuracy).

8 Ordering data

SITRANS P transmitter for pressure, MPS series (submersible sensor)

Two-wire system

Note: Junction box and cable hanger contained in the scope of supply

| Measuring range | Cable length L |
|----------------------------|----------------|
| 0 to 2 mH ₂ O | 10 m |
| 0 to 4 mH ₂ O | 10 m |
| 0 to 6 mH ₂ O | 25 m |
| 0 to 10 mH ₂ O | 25 m |
| 0 to 20 mH ₂ O | 25 m |
| 0 to 6 ftH ₂ O | 32 ft |
| 0 to 12 ftH ₂ O | 32 ft |
| 0 to 18 ftH ₂ O | 82 ft |
| 0 to 30 ftH ₂ O | 82 ft |
| 0 to 60 ftH ₂ O | 82 ft |

Special measuring range/special cable length¹⁾ (specify measuring range and cable length in plain text)

Explosion protection

- without explosion protection
- with explosion protection type of protection "intrinsically safe" EEx ia IIC T4

Accessories (as spare part)

Junction box
for connecting the transmitter cable

7MF1570-1 A0



7MF1570-8AA

Cable hanger
for mounting the transmitter

7MF1570-8AB

¹⁾ Special measuring ranges are possible between 0 ... 1 mH₂O (0 ... 3 ftH₂O) and 0 ... 100 mH₂O (0 ... 200 ftH₂O), and special cable lengths up to 200 m (600 ft). On versions with explosion protection, a maximum special cable length of 50 m (150 ft) is possible.

9 Technical data

| | |
|--|--|
| Input | |
| Measured variable | Pressure |
| Measuring range | Overload limit |
| <ul style="list-style-type: none"> • 0 to 2 mH₂O • 0 to 4 mH₂O • 0 to 6 mH₂O • 0 to 10 mH₂O • 0 to 20 mH₂O | 1.4 bar (20.3 psi) (= 14 mH ₂ O/42 ftH ₂ O) 1.4 bar (20.3 psi) (= 14 mH ₂ O/42 ftH ₂ O) 3.0 bar (43.5 psi) (= 30 mH ₂ O/90 ftH ₂ O) 3.0 bar (43.5 psi) (= 30 mH ₂ O/90 ftH ₂ O) 6.0 bar (87.0 psi) (= 60 mH ₂ O/180 ftH ₂ O) |
| Output | |
| Output signal | 4 to 20 mA |
| Accuracy | |
| Error in measurement (including non-linearity, hysteresis and repeatability, at 25 °C (77 °F)) | 0.2 % of full-scale value |
| Influence of ambient temperature | |
| <ul style="list-style-type: none"> • Zero and span <ul style="list-style-type: none"> - Between 1 and 6 mH₂O (between 3 and 18 ftH₂O) - ≥ 6 mH₂O (≥ 18 ftH₂O) | 0.45 %/10 K (0.45 %/18 °F) of full-scale value/year 0.3 %/10 K (0.3 %/18 °F) of full-scale value/year |
| Long-term drift | |
| <ul style="list-style-type: none"> • Zero and span <ul style="list-style-type: none"> - Between 1 and 6 mH₂O (between 3 and 18 ftH₂O) - ≥ 6 mH₂O (≥ 18 ftH₂O) | 0.25 % of full-scale value/year 0.2 % of full-scale value/year |
| Vibration effect (10 to 500 Hz in any axis) | 0.05 %/g of full-scale value |
| Influence of power supply | 0.01 %/V of full-scale value |
| Rated operating conditions | |
| Ambient conditions | |
| <ul style="list-style-type: none"> • Operating temperature • Storage temperature | -10 to +80 °C (+14 to +176 °F) -40 to +100 °C (-40 to +212 °F) |
| Degree of protection to DIN EN 60 529 | IP68 |
| Electromagnetic compatibility | |
| <ul style="list-style-type: none"> • Noise immunity | To DIN EN 61 326, NAMUR NE 21 |
| Design | |
| Weight | |
| <ul style="list-style-type: none"> • Transmitter • Cable | 0.4 kg (0.88 lb) 0.08 kg/m (0.054 lb/ft) |
| Electrical connection | Cable with 2 conductors with screen and vent pipe, strength cord (max. 300 N (67.7 lbf)) |
| Material | |
| <ul style="list-style-type: none"> • Sensor • Housing • O-ring • Cable | Stainless steel, material no. 1.4571/316Ti Stainless steel, material no. 1.4571/316Ti Viton PE/HFFR sheath (non-halogen) |
| Power supply | |
| Terminal voltage on transmitter U_B | DC 10 to 36 V |
| Polarity reversal protection | Yes |
| Overvoltage protection | Yes |
| Load | $R_B = (U_B - 10 \text{ V}) / 0,02 \text{ A in } \Omega$ |
| Certificates and approvals | |
| The device is not subject to the pressurized equipment directive 97/23/EC | |
| Explosions protection | |
| <ul style="list-style-type: none"> • Intrinsic safety version <ul style="list-style-type: none"> - Intrinsic safety "i" - Identification - Permissible ambient temperature - Connection to certified intrinsically-safe circuits with maximum values - Effective internal inductance and capacitance depending on length of cable | TÜV 03 ATEX 2004X II 1G EEx ia IIC Tv -10 to +80 °C (14 to 176 °F) $U_i = 30 \text{ V}, I_i = 100 \text{ mA}, P_i = 750 \text{ mW}$ $L_i = 165 \mu\text{H} + 1,5 \mu\text{H/m}, C_i = 38,3 \text{ nF} + 0,25 \text{ nF/m}$ |

10 Options / Spare parts

10.1 Junction box 7MF1570-8AA

| | |
|---------------------------------------|--------------------------------------|
| Application | For connecting the transmitter cable |
| Design | |
| Weigth | 0,2 kg (0.44 lb) |
| Electrical connection | 2 x 3-way (28 to 18 AWG) |
| Cable inlet | 2 x Pg 13,5 |
| Housing material | Polycarbonate |
| Vent pipe for atmospheric pressure | |
| Screw for cable strength cord | |
| Rated conditions | |
| Degree of protection to DIN EN 60 529 | IP66 |

- (1) Mounting hole
- (2) Venting pipe

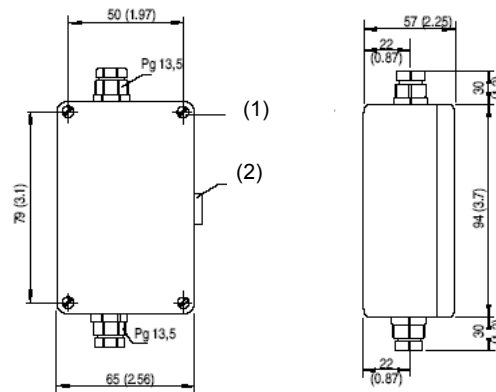
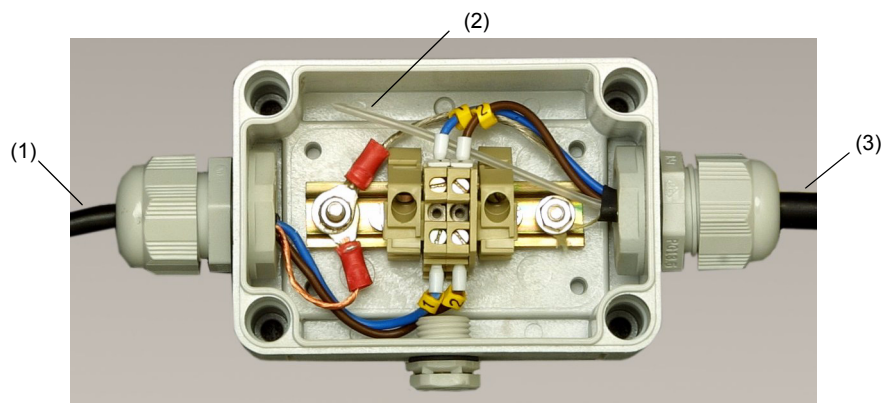


Figure 5 Junction box, dimensions in mm (inch)



- (1) To measured-value processing
- (2) Venting pipe
- (3) To transmitter 7MF1570

Figure 6 Junction box, open

10.2 Cable hanger 7MF1570-8AB

| | |
|--------------------|------------------------------|
| Application | For mounting the transmitter |
| Design | |
| Weight | 0,16 kg (0.35 lb) |
| Material | Galvanized steel, polyamide |

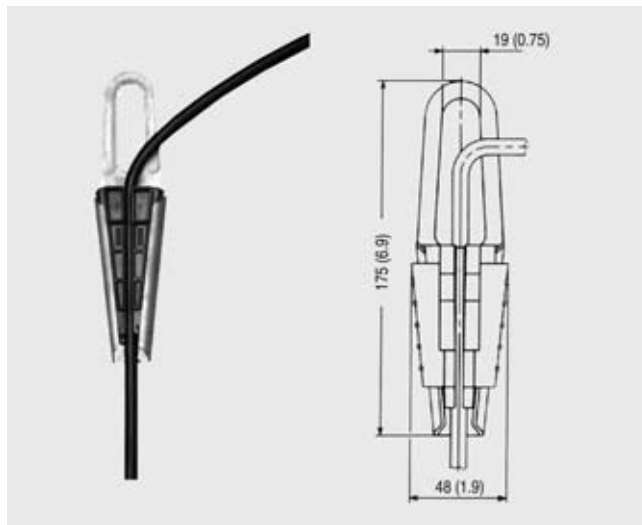


Figure 7 Cable hanger, dimensions in mm (inch)

10.3 Design of measuring point



Figure 8 Basic design of measuring point

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Consignes de sécurité

Ces instructions donne des consignes que vous devez respecter pour votre propre sécurité ainsi que pour éviter des dommages matériels. Elles sont mises en évidence par un triangle d'avertissement et sont présentées, selon le risque encouru, de la façon suivante :



DANGER

indique que la mort, des blessures corporelles graves ou des dommages matériels importants **surviendront** si les précautions correspondantes ne sont pas prises.



AVERTISSEMENT

indique que la mort ou des blessures corporelles graves **peuvent** survenir si les précautions correspondantes ne sont pas prises.



PRUDENCE

avec un triangle d'avertissement indique que des blessures corporelles légères sont possibles si les précautions correspondantes ne sont pas prises.

PRUDENCE

sans un triangle d'avertissement indique que des dommages matériels sont possibles si les précautions correspondantes ne sont pas prises.

ATTENTION

indique qu'un résultat ou une situation indésirable est possible si la remarque correspondante n'est pas observée.



REMARQUE

indique qu'un avantage possible peut être obtenu si la recommandation correspondante est observée.

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Siemens AG
Bereich Automatisierungs- und Antriebstechnik
Geschäftsgebiet Process Instrumentation
D-76181 Karlsruhe

Exclusion de responsabilité

Nous avons vérifié la conformité du contenu de ces présentes instructions avec le matériel et le logiciel qui y sont décrits. Or des divergences n'étant pas exclues, nous ne pouvons pas nous porter garants pour la conformité intégrale. Si l'usage de ce manuel devait révéler des erreurs, nous en tiendrons compte et apporterons les corrections nécessaires dès la prochaine édition. Veuillez nous faire part de vos suggestions.

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Sous réserve de modifications techniques

Généralités



REMARQUE

Pour des raisons de standardisation, les instructions ne contiennent pas toutes les informations détaillées correspondant à toutes les versions du produit et ne tiennent donc pas compte de tous les cas possibles de montage, de fonctionnement ou de maintenance.

Si vous avez besoin d'informations complémentaires ou si vous rencontrez des problèmes particuliers qui ne sont pas suffisamment traités dans ces instructions, vous pouvez vous adresser à la succursale Siemens la plus proche.

En outre, nous attirons votre attention sur le fait que le contenu des instructions ne fait pas partie d'un accord antérieur ou en vigueur, ni d'un engagement ou d'un rapport juridique, et ne peut modifier ceux-ci. Toutes les obligations de Siemens AG sont stipulées dans le contrat de vente qui contient également les conditions de garantie seules valables. Ces clauses contractuelles de garantie ne sont ni étendues, ni limitées par les indications qui figurent dans la notice.

Le contenu correspond à l'état de la technique au moment de la mise sous presse. Sous réserve de modifications techniques dans le cadre de l'évolution du produit.



AVERTISSEMENT

Les appareils avec indice de protection "Sécurité intrinsèque" perdent leur homologation dès qu'ils sont intégrés dans des circuits électriques qui ne correspondent pas aux certificats d'essais en vigueur dans le pays d'installation.

L'appareil peut être utilisé sous une forte pression et dans des milieux corrosifs. De ce fait, des blessures corporelles graves et/ou d'importants dégâts matériels ne sont pas exclus si cet appareil est utilisé de façon non conforme.

Pour que cet appareil fonctionne sans défaut et en toute sécurité, il est indispensable qu'il soit transporté et stocké de façon appropriée, qu'il soit implanté et monté correctement et soigneusement utilisé et entretenu.

Cet appareil doit être mis en œuvre uniquement pour les opérations décrites dans ces instructions.

Exclusion de responsabilité

Toutes les modifications effectuées sur l'appareil qui ne sont pas clairement décrites dans les instructions sont de la responsabilité de l'utilisateur.

Personnel qualifié

Le personnel qualifié désigne les personnes à qui sont confiés l'implantation, le montage, la mise en service et l'exploitation du produit et qui possèdent les qualifications requises pour leur activité, par ex. :

- Formation ou instruction ou autorisation de faire fonctionner et entretenir l'appareil/le système selon les normes techniques de sécurité pour les circuits électriques, les hautes pressions et les environnements agressifs ou dangereux.
- Pour les appareils avec protection contre les explosions : formation ou instruction ou autorisation d'effectuer des travaux sur les circuits électriques pour des installations avec protection contre les explosions
- Formation ou instruction selon les normes techniques de sécurité pour l'entretien et l'utilisation d'équipement de sécurité appropriés.

PRUDENCE

Les modules sensibles à l'électricité statique peuvent être détruits par des tensions bien inférieures au seuil de perception humain. Ces tensions surviennent déjà lorsque vous touchez un composant ou des contacts électriques d'un module sans être électrostatiquement déchargé. Le dommage occasionné à un module par une surtension n'est généralement pas détectable immédiatement et ne se manifeste qu'au bout d'une durée prolongée de fonctionnement.

Marque de fabrique

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1 Constitution

Le transmetteur de niveau comporte à son extrémité un capteur piézorésistif avec membrane de mesure en acier inoxydable.

Le transmetteur est équipé d'une électronique montée dans un boîtier en acier inoxydable conjointement avec le capteur. Le câble de raccordement intègre aussi une corde de suspension et un tube atmosphérique.

La membrane de mesure est protégée efficacement des influences externes par un capuchon.

Le capteur, l'électronique et l'entrée du câble de raccordement sont logés dans un boîtier hermétique de petites dimensions.

Le transmetteur est compensé en température pour une large gamme de température.

2 Domaine d'application

Le transmetteur 7MF1570 est utilisé pour la mesure de niveau hydrostatique, par ex. pour les systèmes d'adduction d'eau, dans des installations sur navires, dans l'industrie pétrolière ou gazière, etc. Le transmetteur sert à mesurer la pression hydrostatique ($p = \rho * g * h$, avec ρ - densité du liquide, g - gravité de la pesanteur, h - hauteur de la colonne de liquide).

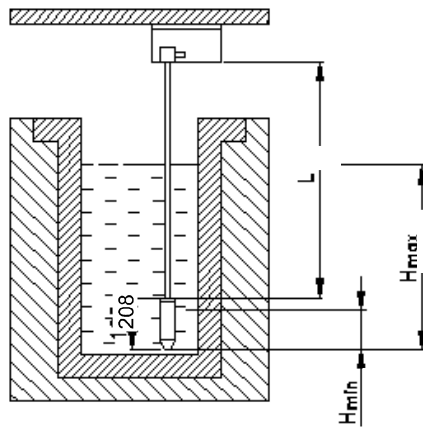


Figure 1 Transmetteur 7MF1570, mesure de niveau en conteneurs ouverts

Il est nécessaire de faire attention à la résistance chimique du capteur, du boîtier, du joint torique et du câble de raccordement vis-à-vis du matériau à mesurer.

3 Mode de fonctionnement

La pression du milieu ambiant agit sur la membrane en acier inoxydable, qui se déforme et transmet la pression au pont piézo-résistif du capteur de mesure. Chaque capteur est compensé en température et travaille dans une large gamme de température.

Le signal de tension de sortie du capteur est transmis à une électronique qui le convertit en un courant de sortie de 4 à 20 mA. La pression hydrostatique qui est proportionnelle à la profondeur d'immersion agit sur la membrane du capteur. Cette pression est comparée à la pression atmosphérique qui agit sur l'autre face du capteur au moyen d'un tube atmosphérique intégré dans le câble de raccordement. Le blindage du câble est raccordé au boîtier.

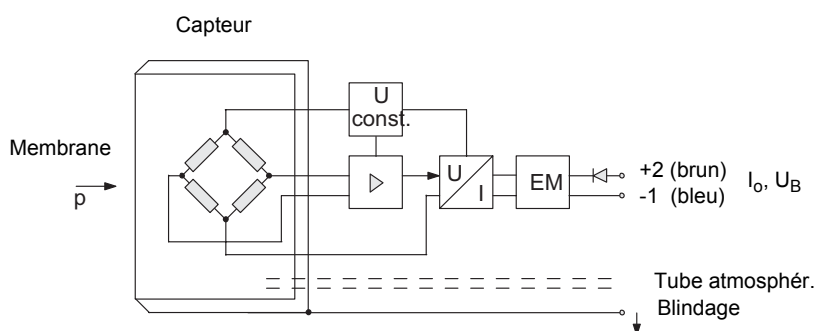


Figure 2 Transmetteur 7MF1570, schéma fonctionnel

Le transmetteur est alimenté par une source de courant continu de 10 à 36 V cc. Les diodes de protection en entrée le protègent contre l'inversion de polarité ou la surtension. Le transmetteur remplit les exigences de la norme DIN EN 61 326 et de la directive NAMUR NE 21 en matière de compatibilité électromagnétique (CEM).

4 Installation

Le transmetteur 7MF1570 est intégré au câble, suspendu vers le bas. Dans les milieux mouvants, le transmetteur doit être fixé pour éviter les erreurs de mesure. Ceci peut être fait grâce à un tube-guide ou à un poids supplémentaire rapporté sur le transmetteur (force de traction max. sur la corde de suspension du câble de raccordement 300 N).

En principe, le câble doit être fixé au-dessus du récipient avec la bélière de suspension 7MF1570-8AB fournie ; le câble doit être par ailleurs raccordé à la boîte de jonction 7MF1570-8AA également fournie. La boîte de jonction doit être montée à un endroit correspondant à sa classe de protection (IP66) à proximité du point de mesure.

Il faut veiller à ce que les orifices d'entrée du capuchon de protection du transmetteur ne s'encrassent pas pour assurer un fonctionnement sans défaut.



REMARQUE

Le milieu ambiant ne doit pas geler.

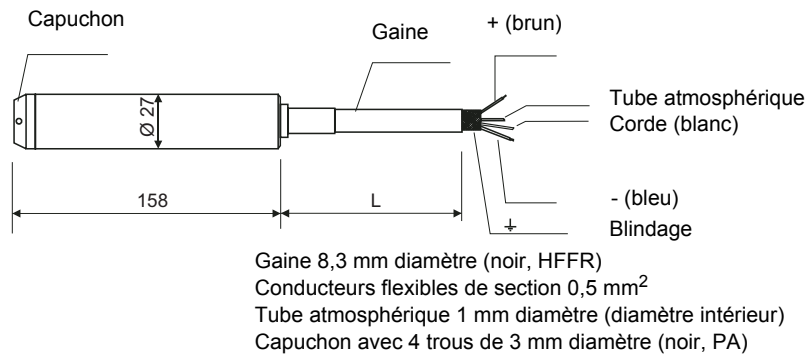


Figure 3 Transmetteur 7MF1570, encombrement

5 Câbles de raccordement

Le transmetteur 7MF1570 pour la mesure de niveau (indice de protection IP68 selon DIN EN 60529) est raccordé à la boîte de jonction 7MF1570-8AA (IP54). Le câble du transmetteur est raccordé aux bornes 1(-), 2(+) et à la masse (Figure 4). La corde de suspension est serrée dans l'élément de fixation entre les deux vis. Le tube atmosphérique doit se trouver en liaison avec l'atmosphère à l'intérieur de la boîte.

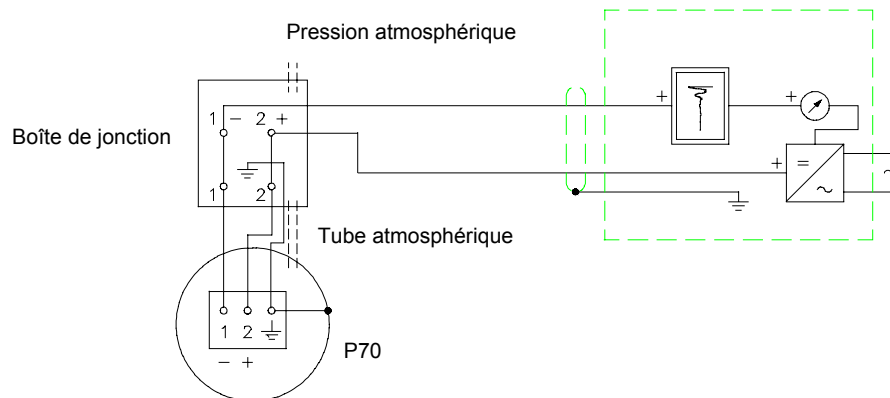


Figure 4 Transmetteur 7MF1570, schéma de connexion

La tension d'alimentation du transmetteur doit se trouver dans une plage de 10 à 36 V cc. La valeur de résistance de la charge la plus élevée dépend de la tension U_B . Elle est calculée selon l'équation suivante :

$$R_{\max} = \frac{U_B - 10 \text{ V}}{20 \text{ mA}} \text{ (kOhm)}$$

6 Calibrage

Le transmetteur à été calibré en usine par le fabricant selon la plage de mesure et n'a pas besoin d'un recalibrage.

7 Maintenance

Le transmetteur ne nécessite aucune maintenance.

Lors de l'utilisation de cet appareil, il faut veiller particulièrement aux points suivants :

- la pression maximale autorisée P_{max} du transmetteur ne doit pas être dépassée.
- la température du milieu en contact avec le transmetteur ne doit pas excéder 80°C.
- la formation de givre à l'entrée du capteur doit être évitée, sous peine d'endommager la membrane de mesure.
- L'entrée du capteur ne doit pas s'encrasser.
- Le tube atmosphérique ne doit pas être gêné dans le câble spécial (influence sur la précision de la mesure).

8 Références de commande

Transmetteur de pression SITRANS P SérieMPS (sonde de puits)

Montage 2 fils

Remarque: la prise de courant du câble et la borne de suspension sont fournies.

Etendue mesure Long. câble L

| | |
|---------------------------|-------|
| 0 à 2 mH ₂ O | 10 m |
| 0 à 4 mH ₂ O | 10 m |
| 0 à 6 mH ₂ O | 25 m |
| 0 à 10 mH ₂ O | 25 m |
| 0 à 20 mH ₂ O | 25 m |
| 0 à 6 ftH ₂ O | 32 ft |
| 0 à 12 ftH ₂ O | 32 ft |
| 0 à 18 ftH ₂ O | 82 ft |
| 0 à 30 ftH ₂ O | 82 ft |
| 0 à 60 ftH ₂ O | 82 ft |

Etendue de mesure spéciale/longueur de câble spéciale ¹⁾ (indiquer l'étendue de mesure et la longueur de câble en texte clair)

Protection contre l'explosion

- Sans protection contre l'explosion
- Avec protection contre l'explosion, mode de protection "sécurité intrinsèque" EEx ia IIC T4

Accessoires (comme pièce de rechange)

Boîte de jonction

pour le raccordement du câble du transmetteur

7MF1570-1 A0

C
D
E
F
G
K
L
M
N
P
X

1
2

Bélère de suspension

pour la suspension du transmetteur

7MF1570-8AA

7MF1570-8AB

¹⁾ Une étendue de mesure spéciale entre 0 ... 1 mH₂O (0 ... 3 ftH₂O) et 0 ... 100 mH₂O (0 ... 200 ftH₂O) et des longueurs de câbles spéciales jusqu'à 200 m (600 ft) sont possibles. Dans le cas des exécutions avec protection contre l'explosion, la longueur max. des câbles est de 50 m (150 ft).

9 Caractéristiques techniques

| | |
|---|--|
| Entrée | |
| Grandeur de mesure | Pression |
| Etendue de mesure | Limite de surcharge |
| • 0 à 2 mH ₂ O | 1,4 bar (20.3 psi) (= 14 mH ₂ O/42 ftH ₂ O) |
| • 0 à 4 mH ₂ O | 1,4 bar (20.3 psi) (= 14 mH ₂ O/42 ftH ₂ O) |
| • 0 à 6 mH ₂ O | 3,0 bar (43.5 psi) (= 30 mH ₂ O/90 ftH ₂ O) |
| • 0 à 10 mH ₂ O | 3,0 bar (43.5 psi) (= 30 mH ₂ O/90 ftH ₂ O) |
| • 0 à 20 mH ₂ O | 6,0 bar (87.0 psi) (= 60 mH ₂ O/180 ftH ₂ O) |
| Sortie | |
| Signal de sortie | 4 à 20 mA |
| Précision de mesure | |
| Ecart de mesure (y compris non linéarité, hystérésis et répétabilité à 25 °C (77 °F)) | 0,2 % de la pleine échelle |
| Influence de température ambiante | |
| • Zéro et plage | |
| - entre 1 et 6 mH ₂ O (entre 3 et 18 ftH ₂ O) | 0,45 %/10 K (0,45 %/18 °F) de la pleine échelle |
| - ≥ 6 mH ₂ O (≥ 18 ftH ₂ O) | 0,3 %/10 K (0,3 %/18 °F) de la pleine échelle |
| Stabilité à long terme | |
| • Zéro et plage | |
| - entre 1 et 6 mH ₂ O (entre 3 et 18 ftH ₂ O) | 0,25 % de la pleine échelle/an |
| - ≥ 6 mH ₂ O (≥ 18 ftH ₂ O) | 0,2 % de la pleine échelle/an |
| Effet de vibrations (10 à 500 Hz suivant chaque axe et chaque sens) | 0,05 %/g de la pleine échelle |
| Influence de l'énergie auxiliaire | 0,01 %/V de la pleine échelle |
| Conditions d'emploi | |
| Conditions d'environnement | |
| • Température de service | -10 à +80 °C (+14 à +176 °F) |
| • Température de stockage | -40 à +100 °C (-40 à +212 °F) |
| Degré de protection selon DIN EN 60 529 | IP68 |
| Compatibilité électromagnétique | |
| • Immunité aux perturbations | Selon DIN EN 61 326, NAMUR NE 21 |
| Caractéristiques constructives | |
| Poids | |
| • Transmetteur | 0,4 kg (0.88 lb) |
| • Câble | 0,08 kg/m (0.054 lb/ft) |
| Raccordement électrique | Câble avec 2 conducteurs, blindage, tube atmosphérique, corde de susp. (max. 300 N (67.7 lbf)) |
| Matière | |
| • Capteur | Acier inox, mat. n°. 1.4571/316Ti |
| • Boîtier | Acier inox, mat. n°. 1.4571/316Ti |
| • O-Ring | Viton |
| • Câble de raccordement | Gaine PE/HFFR (sans halogène) |
| Alimentation | |
| Tension aux bornes du transmetteur U_B | DC 10 à 36 V |
| Protection contre inversion de polarité | oui |
| Protection contre les surcharges | oui |
| Charge | $R_B = (U_B - 10 V) / 0,02 A$ in Ω |
| Certificats et homologations | |
| L'appareil n'est pas soumis à la directive sur les appareils sous pression. | |
| Protection contre l'explosion | |
| • Exécution en sécurité intrinsèque | |
| - Sécurité intrinsèque "i" | TÜV 03 ATEX 2004X |
| - Marquage | II 1G EEx ia IIC Tv |
| - Température ambiante adm. | -10 à +80 °C (14 à 176 °F) |
| - Raccordement sur circuits certifiés de sécurité intrinsèque de valeurs max.: | $U_i = 30 V$, $I_i = 100 mA$, $P_i = 750 mW$ |
| - Inductance interne effective et capacité en fonction de la longueur du câble de raccordement. | $L_i = 165 \mu H + 1,5 \mu H/m$, $C_i = 38,3 nF + 0,25 nF/m$ |

10 Options / Pièce de rechange

10.1 Boîte de jonction 7MF1570-8AA

| | |
|--|---|
| Application | pour le raccordement du câble du transmetteur |
| Caractéristiques constructives | |
| Poids | 0,2 kg (0.44 lb) |
| Raccordement électrique | 2 x 3 conduct. (28 à 18 AWG) |
| Entrées de câbles | 2 x Pg 13,5 |
| Matière de la boîte | Polycarbonate |
| Tube atmosphérique (pour pression atmosphérique) | |
| Vis pour corde de suspension | |
| Conditions d'emploi | |
| Degré de protection selon DIN EN 60 529 | IP66 |

- (1) Trous de fixation
- (2) Aération

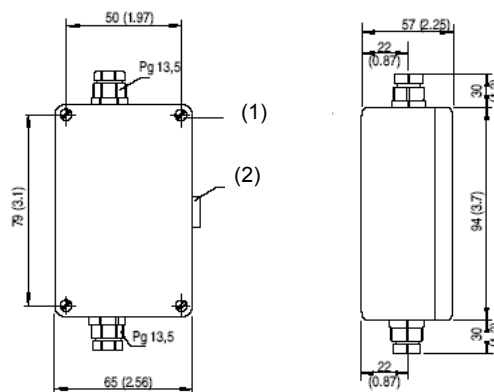
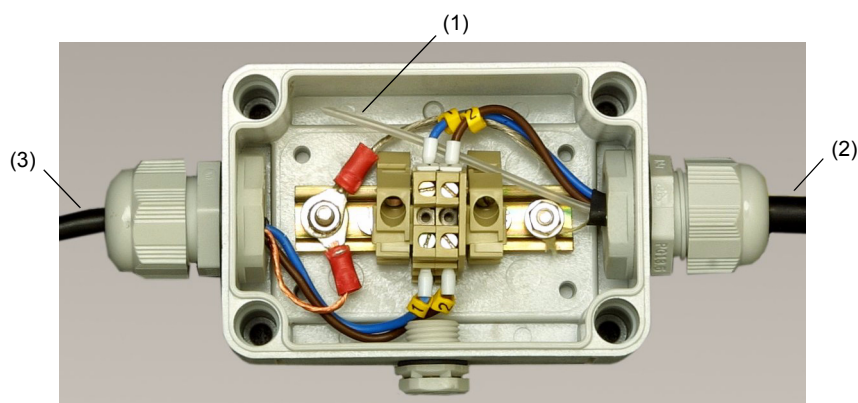


Figure 5 Boîte de jonction, encombrement en mm (inch)



- (1) Tube d'aération
- (2) Vers le transmetteur de mesure 7MF1570
- (3) Vers le traitement des valeurs mesurées

Figure 6 Boîte de jonction, ouvert

10.2 Bélière de suspension 7MF1570-8AB

| | |
|---------------------------------------|------------------------------------|
| Application | pour la suspension du transmetteur |
| Caractéristiques constructives | |
| Poids | 0,16 kg (0.35 lb) |
| Matière | acier galvanisé, polyamide |

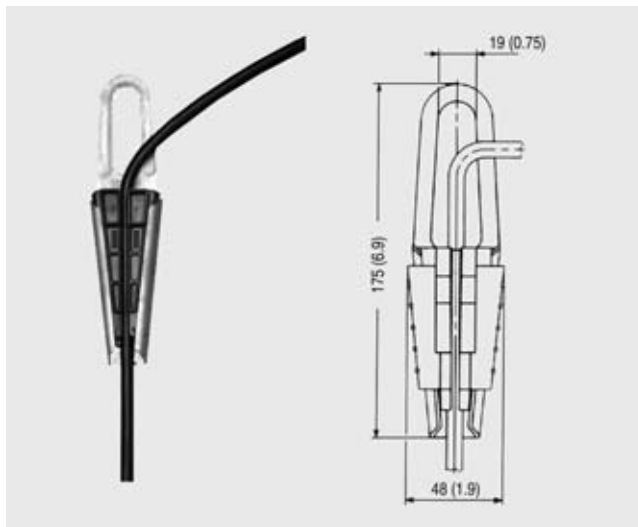


Figure 7 Bélière de suspension, encombrement en mm (inch)

10.3 Design du point de mesure



Figure 8 Design du point de mesure, par principe

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Consignas de seguridad para el usuario

Este manual contiene las informaciones necesarias para la seguridad personal así como para la prevención de daños materiales. Las informaciones están puestas de relieve mediante señales de precaución. Las señales que figuran a continuación representan distintos grados de peligro:



PELIGRO

Significa que **se producirá** la muerte, graves lesiones o considerables pérdidas materiales, si no se toman las correspondientes medidas de precaución.



ADVERTENCIA

Significa que **se puede producir** la muerte, graves lesiones o considerables pérdidas materiales si no se toman las correspondientes medidas de precaución.



PRECAUCIÓN

con triángulo de advertencia significa que se pueden producir lesiones leves si no se toman las correspondientes medidas de precaución.

PRECAUCIÓN

sin triángulo de advertencia significa que se pueden producir daños materiales si no se toman las correspondientes medidas de precaución.

ATENCIÓN

Significa que se puede producir un evento o un estado no deseado si no se tienen en cuenta las indicaciones correspondientes.



NOTA

significa que se puede obtener una posible ventaja si se atiende a la correspondiente recomendación.

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Siemens AG
Bereich Automatisierungs- und Antriebstechnik
Geschäftsgebiet Process Instrumentation
D-76181 Karlsruhe

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Hemos probado el contenido de esta publicación con la concordancia descrita para el hardware y el software. Sin embargo, es posible que se den algunas desviaciones que nos impiden tomar garantía completa de esta concordancia. El contenido de esta publicación está sometido a revisiones regularmente y en caso necesario se incluyen las correcciones en la siguiente edición. Agradecemos sugerencias

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Indicaciones generales



NOTA

Por razones de claridad las instrucciones no contienen todas las informaciones detalladas correspondientes a todos los tipos del producto e igualmente no se pueden considerar todas las posibilidades de instalación, servicio o mantenimiento.

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ADVERTENCIA

Aparatos del tipo de protección "seguridad intrínseca" pierden su autorización tan pronto funcionen en circuitos de corriente que no correspondan a las certificación de control en su país.

El aparato puede funcionar a altas presiones así como en medios agresivos.

Por esta razón en caso de manipulaciones incorrectas con este aparato no se excluyen graves lesiones y/o considerables pérdidas materiales

Un servicio seguro y correcto de este aparato presupone un transporte, almacenamiento, instalación y montaje adecuados, así como un manejo y mantenimiento cuidadoso.

Exención de responsabilidad

El aparato solamente se puede utilizar para los fines indicados en las instrucciones de servicio.

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Son personas familiarizadas con la instalación, montaje, puesta en marcha y servicio del producto y que disponen de la calificación correspondiente a su trabajo, como por ejemplo:

- Formación o instrucción, o bien autorización para la operación y mantenimiento de aparatos/sistemas conforme al estándar de seguridad técnica para circuitos eléctricos, altas presiones y medios agresivos.
- En aparatos con protección contra explosiones: formación o instrucción, o bien autorización para ejecutar trabajos en circuitos eléctricos de instalaciones con peligro de explosiones.
- Formación o instrucción conforme al estándar de seguridad técnica en cuidado y uso de equipamiento de seguridad apropiado.

PRECAUCIÓN

Grupos constructivos en peligro por cargas electrostáticas pueden ser destruidos por tensiones que se encuentran considerablemente por debajo de la percepción humana. Estas tensiones se presentan cuando usted toca un componente o conexión eléctrica de un grupo constructivo sin estar descargado electrostáticamente. Los daños que se presentan en un grupo constructivo debido a una sobretensión en la mayoría de casos no se reconocen de inmediato, sino se hacen notorios después de un tiempo prolongado de servicio.

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SIMATIC®, SIPART®, SIREC®, SITRANS® son marcas registradas por Siemens AG.

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1 Construcción

El transmisor de presión dispone de un sensor piezorresistivo montado a ras en su cara frontal y dotado de membrana de acero inoxidable.

El transmisor incluye una circuitería electrónica alojada, al igual que el sensor, en una caja de acero inoxidable. El cable de conexión incluye además una cuerda y un tubo de compensación de presión.

Una caperuza de protección permite proteger la membrana de medida de forma eficaz contra los efectos externos.

El sensor, la circuitería electrónica y el extremo del cable de conexión están alojados en una caja de reducidas dimensiones encapsulada de forma estanca.

El transmisor de medida dispone de compensación para un amplio rango de temperatura.

2 Campo de aplicación

El transmisor 7MF1570 se utiliza para la medición hidrostática de nivel de llenado, por ejemplo en el abastecimiento de agua, en instalaciones náuticas, en la industria de gas y de petróleo etc. El transmisor sirve para la medición de la presión hidrostática ($p = \rho * g * h$, con: ρ - densidad del líquido, g - aceleración por gravedad, h - altura de la columna de líquido).

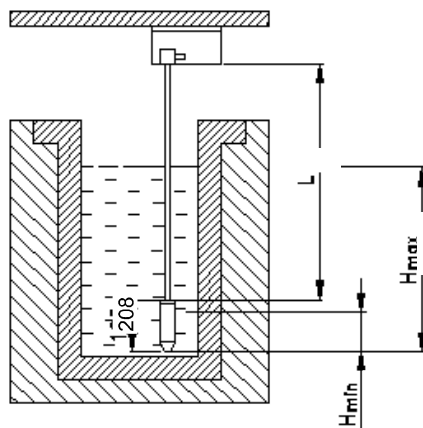


Figura 1 Transmisor 7MF1570, medición de nivel de llenado en recipientes abiertos

Se tienen que observar la resistencia química del sensor, de la caja, de la junta tórica y del cable de conexión frente a la sustancia a medir.

3 Funcionamiento

La presión del medio actúa sobre la membrana de acero inoxidable, la cual es desviada y transmite la presión al puente de piezorresistencias en el sensor de medición. Cada sensor está compensado para los cambios de temperatura y funciona en un amplio rango de temperatura.

La señal de tensión de salida del sensor es conducida a un sistema electrónico el cual la transforma en una corriente de salida en el intervalo de 4 hasta 20 mA. Sobre la membrana del sensor actúa la presión hidrostática, la cual es proporcional a la profundidad de inmersión. Esta presión se compara con la presión atmosférica, la cual a través del tubo de compensación en el cable de conexión actúa sobre el otro lado del sensor. El apantallado del cable está conectado a la caja.

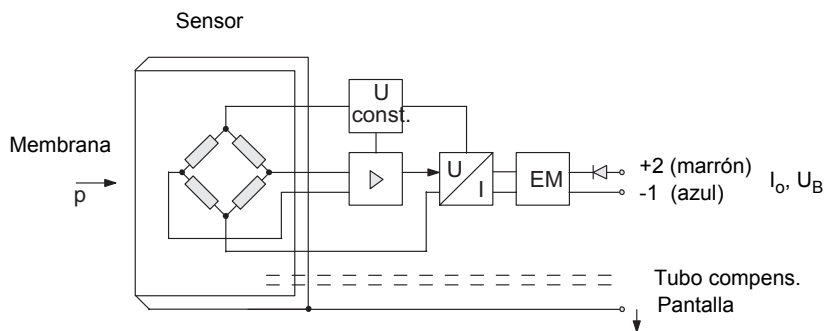


Figura 2 Transmisor 7MF1570, esquema de conexión

El transmisor es alimentado por una fuente de corriente continua de 10 hasta 36 V CC. Diodos de protección a la entrada protegen contra una polaridad invertida o contra una tensión demasiado alta. El transmisor cumple las directrices DIN EN 61 326 y NAMUR NE 21 referentes a la compatibilidad electromagnética (EMV).

4 Instalación

El transmisor 7MF1570 se monta en el cable colgando hacia abajo. En caso de medios en movimiento el transmisor se debe fijar para evitar errores de medición. Esto se puede realizar por medio de un tubo guía o un peso adicional en el transmisor (fuerza de tracción máx, en la cuerda del cable de conexión 300 N).

A nivel general, el cable se tiene que fijar a través del recipiente con la mordaza de fijación 7MF1570-8AB suministrada y el mismo cable se conecta con la caja de interconexión 7MF1570-8AA, igualmente adjunta. La caja de interconexión se tiene que montar en un lugar correspondiente a su modo de protección (IP66) en la proximidad del punto de medida.

Se debe observar que los agujeros de entrada en la caperuza protectora del transmisor no se ensucien, para así poder garantizar un perfecto funcionamiento.



NOTA

El medio no debe congelarse

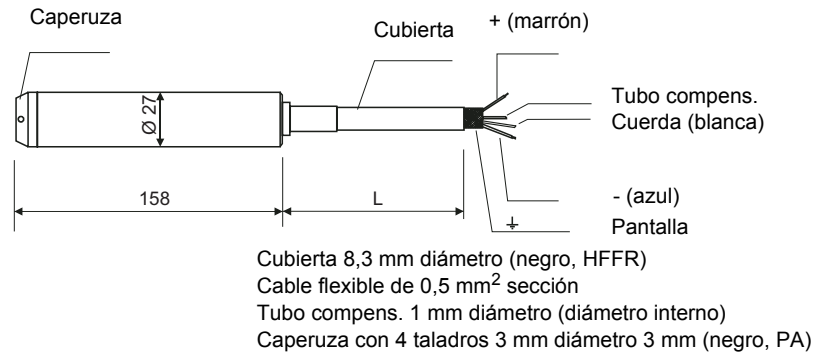


Figura 3 Transmisor 7MF1570, dimensiones

5 Líneas de conexión

El transmisor 7MF1570 para la medición del nivel de llenado (modo de protección IP68 según DIN EN 60 529) está conectado a la caja de interconexión 7MF1570-8AA (IP54). El cable del transmisor se conecta a los bornes 1(-), 2(+) y a tierra (Figura 3). La cuerda se sujeta en la pieza de fijación entre los dos tornillos. El tubo de compensación debe estar en contacto con la atmósfera dentro de la caja.

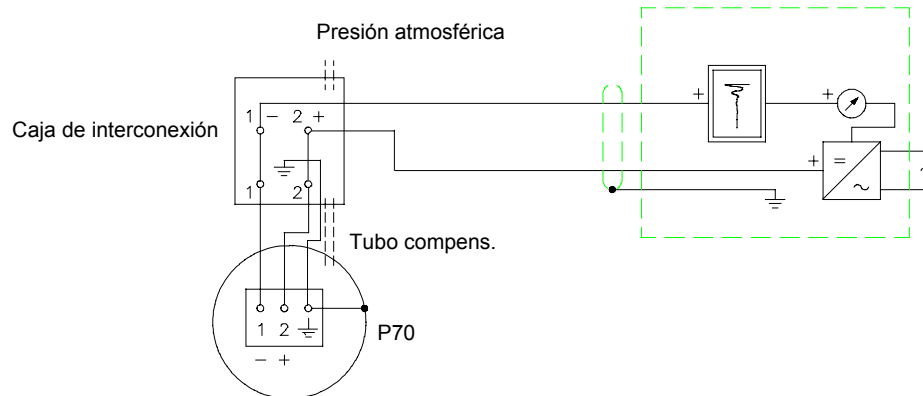


Figura 4 Transmisor 7MF1570, esquema de conexión

La tensión de alimentación del transmisor puede encontrarse en un intervalo de 10 hasta 36 V CC. El valor de resistencia para la carga máxima depende de la tensión U_B . Este se determina según la siguiente ecuación.

$$R_{\max} = \frac{U_B - 10 \text{ V}}{20 \text{ mA}} \text{ (kOhm)}$$

6 Calibrado

El transmisor fue calibrado de fábrica en la gama de medición y no puede recalibrarse.

7 Mantenimiento

Para el transmisor no es necesario ningún mantenimiento

En la utilización del aparato se debe observar lo siguiente:

- No debe excederse la presión máxima admisible $p_{m\acute{a}x.}$ del transmisor.
- La temperatura del medio en contacto con el transmisor no debe exceder 80 °C
- Se debe evitar la formación de hielo a la entrada del proceso del transmisor, ya que esto puede deteriorar la membrana de medición.
- Evitar el ensuciamiento de la entrada de los sensores.
- Evitar la obstrucción del tubo de ventilación en el cable especial (influencia sobre la precisión de medición)

8 Datos de pedido

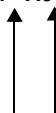
Transmisor SITRANS P para presión, serie MPS (sonda de pozo)

Conexión a dos hilos

Nota: la caja de interconexión y la mordaza de fijación están incluidas en el volumen de suministro.

| Rango de medida | Long. de cable L | |
|--|------------------|-------------|
| 0 a 2 mH ₂ O | 10 m | C |
| 0 a 4 mH ₂ O | 10 m | D |
| 0 a 6 mH ₂ O | 25 m | E |
| 0 a 10 mH ₂ O | 25 m | F |
| 0 a 20 mH ₂ O | 25 m | G |
| 0 a 6 ftH ₂ O | 32 ft | K |
| 0 a 12 ftH ₂ O | 32 ft | L |
| 0 a 18 ftH ₂ O | 82 ft | M |
| 0 a 30 ftH ₂ O | 82 ft | N |
| 0 a 60 ftH ₂ O | 82 ft | P |
| Rango de medición especial/longitud de cable especial ¹⁾ (indicar el rango de medición y la longitud del cable en lenguaje claro) | | X |
| Protección contra explosión | | |
| • sin protección contra explosión | | 1 |
| • con prot. contra explosión, modo de protección "Seguridad intrínseca" EEx ia IIC T4 | | 2 |
| Accesorios (como repuesto) | | |
| Caja de interconexión para conectar el cable del transmisor | | 7MF1570-8AA |
| Mordaza de suspensión para amarrar el transmisor | | 7MF1570-8AB |

7MF1570-1 A0



C
D
E
F
G
K
L
M
N
P
X

¹⁾ Son posibles rangos de medición entre 0 ... 1 mH₂O (0 ... 3 ftH₂O) y 0 ... 100 mH₂O (0 ... 200 ftH₂O) y longitudes de cable especial de hasta 200 m (600 ft). En las ejecuciones con protección contra explosiones (Ex) es posible una longitud de cable especial de máximo 50 m (150 ft).

9 Datos técnicos

| | |
|--|--|
| Entrada | |
| Magnitud a medir | Presión |
| Rango de medida | Límite de sobrecarga |
| <ul style="list-style-type: none"> • 0 a 2 mH₂O • 0 a 4 mH₂O • 0 a 6 mH₂O • 0 a 10 mH₂O • 0 a 20 mH₂O | 1,4 bar (20.3 psi) (= 14 mH ₂ O/42 ftH ₂ O) 1,4 bar (20.3 psi) (= 14 mH ₂ O/42 ftH ₂ O) 3,0 bar (43.5 psi) (= 30 mH ₂ O/90 ftH ₂ O) 3,0 bar (43.5 psi) (= 30 mH ₂ O/90 ftH ₂ O) 6,0 bar (87.0 psi) (= 60 mH ₂ O/180 ftH ₂ O) |
| Salida | |
| Señal de salida | 4 a 20 mA |
| Precisión de medida | |
| Error de medida (inclusive no linealidad, histéresis y repetibilidad, a 25 °C (77 °F)) | 0,2 % del valor final del rango |
| Efecto de la temperatura ambiente | |
| <ul style="list-style-type: none"> • Cero y alcance - entre 1 y 6 mH₂O (entre 3 y 18 ftH₂O) - ≥ 6 mH₂O (≥ 18 ftH₂O) | 0,45 %/10 K (0,45 %/18 °F) del valor final del rango 0,3 %/10 K (0,3 %/18 °F) del valor final del rango |
| Estabilidad a largo plazo | |
| <ul style="list-style-type: none"> • Cero y alcance - entre 1 y 6 mH₂O (entre 3 y 18 ftH₂O) - ≥ 6 mH₂O (≥ 18 ftH₂O) | 0,25 % del valor final del rango/año 0,2 % del valor final del rango/año |
| Efecto de las vibraciones (10 a 500 Hz en cada sentido de los ejes) | 0,05 %/g del valor final del rango |
| Efecto de la alimentación auxiliar | 0,01 %/V del valor final del rango |
| Condiciones de aplicación | |
| Condiciones ambientales | |
| <ul style="list-style-type: none"> • Temperatura de trabajo • Temperatura de almacenamiento | -10 a +80 °C (+14 a +176 °F) -40 a +100 °C (-40 a +212 °F) |
| Grado de protección según DIN EN 60 529 | IP68 |
| Compatibilidad electromagnética | |
| <ul style="list-style-type: none"> • Inmunidad | según DIN EN 61 326, NAMUR NE 21 |
| Construcción mecánica | |
| Peso | |
| <ul style="list-style-type: none"> • Transmisor • Cable | 0,4 kg (0.88 lb) 0,08 kg/m (0.054 lb/ft) |
| Conexión eléctrica | Cable con 2 conductores con patalla y tubo de compensaciones, cuerda (máx. 300 N (67.7 lbf)) |
| Material | |
| <ul style="list-style-type: none"> • Sensor • Caja • Junta tórica • Cable de conexión | Acero inox., N° de mat. 1.4571/316Ti Acero inox., N° de mat. 1.4571/316Ti Viton Cubierta de PE/HFFR (no halógeno) |
| Alimentación auxiliar | |
| Tensión en bornes del transmisor U_B | DC 10 a 36 V |
| Protección contra inversión de polaridad | sí |
| Protección contra sobretensión | sí |
| Carga | $R_B = (U_B - 10 V) / 0,02 A$ en Ω |
| Certificados y aprobaciones | |
| El aparato no está sujeto a la directiva sobre equipos a presión 97/23/EC | |
| Protección contra explosión | |
| <ul style="list-style-type: none"> • Versión con seguridad intrínseca - Seguridad intrínseca "I" - Identificación - Temp. ambiente adm. - Conexión a circuitos con seguridad intrínseca certificada con valores máximos:: - Inductividad interna efectiva y capacidad en función de la longitud del cable de conexión. | TÜV 03 ATEX 2004X II 1G EEx ia IIC Tv -10 bis +80 °C (14 bis 176 °F) $U_i = 30 V, I_i = 100 mA, P_i = 750 mW$ $L_i = 165 \mu H + 1,5 \mu H/m, C_i = 38,3 nF + 0,25 nF/m$ |

10 Opciones / Repuestos

10.1 Caja de interconexión 7MF1570-8AA

| | |
|---|---------------------------------------|
| Campo de aplicación | para conectar el cable del transmisor |
| Construcción mecánica | |
| Peso | 0,2 kg (0.44 lb) |
| Conexión eléctrica | 2 x 3 veces (28 a 18 AWG) |
| Entrada de cable | 2 x Pg 13,5 |
| Material de la caja | Policarbonato |
| Tubo de compensación para presión atmosférica | |
| Tornillo para cuerda de suspensión | |
| Condiciones de aplicación | |
| Grado de prot. según DIN EN 60 529 | IP66 |

- (1) Taladro de fijación
- (2) Respiradero

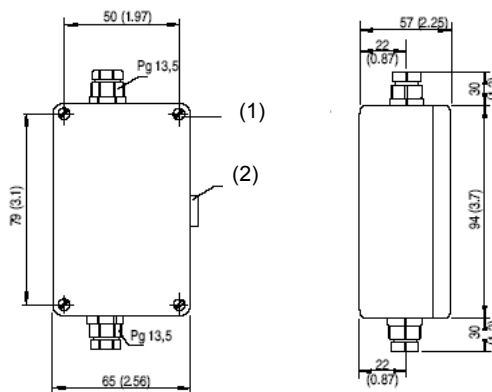
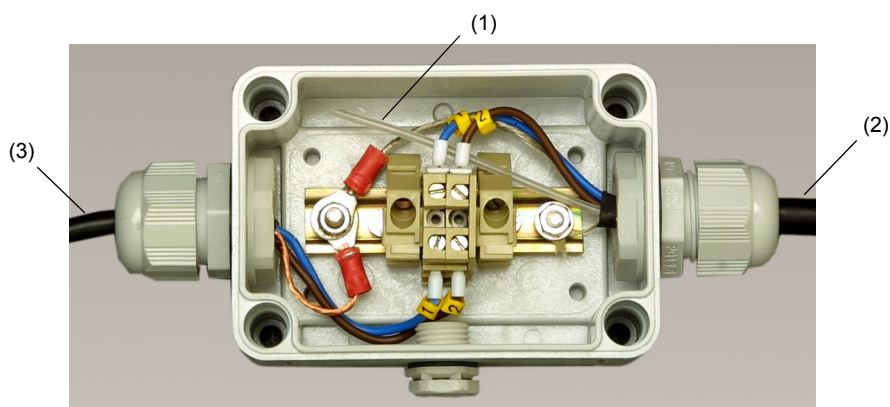


Figura 5 Caja de interconexión, dimensiones en mm (inch)



- (1) Tubo de purga de aire
- (2) Hacia el transmisor 7MF1570
- (3) Hacia el procesamiento de valores medidos

Figura 6 Caja de interconexión, abierto

10.2 Mordaza de fijación 7MF1570-8AB

| | |
|------------------------------|--------------------------|
| Campo de aplicación | para fijar el transmisor |
| Construcción mecánica | |
| Peso | 0,16 kg (0.35 lb) |
| Material | Acero cincado, poliamida |

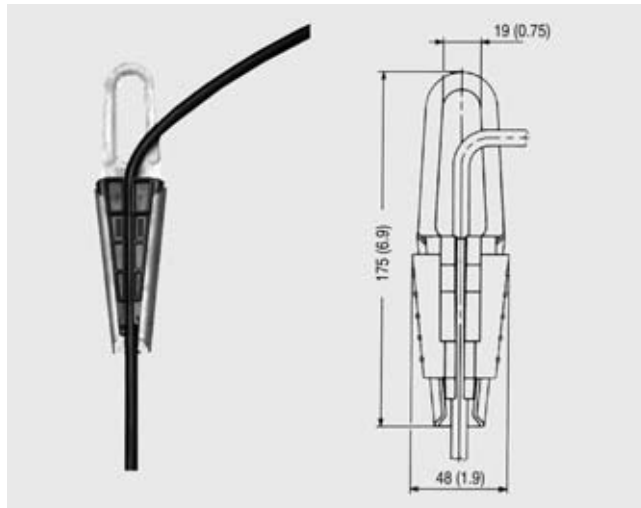


Figura 7 Mordaza de fijación, dimensiones en mm (inch)

10.3 Diseño del punto de medida



Figura 8 Diseño del punto de medida, en principio

Indice

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Avvertenze tecniche di sicurezza

Il presente istruzioni contiene avvertenze tecniche relative alla sicurezza delle persone e alla prevenzione dei danni materiali che vanno assolutamente osservate. Le avvertenze sono contrassegnate da un triangolo e, a seconda del grado di pericolo, rappresentate nel modo seguente:



PERICOLO

significa che la mancata osservanza delle misure precauzionali **causa** la morte, seri infortuni e/o notevoli danni materiali



AVVERTENZA

significa che la mancata osservanza delle misure precauzionali **può causare** la morte, seri infortuni e/o notevoli danni materiali.



PRUDENZA

con un triangolo significa che la mancata osservanza delle misure precauzionali può causare leggeri infortuni.

PRUDENZA

senza triangolo significa che la mancata osservanza delle misure precauzionali può causare danni materiali.

ATTENZIONE

significa che se non vengono osservate le indicazioni può essere provocato un risultato o uno stato non desiderato.



AVVISO

significa che rispettando le indicazioni è possibile ottenere risultati migliori.

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Bereich Automatisierungs- und Antriebstechnik
Geschäftsgebiet Process Instrumentation
D-76181 Karlsruhe

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Indicazioni generali



AVVISO

L'istruzioni, per motivi di intelligibilità, non contiene tutte le informazioni di dettaglio su tutti i tipi del prodotto e non è in grado di tenere in considerazione ogni possibile caso concernente la posa, l'esercizio o la riparazione del prodotto.

Se desiderate ottenere ulteriori informazioni o in caso di particolari problemi non sufficientemente trattati nelle istruzioni potete ottenere le informazioni desiderate rivolgendovi alla filiale Siemens locale o al seguente indirizzo:

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Il contenuto rispecchia lo stato tecnico al momento della stampa. Ci riserviamo il diritto di applicare modifiche tecniche allo scopo di migliorare il prodotto.



AVVERTENZA

Gli apparecchi di tipo a "sicurezza intrinseca" perdono la propria omologazione non appena vengono fatti funzionare in circuiti elettrici che non soddisfano i requisiti stabiliti nel certificato di collaudo del proprio paese.

L'apparecchio può essere fatto funzionare sia con alta pressione che con fluidi aggressivi. Per tale motivo, in caso di uso improprio dell'apparecchio, non è possibile escludere la possibilità di pesanti infortuni e/o notevoli danni materiali.

L'uso regolare e sicuro del presente apparecchio presuppone un trasporto corretto, uno stoccaggio appropriato, una posa ed un montaggio qualificati cosiccome il giusto uso e l'appropriata manutenzione.

L'apparecchio può essere utilizzato esclusivamente per gli scopi prescritti nelle presenti istruzioni d'uso.

Esclusione di responsabilità

Per qualsiasi modifica all'apparecchio, se non specificata esplicitamente nelle istruzioni, risponde l'utilizzatore.

Personale qualificato

sono persone che hanno confidenza con la posa, il montaggio e la messa in servizio del prodotto e che dispongono delle necessarie qualifiche per l'attività svolta, come p. es.:

- Addestramento e istruzione o autorizzazione ad usare e a mantenere apparecchi/sistemi conformemente agli standard della tecnica di sicurezza per circuiti elettrici, alte pressioni e fluidi sia aggressivi che pericolosi.
- In caso di apparecchi con protezione antideflagrante: Addestramento e istruzione o autorizzazione all'esecuzione di interventi su circuiti elettrici per impianti a rischio di deflagrazione.
- Addestramento o istruzione conformemente agli standard della tecnica di sicurezza riguardo alla cura e all'uso di idonei equipaggiamenti di sicurezza.

PRUDENZA

I gruppi costruttivi che possono caricarsi elettrostaticamente possono essere distrutti da tensioni notevolmente minori della soglia di percezione umana. Queste tensioni vengono a formarsi se venite a contatto con un componente o con dei contatti elettrici di un componente senza che vi siate dapprima scaricati elettrostaticamente. Il danno che può essere provocato su di un componente a causa di una sovratensione spesso non può essere subito riconosciuto ma si rende visibile solamente dopo un lungo periodo di esercizio.

Marchio di prodotto

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Le altre sigle di questo istruzioni possono essere marchi, il cui utilizzo da parte di terzi per i loro scopi può violare i diritti dei proprietari.

1 Struttura

Sul lato frontale, il trasmettitore di pressione è provvisto di un sensore piezoresistivo con diaframma di misurazione in acciaio inox.

Il trasmettitore dispone di un circuito elettrico integrato nella custodia in acciaio inox insieme al sensore. Nel cavo di collegamento sono alloggiati un cavo portante e un tubo di sfiato.

Un cappuccio di protezione protegge efficacemente il diaframma di misurazione dagli influssi esterni.

Il sensore, il circuito elettrico e il cavo di collegamento sono alloggiati in una custodia ermetica dalle dimensioni compatte.

Il trasmettitore di pressione è dotato di una compensazione termica per ampie oscillazioni di temperatura.

2 Campo d'impiego

Il trasmettitore di pressione 7MF1570 viene utilizzato per la misurazione del livello idrostatico di fluidi, p. es. in sistemi di approvvigionamento dell'acqua, nelle installazioni navali, nell'industria petrolifera e del gas ecc. Il trasmettitore serve alla misurazione della pressione idrostatica ($p = \rho * g * h$, con: ρ - densità del liquido, g - costante di gravitazione, h - altezza della colonna di fluido).

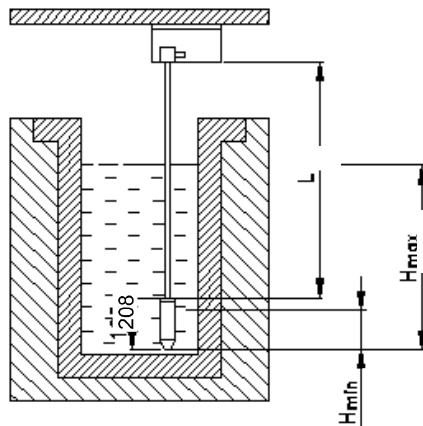


Figura 1 Trasmettitore 7MF1570, misurazione del livello in recipienti aperti

Tenere conto della resistenza chimica del sensore, della custodia, dell'O-ring e del cavo di collegamento alla sostanza da misurare.

3 Funzionamento

La pressione del fluido agisce sulla membrana in acciaio inossidabile che viene dislocata e che trasmette dunque la pressione al ponte a piezoresistenze nel sensore di misurazione. Ogni sensore è compensato per eventuali variazioni della temperatura e funziona in un ampio campo di temperatura.

Il segnale di tensione di uscita del sensore viene trasmesso ad un dispositivo elettronico che lo trasforma in una corrente di uscita 4–20 mA. Sulla membrana del sensore agisce la pressione idrostatica, che è proporzionale alla profondità di immersione. Questa pressione viene comparata alla pressione atmosferica che agisce sull'altro lato del sensore attraverso il tubo di sfiato situato nel cavo di collegamento. La schermatura del cavo è collegata all'alloggiamento.

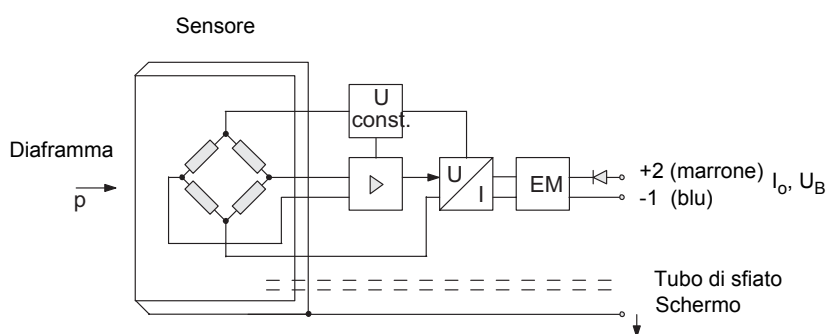


Figura 2 Trasmettitore 7MF1570, schema di collegamento

Il trasduttore di pressione viene alimentato da una fonte di corrente continua 10–36 V DC. I diodi di protezione all'entrata proteggono da inversione di polarità o da alta tensione. Il trasmettitore soddisfa le direttive DIN EN 61 326 e NAMUR NE 21 relative alla compatibilità elettromagnetica.

4 Installazione

Il trasmettitore 7MF1570 viene montato appendendolo ad un cavo a testa in giù. In caso di fluidi in movimento il trasmettitore deve essere fissato saldamente, al fine di evitare errori di misurazione. Ciò può avvenire mediante un tubo di conduzione o un peso supplementare applicato al trasmettitore (forza di trazione massima al cavo portante del cavo di collegamento 300 N).

In linea di massima, il cavo deve essere fissato con la staffa di fissaggio 7MF1570-8AB fornita in dotazione al di sopra della custodia e deve inoltre essere collegato con la cassetta di collegamento 7MF1570-8AA, anch'essa fornita in dotazione. La cassetta di collegamento deve essere montata in prossimità del punto di misura in un luogo idoneo al suo grado di protezione (IP66).

Bisogna fare attenzione che le aperture di ingresso sulla cappa di protezione del trasmettitore non si sporchino al fine di permetterne il regolare funzionamento.



NOTA

Il fluido non deve congelare.

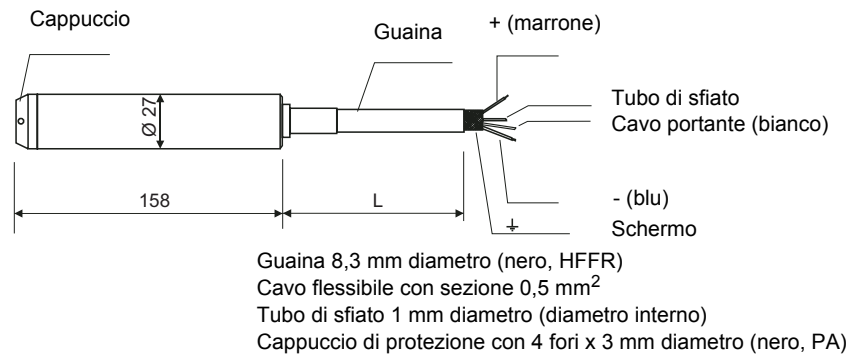


Figura 3 Trasmettitore 7MF1570, dimensioni

5 Cavi di collegamento

Il trasmettitore 7MF1570 per la misurazione di livello (grado di protezione IP68 secondo DIN EN 60 529) è collegato alla cassetta di collegamento 7MF1570-8AA (IP54). Il cavo del trasmettitore viene collegato ai morsetti 1(-), 2(+) e alla terra (figura 3). Il cavo portante viene inserito nell'elemento di fissaggio fra le due viti. Il tubo di sfiato deve essere collegato all'atmosfera contenuta all'interno della cassetta.

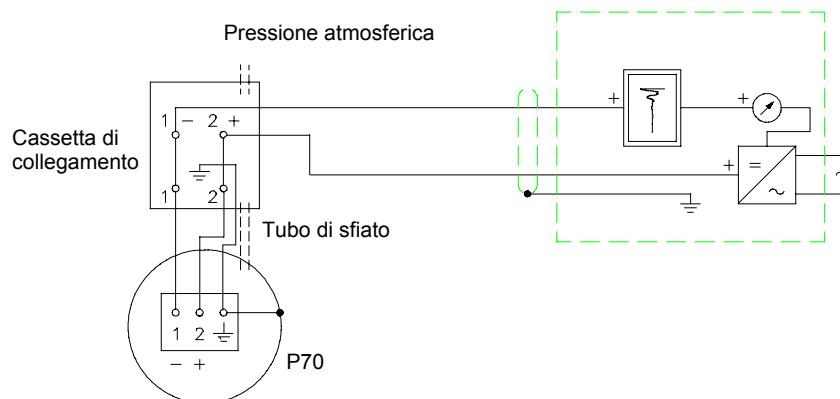


Figura 4 Trasmettitore 7MF1570, schemati collegamento

La tensione di alimentazione del trasmettitore deve essere compresa fra 10 e 36 V DC. Il valore di resistenza per il carico maggiore dipende dalla tensione U_B . Esso viene determinato mediante la seguente equazione:

$$R_{\max} = \frac{U_B - 10 \text{ V}}{20 \text{ mA}} \text{ (kOhm)}$$

6 Calibrazione

Il trasmettitore è stato calibrato sul campo di misurazione presso lo stabilimento di produzione e non può essere ricalibrato.

7 Manutenzione

Il trasmettitore non ha bisogno di manutenzione.

Durante l'uso dell'apparecchio bisogna osservare quanto segue:

- La pressione massima ammessa p_{max} del trasmettitore non deve essere superata.
- La temperatura del fluido in contatto con il trasmettitore non deve superare 80 °C.
- Evitare la formazione di ghiaccio all'entrata di processo del trasmettitore in quanto così facendo la membrana di misurazione potrebbe venire danneggiata.
- Evitare che l'entrata del sensore si sporchi.
- Evitare ogni impedimento del tubo di sfiato all'interno del cavo (in quanto influirebbe sulla precisione di misurazione).

8 Dati di ordinazione

Trasmettitore di pressione SITRANS P serie MPS (sonda a immersione per pozzi)

Tecnica de due conduttori

Nota: La cassetta di collegamento e la staffa di fissaggio sono comprese nella fornitura.

Campo di misura Lungh. cavo L

| | | |
|-----|-----------------------|-------|
| 0 a | 2 mH ₂ O | 10 m |
| 0 a | 4 mH ₂ O | 10 m |
| 0 a | 6 mH ₂ O | 25 m |
| 0 a | 10 mH ₂ O | 25 m |
| 0 a | 20 mH ₂ O | 25 m |
| 0 a | 6 ftH ₂ O | 32 ft |
| 0 a | 12 ftH ₂ O | 32 ft |
| 0 a | 18 ftH ₂ O | 82 ft |
| 0 a | 30 ftH ₂ O | 82 ft |
| 0 a | 60 ftH ₂ O | 82 ft |

Campo di misura speciale/lunghezza cavo speciale ¹⁾ (Indicare il campo di misura e la lunghezza cavo con testo chiaro)

7MF1570-1 A0

C
D
E
F
G
K
L
M
N
P
X

Protezione da esplosione

- | | |
|---|---|
| • senza protezione da esplosione | 1 |
| • con protezione da esplosione, variante a "sicurezza intrinseca" EEx ia IIC T4 | 2 |

Accessori (come parti di ricambio)

Cassetta di collegamento 7MF1570-8AA
per l'allacciamento del cavo del trasmettitore di pressione

Staffa di fissaggio 7MF1570-8AB
per il fissaggio del trasmettitore di pressione

¹⁾ Sono possibili campi di misura tra 0 ... 1 mH₂O (0 ... 3 ftH₂O) e 0 ... 100 mH₂O (0 ... 200 ftH₂O) e lunghezze cavo speciali fino a 200 m (600ft). Per le vecchie versioni è possibile una lunghezza max. cavo speciale di 50 m (150 ft)

9 Dati tecnici

| | |
|---|--|
| Ingresso | |
| Grandezza misurata | Pression |
| Campo di misura | Limite di sovraccarico |
| • 0 a 2 mH ₂ O | 1,4 bar (20.3 psi) (= 14 mH ₂ O/42 ftH ₂ O) |
| • 0 a 4 mH ₂ O | 1,4 bar (20.3 psi) (= 14 mH ₂ O/42 ftH ₂ O) |
| • 0 a 6 mH ₂ O | 3,0 bar (43.5 psi) (= 30 mH ₂ O/90 ftH ₂ O) |
| • 0 a 10 mH ₂ O | 3,0 bar (43.5 psi) (= 30 mH ₂ O/90 ftH ₂ O) |
| • 0 a 20 mH ₂ O | 6,0 bar (87.0 psi) (= 60 mH ₂ O/180 ftH ₂ O) |
| Uscita | |
| Segnale di uscita | 4 a 20 mA |
| Precisione di misurazione | |
| Deviazione della misurazione (incl. caratteristica non lineare, isteresi e ripetibilità, a 25 °C (77 °F)) | 0,2 % del valore limite del campo di misura |
| Influsso della temperatura esterna | |
| • Zero e fine scala (span) | |
| - compresi tra 1 e 6 mH ₂ O (compresi tra 3 e 18 ftH ₂ O) | 0,45 %/10 K (0,45 %/18 °F) del valore limite del campo di misura |
| - ≥ 6 mH ₂ O (≥ 18 ftH ₂ O) | 0,3 %/10 K (0,3 %/18 °F) del valore limite del campo di misura |
| Stabilità a lungo termine | |
| • Zero e fine scala (span) | |
| - compresi tra 1 e 6 mH ₂ O (compresi tra 3 e 18 ftH ₂ O) | 0,25 % del valore limite del campo di misura/anno |
| - ≥ 6 mH ₂ O (≥ 18 ftH ₂ O) | 0,2 % del valore limite del campo di misura/anno |
| Vibrazioni (10 a 500 Hz in ogni direzione degli assi) | 0,05 %/g del valore limite del campo di misura |
| Influsso dell'alimentazione esterna | 0,01 %/V del valore limite del campo di misura |
| Condizioni di impiego | |
| Condizioni ambientali | |
| • Temperatura di esercizio | -10 a +80 °C (+14 a +176 °F) |
| • Temperatur di magazzino | -40 a +100 °C (-40 a +212 °F) |
| Grado di protezione sec. DIN EN 60 529 | IP68 |
| Compatibilità elettromagnetica | |
| • Resistenza ai disturbi | sec. DIN EN 61 326, NAMUR NE 21 |
| Struttura | |
| Peso | 0,4 kg (0.88 lb) |
| • Trasmettitore | 0,08 kg/m (0.054 lb/ft) |
| • Cavo | |
| Collegamento elettrico | Cavo con due conduttori con schermo e tubo di sfiato, cavo, portante (max. 300 N (67.7 lbf)) |
| Materiale | |
| • Sensore | Acciaio inox, n. mat. 1.4571/316Ti |
| • Custodia | Acciaio inox, n. mat. 1.4571/316Ti |
| • O-Ring | Viton |
| • Cavo di collegamento | Guaina PE/HFFR (non alogeno) |
| Alimentazione esterna | |
| Tensione dei morsetti sul trasmettitore U_B | DC 10 a 36 V |
| Protezione dall'inversione dei poli | sì |
| Protezione dalla sovratensione | sì |
| Carico | $R_B = (U_B - 10 \text{ V}) / 0,02 \text{ A in } \Omega$ |
| Certificati e omologazioni | |
| L'apparecchio non è soggetto alle norme per i trasmettitori di pressione 97/23/EC | |
| Protezione da esplosione | |
| • Protezione antideflagrante | |
| - Sicurezza intrinseca "i" | TÜV 03 ATEX 2004X |
| - Contrassegno | II 1G EEx ia IIC Tv |
| - Temperatura ambiente ammessa | -10 a +80 °C (14 a 176 °F) |
| - Collegamento su circuiti a sicurezza intrinseca certificati con i valori massimi: | $U_i = 30 \text{ V}, I_i = 100 \text{ mA}, P_i = 750 \text{ mW}$ |
| - Induttività interna attiva e capacità interna attiva secondo la lunghezza del cavo di collegamento | $L_i = 165 \mu\text{H} + 1,5 \mu\text{H/m}, C_i = 38,3 \text{ nF} + 0,25 \text{ nF/m}$ |

10 Opzioni / Parti di ricambio

10.1 Cassetta di collegamento 7MF1570-8AA

| | |
|---|--|
| Campo d'impiego | collegamento del cavo del trasmettitore di pressione |
| Struttura | |
| Peso | 0,2 kg (0.44 lb) |
| Collegamento elettrico | 2 x 3 (28 a 18 AWG) |
| Ingresso cavi | 2 x Pg 13,5 |
| Materiale della custodia | policarbonato |
| Tubo di sfiato per la pressione atmosferica | |
| Vite del cavo portante | |
| Condizioni di impiego | |
| Grado di protezione sec. DIN EN 60 529 | IP66 |

- (1) Foro di fissaggio
- (2) Apertura di sfiato

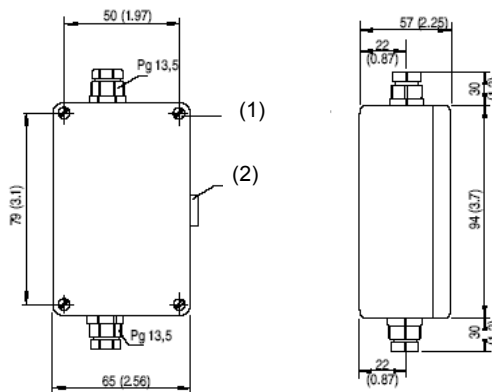
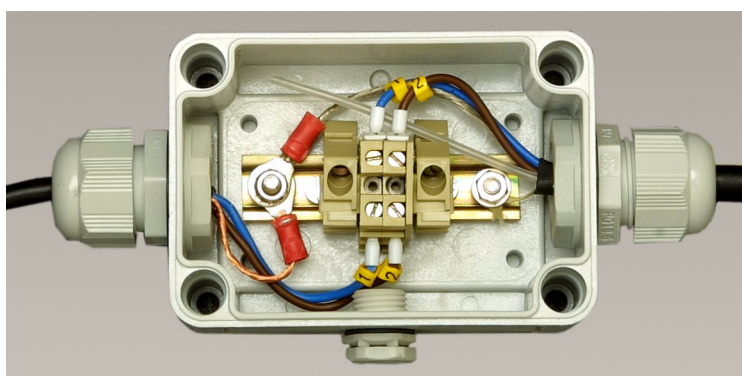


Figura 5 Cassetta di collegamento 7MF1570-8AA, dimensioni (inch)



- (1) Tubo di sfiato
- (2) Al trasmettitore di pression 7MF1570
- (3) All_elaborazione del valore misurato

Figura 6 Staffa di fissaggio 7MF1570-8AA, aperta

10.2 Staffa di fissaggio 7MF1570-8AB

| | |
|------------------------|--|
| Campo d'impiego | fissaggio del trasmettitore di pressione |
| Struttura | |
| Peso | 0,16 kg (0.35 lb) |
| Materiale | acciaio zincato, poliammide |

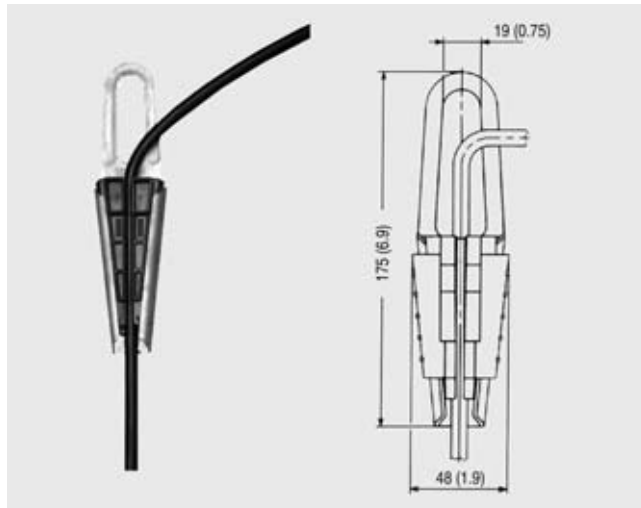


Figura 7 Staffa di fissaggio 7MF1570-8AB, dimensioni in mm (inch)

10.3 Disegno del punto di misura



Figura 8 Disegno del punto di misura

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Notas de segurança técnica

Este manual contém notas que têm de ser respeitadas para a sua segurança pessoal, bem como para a prevenção de danos materiais. As notas estão realçadas através de um triângulo de sinalização e, de acordo com o seu grau de perigo, apresentadas do seguinte modo.



PERIGO

significa que **irão** ocorrer lesões corporais graves, morte ou danos materiais elevados se as respectivas medidas preventivas não forem tomadas.



AVISO

significa que **poderão** ocorrer lesões corporais graves, morte ou danos materiais elevados se as respectivas medidas preventivas não forem tomadas.



CUIDADO

com um triângulo de sinalização significa que podem ocorrer lesões corporais ligeiras se as respectivas medidas preventivas não forem tomadas.

CUIDADO

sem triângulo de sinalização significa que podem ocorrer danos materiais se as respectivas medidas preventivas não forem tomadas.

ATENÇÃO

significa que pode ocorrer um resultado ou um estado indesejado se a respectiva nota não for respeitada.



NOTA

Significa uma nota relativa a uma eventual vantagem se a recomendação for cumprida.

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Siemens AG
Bereich Automatisierungs- und Antriebstechnik
Geschäftsgebiet Process Instrumentation
D-76181 Karlsruhe

Exclusão de responsabilidade

Verificamos o conteúdo do manual em relação à conformidade com o hardware e software descritos. No entanto, não podemos excluir desvios, pelo que não podemos garantir a conformidade completa. As informações deste manual são verificadas periodicamente, estando as correções necessárias contidas nas edições seguintes. Agradecemos sugestões de melhoramento.

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Reservam-se alterações técnicas

Notas gerais



NOTA

Estimado cliente

Por motivos de clareza, o manual não contém todas as informações detalhadas acerca de todos os tipos do produto e também não consegue referir todos os casos possíveis de montagem, funcionamento ou manutenção.

Se pretender obter informações adicionais ou se surgirem problemas especiais que não tenham sido mencionados exaustivamente no manual, poderá contactar a sucursal local da Siemens para mais informações.

Além disso, alertamos para o facto do índice do manual não fazer parte de um compromisso, confirmação ou relação judicial anterior ou existente ou de alterar o próprio. Todas as obrigações da Siemens AG formam-se a partir do respectivo contrato de compra, o qual contém as disposições completas e válidas sobre a garantia. Estas prescrições de garantia contratuais não são desenvolvidas nem limitadas através das versões do manual.

O conteúdo espelha o estado técnico para a impressão. Reservam-se alterações técnicas no sentido do desenvolvimento.



AVISO

Os aparelhos do tipo de protecção antideflagrante "intrinsecamente seguro" perdem a sua homologação assim que são utilizados em circuitos eléctricos que não correspondem ao certificado de prova válido para o seu país.

O aparelho pode ser operado com elevada pressão, bem como com produtos agressivos. Por isso, em caso de manuseio inadequado deste aparelho, não podemos excluir a possibilidade de ferimentos corporais graves e/ou danos materiais elevados.

O funcionamento impecável e seguro do produto pressupõe um transporte, armazenamento, instalação e montagem adequados, bem como uma operação e manutenção cuidadosa.

O aparelho só pode ser utilizado para os fins indicados neste manual de instruções.

Exclusão de responsabilidade

Se não forem referidas exclusivamente neste manual, todas as alterações no aparelho são da responsabilidade do utilizador.

Técnicos qualificados

são pessoas que estão familiarizadas com a instalação, montagem, colocação em funcionamento e operação do produto e que possuem qualificações correspondentes à sua tarefa, como p.ex.:

- Formação, instrução ou autorização de operar e conservar aparelhos/sistemas de acordo com os padrões da segurança técnica para circuitos eléctricos, pressões elevadas e produtos agressivos ou perigosos.
- Nos aparelhos com protecção contra a explosão: Formação, instrução ou autorização para executar trabalhos nos circuitos eléctricos das unidades com risco de explosão.
- Formação ou instrução de acordo com os padrões da segurança técnica para a manutenção e utilização de equipamentos de segurança adequados.

CUIDADO

Os grupos construtivos em perigo devido à carga electrostática podem ser destruídos através de tensões que estão muito abaixo do limite de percepção das pessoas. Essas tensões começam a ocorrer assim que um componente ou as conexões eléctricas de um grupo construtivo são tocadas sem estarem descarregadas electrostaticamente. Os danos que ocorrem num grupo construtivo devido a uma sobretensão são muitas vezes irreconhecíveis imediatamente e só são detectados após um período de funcionamento mais prolongado.

Marcas

SIMATIC®, SIPART®, SIREC®, SITRANS® são marcas registadas da Siemens AG.

As restantes designações neste manual podem ser marcas que podem ferir os direitos de propriedade através da utilização de terceiros para os seus próprios fins.

1 Estrutura

O transdutor de pressão possui um sensor piezo-resistivo montado à face com membrana de medição em aço inoxidável.

O transdutor de pressão está equipado com um sistema electrónico que, em conjunto com o sensor, está montado numa caixa em aço inoxidável. O cabo de conexão também possui um cabo de suspensão e um tubo de evacuação do ar.

A membrana de medição é protegida contra as influências exteriores através de uma tampa de protecção.

O sensor, o sistema electrónico e o cabo de conexão estão blindados hermeticamente numa caixa com reduzidas dimensões.

O transdutor de pressão está concebido para um vasto âmbito de temperatura.

2 Âmbito de utilização

O transdutor de pressão 7MF1570 é utilizado para a medição do nível hidrostático, p.ex. no abastecimento de água, nas instalações em barcos, na indústria do óleo e gás, etc. O transdutor de pressão destina-se à medição da pressão hidrostática ($p = \rho * g * h$, com: ρ – densidade do líquido, g – aceleração devido à gravidade, h – altura da coluna de líquido).

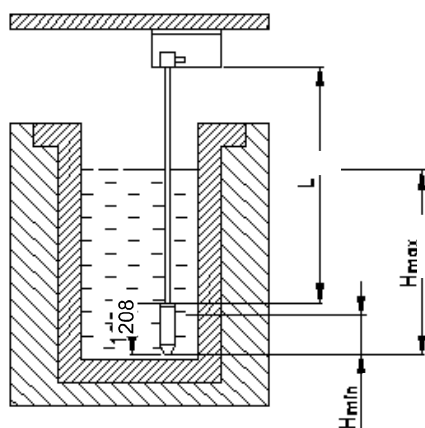


Figura 1 Transdutor de pressão 7MF1570, medição do nível em recipientes abertos

É necessário respeitar a resistência química do sensor, da caixa, do anel O e do cabo de conexão em relação ao produto de medição.

3 Funcionamento

A pressão do produto produz um efeito sobre a membrana em aço inoxidável a qual é activada e, deste modo, transmite a pressão à ponte de resistência piezo existente no sensor de medição. Cada sensor está compensado para as alterações da temperatura e funciona num vasto âmbito de temperatura.

O sinal de saída da tensão do sensor é conduzido até ao sistema electrónico que transforma o mesmo numa corrente de saída de 4 a 20 mA. Sobre a membrana do sensor é exercida uma pressão hidrostática que é proporcional à profundidade de imersão. Esta pressão é comparada com a pressão atmosférica que exerce uma pressão no outro lado do sensor através do tubo de evacuação de ar existente no cabo de conexão. A blindagem do cabo está conectada à caixa.

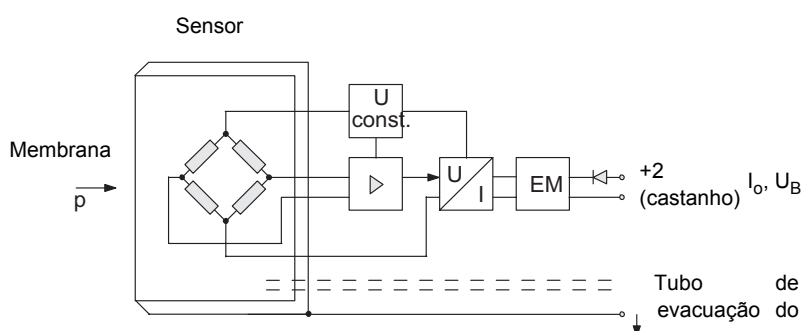


Figura 2 Transdutor de pressão 7MF1570, esquema em bloco

O transdutor de pressão é alimentado por uma fonte de corrente contínua de 10 a 36 V DC. Os diodos de protecção na entrada protegem contra uma polaridade errada ou excesso de tensão. O transdutor de pressão cumpre as directivas DIN EN 61 326 e NAMUR NE 21 em relação à compatibilidade electromagnética (CEM).

4 Instalação

O transdutor de pressão 7MF1570 é montado num cabo em suspensão. Em caso de produtos em movimento, o transdutor de pressão tem de ser fixado para evitar medições erradas. Isso pode ser alcançado através de um tubo de guia ou de um peso adicional no transdutor de pressão (força de tracção máx. no cabo de suspensão do cabo de conexão 300 N).

Por norma, o cabo é preso por cima do recipiente com o olhal para suspensão de cabo 7MF1570-8AB fornecido e conectado através da caixa de derivação 7MF1570-8AA também fornecida. A caixa de derivação deve ser montada num local de acordo com o seu tipo de protecção (IP66) na proximidade do local de medição.

Deve-se ter atenção para que as aberturas de entrada na tampa de protecção do transdutor de pressão não fiquem sujas de modo a garantir um funcionamento impecável.



NOTA

O produto a ser medido não pode congelar.

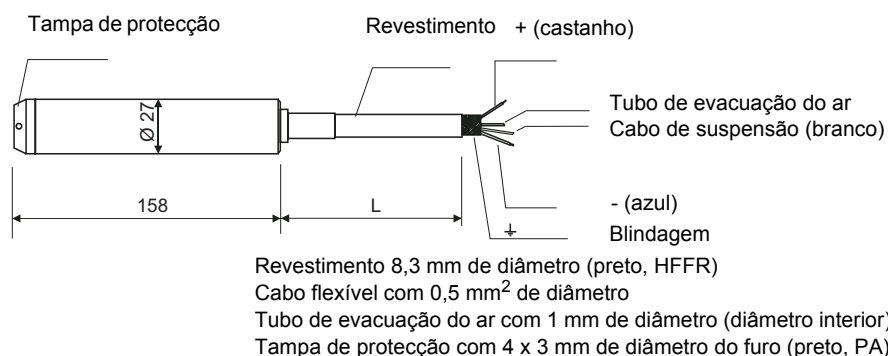


Figura 3 Transdutor de pressão 7MF1570, dimensões

5 Linhas de conexão

O transdutor de pressão 7MF1570 para a medição do nível (tipo de protecção IP68 conforme DIN EN 60 529) está conectado à caixa de derivação 7MF1570-8AA (IP54). O cabo do transdutor de pressão é conectado aos bornes 1(-), 2(+) e à terra (Figura 4). O cabo de suspensão é fixado na peça de fixação entre os dois parafusos. O tubo de evacuação do ar tem de estar em contacto com a atmosfera dentro da caixa.

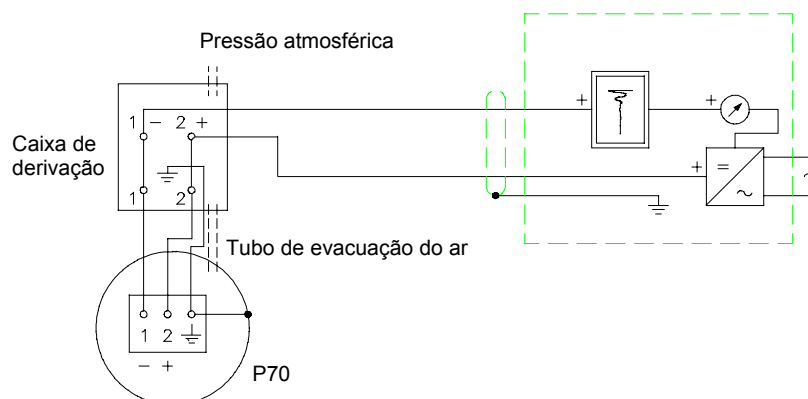


Figura 4 Transdutor de pressão 7MF1570, esquema de ligações

A tensão de alimentação do transdutor de pressão pode situar-se num âmbito de 10 a 36 V DC. O valor de resistência para a maior carga depende da tensão U_B . Ele é determinado de acordo com a seguinte equação:

$$R_{\text{máx.}} = \frac{U_B - 10 \text{ V}}{20 \text{ mA}} \text{ (kOhm)}$$

6 Calibração

O transdutor de pressão foi calibrado na fábrica para o âmbito de medição e não pode ser recalibrado.

7 Manutenção

O transdutor de pressão não necessita de manutenção.

Ao utilizar o aparelho, deve-se ter especialmente atenção ao seguinte:

- A maior pressão permitida $p_{m\acute{a}x.}$ do transdutor de pressão não pode ser excedida.
- A temperatura do produto em contacto com o transdutor de pressão não pode exceder os 80°C.
- Evitar a formação de gelo na entrada do processo do sensor, pois, caso contrário, a membrana de medição pode ser danificada.
- Evitar sujidade na entrada do sensor.
- Evitar que o tubo de evacuação do ar seja obstruído no cabo da sonda (influência sobre a precisão de medição).

8 Dados de encomenda

Transdutor de pressão SITRANS P para pressão, série MPS (sonda para poços)

Tecnologia de dois condutores

Nota: Caixa de derivação e olhal para suspensão de cabo incluídos no fornecimento.

Âmbito de medição Comprimento do cabo C

| | | |
|-----|-----------------------|-------|
| 0 a | 2 mH ₂ O | 10 m |
| 0 a | 4 mH ₂ O | 10 m |
| 0 a | 6 mH ₂ O | 25 m |
| 0 a | 10 mH ₂ O | 25 m |
| 0 a | 20 mH ₂ O | 25 m |
| 0 a | 6 ftH ₂ O | 32 ft |
| 0 a | 12 ftH ₂ O | 32 ft |
| 0 a | 18 ftH ₂ O | 82 ft |
| 0 a | 30 ftH ₂ O | 82 ft |
| 0 a | 60 ftH ₂ O | 82 ft |

Âmbito de medição da sonda/comprimento do cabo da sonda¹⁾
(indicar o âmbito de medição e comprimento do cabo em texto corrido)

| | |
|-----------|----|
| 7MF1570-1 | A0 |
| | ↑ |
| | C |
| | D |
| | E |
| | F |
| | G |
| | K |
| | L |
| | M |
| | N |
| | P |
| | X |

Protecção contra explosão

- sem protecção contra a explosão
- com protecção contra a explosão tipo de protecção "intrinsecamente seguro" EEx ia IIC T4

1
2

Acessórios (como peça sobressalente)

Caixa de derivação

para a conexão do cabo do transdutor de pressão

7MF1570-8AA

Olhal para suspensão de cabo

para fixação do transdutor de pressão

7MF1570-8AB

¹⁾ Possibilidade de âmbitos de medição da sonda entre 0 ... 1 mH₂O (0 ... 3 ftH₂O) e 0 ... 100 mH₂O (0 ... 200 ftH₂O) e comprimento do cabo da sonda até 200 m (600 ft). Em caso de versões Ex, é possível um comprimento máx. do cabo da sonda de 50 m (150 ft).

9 Dados técnicos

| | |
|---|--|
| Entrada | |
| Valor de medição | Pressão |
| Âmbito de medição | Limite de sobrecarga |
| <ul style="list-style-type: none"> • 0 a 2 mH₂O • 0 a 4 mH₂O • 0 a 6 mH₂O • 0 a 10 mH₂O • 0 a 20 mH₂O | 1,4 bar (20.3 psi) (= 14 mH ₂ O/42 ftH ₂ O) 1,4 bar (20.3 psi) (= 14 mH ₂ O/42 ftH ₂ O) 3,0 bar (43.5 psi) (= 30 mH ₂ O/90 ftH ₂ O) 3,0 bar (43.5 psi) (= 30 mH ₂ O/90 ftH ₂ O) 6,0 bar (87.0 psi) (= 60 mH ₂ O/180 ftH ₂ O) |
| Saída | |
| Sinal de saída | 4 a 20 mA |
| Precisão de medição | |
| Desvio da medição (incluindo a não linearidade, histerese e repetição, a 25 °C (77 °F)) | 0,2 % do valor final do âmbito de medição |
| Influência da temperatura ambiente | |
| <ul style="list-style-type: none"> • Ponto zero e margem <ul style="list-style-type: none"> - entre 1 e 6 mH₂O (entre 3 e 18 ftH₂O) - ≥ 6 mH₂O (≥ 18 ftH₂O) | 0,45 %/10 K (0,45 %/18 °F) do valor final do âmbito de medição 0,3 %/10 K (0,3 %/18 °F) do valor final do âmbito de medição |
| Estabilidade a longo prazo | |
| <ul style="list-style-type: none"> • Ponto zero e margem <ul style="list-style-type: none"> - entre 1 e 6 mH₂O (entre 3 e 18 ftH₂O) - ≥ 6 mH₂O (≥ 18 ftH₂O) | 0,25 % do valor final do âmbito de medição/ano 0,2 % do valor final do âmbito de medição/ano |
| Efeito de vibração (10 a 500 Hz em todas as direcções de eixo) | 0,05 %/g do valor final do âmbito de medição |
| Influência da energia auxiliar | 0,01 %/V do valor final do âmbito de medição |
| Condições de utilização | |
| Condições ambientais | |
| <ul style="list-style-type: none"> • Temperatura de serviço • Temperatura de armazenagem | -10 a +80 °C (+14 a +176 °F) -40 a +100 °C (-40 a +212 °F) |
| Tipo de protecção conforme DIN EN 60 529 | IP68 |
| Compatibilidade electromagnética | |
| <ul style="list-style-type: none"> • Resistência a interferências | conforme a DIN EN 61 326, NAMUR NE 21 |
| Aspectos construtivos | |
| Peso | |
| <ul style="list-style-type: none"> • Transdutor de pressão • Cabo | 0,4 kg (0.88 lb) 0,08 kg/m (0.054 lb/ft) |
| Conexão eléctrica | |
| | Cabo com 2 condutores com blindagem e tubo de evacuação do ar, cabo de suspensão (máx. 300 N (67.7 lbf)) |
| Material | |
| <ul style="list-style-type: none"> • Sensor • Caixa • Anel O • Cabo de conexão | Aço inoxidável, n.º mat. 1.4571/316Ti Aço inoxidável, n.º mat. 1.4571/316Ti Viton Revestimento PE/HFFR (não halogénico) |
| Energia auxiliar | |
| Tensão do borne no transdutor de pressão U_B | DC 10 a 36 V |
| Protecção contra troca dos pólos | sim |
| Protecção contra sobretensão | sim |
| Carga | $R_B = (U_B - 10 \text{ V}) / 0,02 \text{ A em } \Omega$ |
| Certificados e homologações | |
| O aparelho não está sujeito à directiva sobre equipamentos sob pressão 97/23/CE | |
| Protecção contra explosão | |
| <ul style="list-style-type: none"> • Versão intrinsecamente segura <ul style="list-style-type: none"> - Intrinsecamente segura "i" - Identificação - Temperatura ambiente permitida - Conexão a circuitos eléctricos intrinsecamente seguros e certificados com os valores máximos: - Indutância e capacidade interior efectiva em dependência do comprimento do cabo de conexão | TÜV 03 ATEX 2004X II 1G EEx ia IIC T _v -10 a +80 °C (14 a 176 °F) $U_i = 30 \text{ V}, I_i = 100 \text{ mA}, P_i = 750 \text{ mW}$ $L_i = 165 \mu\text{H} + 1,5 \mu\text{H/m}, C_i = 38,3 \text{ nF} + 0,25 \text{ nF/m}$ |

10 Opções/peças sobressalentes

10.1 Caixa de derivação 7MF1570-8AA

| | |
|--|---|
| Âmbito de utilização | para a conexão do cabo do transdutor de pressão |
| Aspectos construtivos | |
| Peso | 0,2 kg (0.44 lb) |
| Conexão eléctrica | 2 x 3 vezes (28 a 18 AWG) |
| Introdução do cabo | 2 x Pg 13,5 |
| Material da caixa | policarbonato |
| Tudo de evacuação do ar para pressão atmosférica | |
| Parafuso para cabo de suspensão | |
| Condições de utilização | |
| Tipo de protecção conforme DIN EN 60 529 | IP66 |

- (1) Furo de fixação
(2) Válvula de evacuação do ar

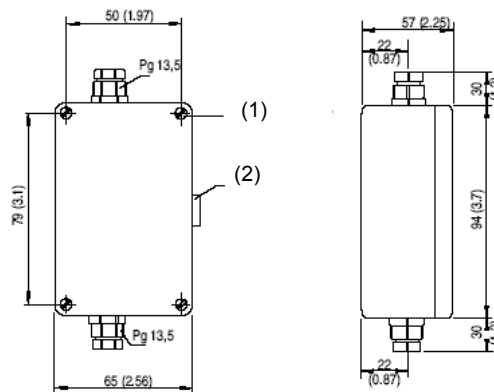
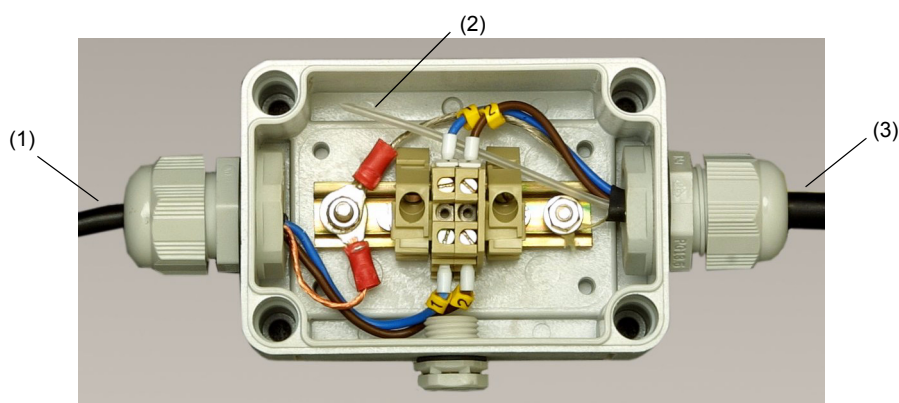


Figura 5 Caixa de derivação, medidas em mm (polegadas)



- 1) Para o processamento do valor de medição
2) Tubo de evacuação do ar
3) Para o transdutor de pressão 7MF1570

Figura 6 Caixa de derivação, aberta

10.2 Olhal para suspensão de cabo 7MF1570-8AB

| | |
|------------------------------|---------------------------------------|
| Âmbito de utilização | para fixação do transdutor de pressão |
| Aspectos construtivos | |
| Peso | 0,16 kg (0.35 lb) |
| Material | aço galvanizado, poliamida |

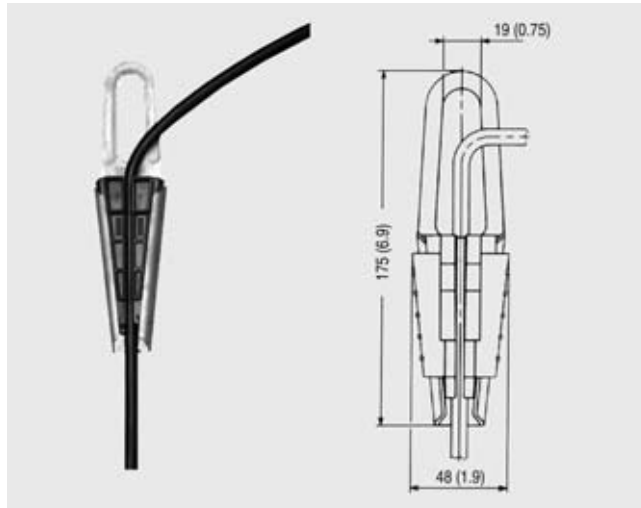


Figura 7 Olhal para suspensão de cabo, medidas em mm (polegadas)

10.3 Figura do local de medição



Figura 8 Figura do local de medição, princípio

**Zertifikate und Zulassungen/Certificates and approvals/
Certificats et homologations/Certificados y aprobaciones/
Certificati e omologazioni**

(in German)

SIEMENS

EG - KONFORMITÄTSERKLÄRUNG

Nr. 7MF1570-03/040

Hersteller: **Siemens d.d.
Automatisierungs-, Meß- und Regeltechnik**

Anschrift: **Heinzelova 70a
10000 Zagreb
Kroatien**

Produktbezeichnung: **Druckmeßumformer SITRANS P Serie MPS
7MF 1570 – 1xA0x**

Die Prüfung des bezeichneten Produkts zeigt die Übereinstimmung mit folgenden harmonisierten Europäischen Normen:

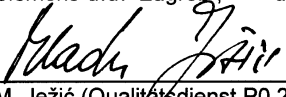
| Referenznummer | Ausgabedatum |
|--------------------|--------------|
| EN 61326 | 1998 |
| NAMUR NE 21 | 1998 |
| | |
| | |

also das bezeichnete Produkt stimmt mit den Vorschriften Europäischer Richtlinien für Elektromagnetische Verträglichkeit 89/336/EWG.


Anbringung der CE- Kennzeichnung:

06/2001

Siemens d.d. Zagreb, den 28.02.2003


M. Ježić (Qualitätsdienst P0.2)

Siemens d.d.
Zagreb, Heinzelova 70 a © 06.09


Lj. Cvitaš (Produktionsleiter)



(1) **EG-Baumusterprüfbescheinigung**

- (2) Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen - **Richtlinie 94/9/EG**
- (3) EG Baumusterprüfbescheinigungsnummer



TÜV 03 ATEX 2004 X

- (4) Gerät: Explosionsgeschützter Messumformer für Druck Sitrans P, Serie MPS
Typ 7MF 1570-1*A02
- (5) Hersteller: Siemens d.d.
- (6) Anschrift: Heinzlova 70a
HR - 10000 Zagreb
- (7) Die Bauart dieses Gerätes sowie die verschiedenen zulässigen Ausführungen sind in der Anlage zu dieser Baumusterprüfbescheinigung festgelegt.
- (8) Die TÜV NORD CERT GmbH & Co. KG, TÜV CERT-Zertifizierungsstelle, bescheinigt als benannte Stelle Nr. 0032 nach Artikel 9 der Richtlinie des Rates der Europäischen Gemeinschaften vom 23. März 1994 (94/9/EG) die Erfüllung der grundlegenden Sicherheits- und Gesundheitsanforderungen für die Konzeption und den Bau von Geräten und Schutzsystemen zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen gemäß Anhang II der Richtlinie.
- Die Ergebnisse der Prüfung sind in dem vertraulichen Prüfbericht Nr. 03 YEX 550272 vom 16.01.2003 festgelegt.
- (9) Die grundlegenden Sicherheits- und Gesundheitsanforderungen werden erfüllt durch Übereinstimmung mit
- EN 50 014:1997 EN 50 020:1994 EN 50 284:1999**
- (10) Falls das Zeichen „X“ hinter der Bescheinigungsnummer steht, wird auf besondere Bedingungen für die sichere Anwendung des Gerätes in der Anlage zu dieser Bescheinigung hingewiesen.
- (11) Diese EG-Baumusterprüfbescheinigung bezieht sich nur auf Konzeption und Prüfung des festgelegten Gerätes gemäß Richtlinie 94/9/EG. Weitere Anforderungen dieser Richtlinie gelten für die Herstellung und das Inverkehrbringen dieses Gerätes. Diese Anforderungen werden nicht durch diese Bescheinigung abgedeckt.
- (12) Die Kennzeichnung des Gerätes muß die folgenden Angaben enthalten:

II 1 G EEx ia IIC T4

TÜV NORD CERT GmbH & Co. KG
TÜV CERT-Zertifizierungsstelle
Am TÜV 1
D-30519 Hannover
Tel.: 0511 986-1470
Fax: 0511 986-2555

Der Leiter



Hannover, 16.01.2003

TÜV CERT A4 07.01 10.000 L6

Diese EG-Baumusterprüfbescheinigung darf nur unverändert weiterverbreitet werden.
Auszüge oder Änderungen bedürfen der Genehmigung der TÜV NORD CERT GmbH & Co. KG



(13) **ANLAGE**

(14) **EG-Baumusterprüfbescheinigung Nr. TÜV 03 ATEX 2004 X**

(15) Beschreibung des Gerätes

Der Druckmessumformer Sitrans P, Serie MPS, Typ 7MF 1570-1*A02 in 2-Leiter-Technik dient der Füllstandsmessung von Flüssigkeiten. Der hydrostatischen Druck einer Flüssigkeitssäule wird durch eine Druckmesszelle mit Edelstahlmembran aufgenommen und in der nachgeschalteten Elektronik in ein 4..20 mA - Ausgangssignal umgewandelt. Die Messzelle und die Elektronik sind in einem Edelstahlgehäuse eingebaut und vergossen. Der elektrische Anschluss erfolgt durch ein eingegossenes Anschlusskabel, das auch ein Trageil sowie ein Entlüftungsrohr enthält.

Die maximal zulässige Umgebungstemperatur beträgt -10°C bis +80°C.

Elektrische Daten

Ein-/ Ausgangsstromkreis
(Anschluss 2/braun (+), 1/blau (-))

in Zündschutzart Eigensicherheit EEx ia IIC nur zum Anschluss an einen bescheinigten eigensicheren Stromkreis.

Höchstwerte:

$$U_i = 30 \text{ V}$$

$$I_i = 100 \text{ mA}$$

$$P_i = 0,75 \text{ W}$$

Die wirksame innere Induktivität und innere Kapazität berechnet sich abhängig von der Länge des Anschlusskabels zu

$$L_i = 165 \mu\text{H} + 1,5 \mu\text{H/m}$$

$$C_i = 38,3 \text{ nF} + 0,25 \text{ nF/m}$$

(16) Die Prüfungsunterlagen sind im Prüfbericht Nr. 03 YEX 550272 aufgelistet.

(17) Besondere Bedingung

Für Anwendungen als Kategorie-1-Betriebsmittel darf die Umgebungstemperatur maximal 60 °C betragen.

Für Anwendungen als Kategorie-1-Betriebsmittel der Gruppe IIC sind gefährliche elektrostatische Aufladungen an der Oberfläche der Schutzkappe zu vermeiden.

(18) Grundlegende Sicherheits- und Gesundheitsanforderungen

keine zusätzlichen

| Date | Time | Hours Run | Active Pow | Intake 1 | Downstream Intake 1 | Upstream | FIT meter | | River Flow lps using equation from Stage Discharge | Distance from Sensor to HOF Notch crest (m) | Distance from Sensor to Coanda Crest (m) | Water Depth above Weir | Coanda Notch | | River Flow lps from intake notch calc | lps | Notes |
|------------|----------|-----------|------------|----------|---------------------|----------|-----------------------|----|--|---|--|------------------------|------------------------------------|---------------------------------------|---------------------------------------|-----|--|
| | | | | | | | 1 Active Energy (KWh) | KW | | | | | Flow from Intake notch calculation | Hof Notch Flow from notch calculation | | | |
| 17/12/2016 | 00:00:00 | 1481.82 | 200795 | 2.002 | 0.136 | 200180 | | | 83 | 0.030 | 0.075 | 0.061 | 0.036 | 0.036 | 72 | Q10 | 299 High values not calculated properly due to notch edges overflowing etc but not relevant to HOF |
| 17/12/2016 | 01:00:00 | 1482.82 | 200845 | 2.002 | 0.136 | 200230 | 50 | | 83 | 0.030 | 0.075 | 0.061 | 0.036 | 0.036 | 72 | Q50 | 70 |
| 17/12/2016 | 02:00:00 | 1483.82 | 200894 | 1.997 | 0.135 | 200279 | 49 | | 82 | 0.030 | 0.075 | 0.060 | 0.035 | 0.036 | 71 | Q70 | 40 |
| 17/12/2016 | 03:00:00 | 1484.82 | 200942 | 1.997 | 0.134 | 200326 | 47 | | 82 | 0.030 | 0.075 | 0.059 | 0.034 | 0.036 | 70 | Q80 | 31 |
| 17/12/2016 | 04:00:00 | 1485.82 | 200988 | 2.001 | 0.134 | 200373 | 47 | | 82 | 0.030 | 0.075 | 0.059 | 0.034 | 0.036 | 70 | Q90 | 25 |
| 17/12/2016 | 05:00:00 | 1486.82 | 201034 | 1.998 | 0.134 | 200419 | 46 | | 82 | 0.030 | 0.075 | 0.059 | 0.034 | 0.036 | 70 | Q95 | 21 |
| 17/12/2016 | 06:00:00 | 1487.82 | 201079 | 1.998 | 0.132 | 200464 | 45 | | 81 | 0.030 | 0.075 | 0.057 | 0.032 | 0.036 | 68 | | |
| 17/12/2016 | 07:00:00 | 1488.82 | 201123 | 2.002 | 0.132 | 200508 | 44 | | 81 | 0.030 | 0.075 | 0.057 | 0.032 | 0.036 | 68 | | |
| 17/12/2016 | 08:00:00 | 1489.82 | 201167 | 2.001 | 0.131 | 200551 | 43 | | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 | | |
| 17/12/2016 | 09:00:00 | 1490.82 | 201210 | 2.001 | 0.131 | 200594 | 43 | | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 | | |
| 17/12/2016 | 10:00:00 | 1491.82 | 201252 | 1.998 | 0.13 | 200636 | 42 | | 80 | 0.030 | 0.075 | 0.055 | 0.030 | 0.035 | 66 | | |
| 17/12/2016 | 11:00:00 | 1492.82 | 201293 | 2 | 0.13 | 200678 | 42 | | 80 | 0.030 | 0.075 | 0.055 | 0.030 | 0.035 | 66 | | |
| 17/12/2016 | 12:00:00 | 1493.82 | 201334 | 1.998 | 0.13 | 200718 | 40 | | 80 | 0.030 | 0.075 | 0.055 | 0.030 | 0.035 | 66 | | |
| 17/12/2016 | 13:00:00 | 1494.82 | 201375 | 2.003 | 0.13 | 200759 | 41 | | 80 | 0.030 | 0.075 | 0.055 | 0.030 | 0.035 | 66 | | |
| 17/12/2016 | 14:00:00 | 1495.83 | 201415 | 2.002 | 0.13 | 200799 | 40 | | 80 | 0.030 | 0.075 | 0.055 | 0.030 | 0.035 | 66 | | |
| 17/12/2016 | 15:00:00 | 1496.83 | 201455 | 1.997 | 0.129 | 200839 | 40 | | 79 | 0.030 | 0.075 | 0.054 | 0.030 | 0.035 | 65 | | |
| 17/12/2016 | 16:00:00 | 1497.83 | 201495 | 2.002 | 0.129 | 200879 | 40 | | 79 | 0.030 | 0.075 | 0.054 | 0.030 | 0.035 | 65 | | |
| 17/12/2016 | 17:00:00 | 1498.61 | 201526 | 2.351 | 0.129 | 200909 | 30 | | 79 | 0.030 | 0.075 | 0.054 | 0.030 | 0.035 | 65 | | |
| 17/12/2016 | 18:00:00 | 1498.61 | 201526 | 2.353 | 0.128 | 200909 | 0 | | 79 | 0.030 | 0.075 | 0.053 | 0.029 | 0.035 | 64 | | |
| 17/12/2016 | 19:00:00 | 1498.61 | 201526 | 2.352 | 0.128 | 200909 | 0 | | 79 | 0.030 | 0.075 | 0.053 | 0.029 | 0.035 | 64 | | |
| 17/12/2016 | 20:00:00 | 1498.61 | 201526 | 2.351 | 0.128 | 200909 | 0 | | 79 | 0.030 | 0.075 | 0.053 | 0.029 | 0.035 | 64 | | |
| 17/12/2016 | 21:00:00 | 1498.61 | 201526 | 2.351 | 0.128 | 200909 | 0 | | 79 | 0.030 | 0.075 | 0.053 | 0.029 | 0.035 | 64 | | |
| 17/12/2016 | 22:00:00 | 1498.61 | 201526 | 2.351 | 0.128 | 200909 | 0 | | 79 | 0.030 | 0.075 | 0.053 | 0.029 | 0.035 | 64 | | |
| 17/12/2016 | 23:00:00 | 1498.61 | 201526 | 2.351 | 0.126 | 200909 | 0 | | 78 | 0.030 | 0.075 | 0.051 | 0.027 | 0.035 | 62 | | |
| 18/12/2016 | 00:00:00 | 1498.61 | 201526 | 2.35 | 0.126 | 200909 | 0 | | 78 | 0.030 | 0.075 | 0.051 | 0.027 | 0.035 | 62 | | |
| 18/12/2016 | 01:00:00 | 1498.61 | 201526 | 2.351 | 0.127 | 200909 | 0 | | 78 | 0.030 | 0.075 | 0.052 | 0.028 | 0.035 | 63 | | |
| 18/12/2016 | 02:00:00 | 1498.61 | 201526 | 2.351 | 0.126 | 200909 | 0 | | 78 | 0.030 | 0.075 | 0.051 | 0.027 | 0.035 | 62 | | |
| 18/12/2016 | 03:00:00 | 1498.61 | 201526 | 2.351 | 0.127 | 200909 | 0 | | 78 | 0.030 | 0.075 | 0.052 | 0.028 | 0.035 | 63 | | |
| 18/12/2016 | 04:00:00 | 1498.61 | 201526 | 2.351 | 0.126 | 200909 | 0 | | 78 | 0.030 | 0.075 | 0.051 | 0.027 | 0.035 | 62 | | |
| 18/12/2016 | 05:00:00 | 1498.61 | 201526 | 2.351 | 0.125 | 200909 | 0 | | 77 | 0.030 | 0.075 | 0.050 | 0.026 | 0.035 | 61 | | |
| 18/12/2016 | 06:00:00 | 1498.61 | 201526 | 2.351 | 0.125 | 200909 | 0 | | 77 | 0.030 | 0.075 | 0.050 | 0.026 | 0.035 | 61 | | |
| 18/12/2016 | 07:00:00 | 1498.61 | 201526 | 2.351 | 0.125 | 200909 | 0 | | 77 | 0.030 | 0.075 | 0.050 | 0.026 | 0.035 | 61 | | |
| 18/12/2016 | 08:00:00 | 1498.61 | 201526 | 2.351 | 0.124 | 200909 | 0 | | 77 | 0.030 | 0.075 | 0.049 | 0.026 | 0.035 | 60 | | |
| 18/12/2016 | 09:00:00 | 1498.61 | 201526 | 2.351 | 0.125 | 200909 | 0 | | 77 | 0.030 | 0.075 | 0.050 | 0.026 | 0.035 | 61 | | |
| 18/12/2016 | 10:00:00 | 1498.61 | 201526 | 2.35 | 0.124 | 200909 | 0 | | 77 | 0.030 | 0.075 | 0.049 | 0.026 | 0.035 | 60 | | |
| 18/12/2016 | 11:00:00 | 1498.61 | 201526 | 2.35 | 0.124 | 200909 | 0 | | 77 | 0.030 | 0.075 | 0.049 | 0.026 | 0.035 | 60 | | |
| 18/12/2016 | 12:00:00 | 1498.61 | 201526 | 2.35 | 0.124 | 200909 | 0 | | 77 | 0.030 | 0.075 | 0.049 | 0.026 | 0.035 | 60 | | |
| 18/12/2016 | 13:00:00 | 1498.61 | 201526 | 2.35 | 0.124 | 200909 | 0 | | 77 | 0.030 | 0.075 | 0.049 | 0.026 | 0.035 | 60 | | |
| 18/12/2016 | 14:00:00 | 1498.61 | 201526 | 2.349 | 0.123 | 200909 | 0 | | 77 | 0.030 | 0.075 | 0.048 | 0.025 | 0.034 | 59 | | |
| 18/12/2016 | 15:00:00 | 1498.61 | 201526 | 2.35 | 0.123 | 200909 | 0 | | 77 | 0.030 | 0.075 | 0.048 | 0.025 | 0.034 | 59 | | |
| 18/12/2016 | 16:00:00 | 1498.61 | 201526 | 2.35 | 0.123 | 200909 | 0 | | 77 | 0.030 | 0.075 | 0.048 | 0.025 | 0.034 | 59 | | |
| 18/12/2016 | 17:00:00 | 1498.61 | 201526 | 2.35 | 0.123 | 200909 | 0 | | 77 | 0.030 | 0.075 | 0.048 | 0.025 | 0.034 | 59 | | |
| 18/12/2016 | 18:00:00 | 1498.61 | 201526 | 2.35 | 0.123 | 200909 | 0 | | 77 | 0.030 | 0.075 | 0.048 | 0.025 | 0.034 | 59 | | |
| 18/12/2016 | 19:00:00 | 1498.61 | 201526 | 2.35 | 0.123 | 200909 | 0 | | 77 | 0.030 | 0.075 | 0.048 | 0.025 | 0.034 | 59 | | |
| 18/12/2016 | 20:00:00 | 1498.61 | 201526 | 2.35 | 0.122 | 200909 | 0 | | 76 | 0.030 | 0.075 | 0.047 | 0.024 | 0.034 | 58 | | |
| 18/12/2016 | 21:00:00 | 1498.61 | 201526 | 2.35 | 0.122 | 200909 | 0 | | 76 | 0.030 | 0.075 | 0.047 | 0.024 | 0.034 | 58 | | |
| 18/12/2016 | 22:00:00 | 1498.61 | 201526 | 2.35 | 0.122 | 200909 | 0 | | 76 | 0.030 | 0.075 | 0.047 | 0.024 | 0.034 | 58 | | |
| 18/12/2016 | 23:00:00 | 1498.61 | 201526 | 2.35 | 0.122 | 200909 | 0 | | 76 | 0.030 | 0.075 | 0.047 | 0.024 | 0.034 | 58 | | |
| 19/12/2016 | 00:00:00 | 1498.61 | 201526 | 2.35 | 0.122 | 200909 | 0 | | 76 | 0.030 | 0.075 | 0.047 | 0.024 | 0.034 | 58 | | |
| 19/12/2016 | 01:00:00 | 1498.61 | 201526 | 2.349 | 0.122 | 200909 | 0 | | 76 | 0.030 | 0.075 | 0.047 | 0.024 | 0.034 | 58 | | |
| 19/12/2016 | 02:00:00 | 1498.61 | 201526 | 2.35 | 0.121 | 200909 | 0 | | 76 | 0.030 | 0.075 | 0.046 | 0.023 | 0.034 | 57 | | |
| 19/12/2016 | 03:00:00 | 1498.61 | 201526 | 2.349 | 0.12 | 200909 | 0 | | 75 | 0.030 | 0.075 | 0.045 | 0.023 | 0.034 | 56 | | |
| 19/12/2016 | 04:00:00 | 1498.61 | 201526 | 2.349 | 0.12 | 200909 | 0 | | 75 | 0.030 | 0.075 | 0.045 | 0.023 | 0.034 | 56 | | |
| 19/12/2016 | 05:00:00 | 1498.61 | 201526 | 2.349 | 0.12 | 200909 | 0 | | 75 | 0.030 | 0.075 | 0.045 | 0.023 | 0.034 | 56 | | |
| 19/12/2016 | 06:00:00 | 1498.61 | 201526 | 2.349 | 0.12 | 200909 | 0 | | 75 | 0.030 | 0.075 | 0.045 | 0.023 | 0.034 | 56 | | |
| 19/12/2016 | 07:00:00 | 1498.61 | 201526 | 2.35 | 0.12 | 200909 | 0 | | 75 | 0.030 | 0.075 | 0.045 | 0.023 | 0.034 | 56 | | |
| 19/12/2016 | 08:00:00 | 1498.61 | 201526 | 2.349 | 0.12 | 200909 | 0 | | 75 | 0.030 | 0.075 | 0.045 | 0.023 | 0.034 | 56 | | |
| 19/12/2016 | 09:00:00 | 1498.61 | 201526 | 2.348 | 0.12 | 200909 | 0 | | 75 | 0.030 | 0.075 | 0.045 | 0.023 | 0.034 | 56 | | |
| 19/12/2016 | 10:00:00 | 1498.61 | 201526 | 2.349 | 0.12 | 200909 | 0 | | 75 | 0.030 | 0.075 | 0.045 | 0.023 | 0.034 | 56 | | |
| 19/12/2016 | 11:00:00 | 1498.61 | 201526 | 2.349 | 0.119 | 200909 | 0 | | 75 | 0.030 | 0.075 | 0.044 | 0.022 | 0.034 | 56 | | |
| 19/12/2016 | 12:00:00 | 1498.61 | 201526 | 2.349 | 0.119 | 200909 | 0 | | 75 | 0.030 | 0.075 | 0.044 | 0.022 | 0.034 | 56 | | |
| 19/12/2016 | 13:00:00 | 1498.61 | 201526 | 2.349 | 0.119 | 200909 | 0 | | 75 | 0.030 | 0.075 | 0.044 | 0.022 | 0.034 | 56 | | |
| 19/12/2016 | 14:00:00 | 1498.61 | 201526 | 2.349 | 0.119 | 200909 | 0 | | 75 | 0.030 | 0.075 | 0.044 | 0.022 | 0.034 | 56 | | |
| 19/12/2016 | 15:00:00 | 1498.61 | 201526 | 2.348 | 0.119 | 200909 | 0 | | 75 | 0.030 | 0.075 | 0.044 | 0.022 | 0.034 | 56 | | |
| 19/12/2016 | 16:00:00 | 1498.61 | 201526 | 2.349 | 0.119 | 200909 | 0 | | 75 | 0.030 | 0.075 | 0.044 | 0.022 | 0.034 | 56 | | |
| 19/12/2016 | 17:00:00 | 1498.61 | 201526 | 2.348 | 0.119 | 200909 | 0 | | 75 | 0.030 | 0.075 | 0.044 | 0.022 | 0.034 | 56 | | |
| 19/12/2016 | 18:00:00 | 1498.61 | 201526 | 2.35 | 0.122 | 200909 | 0 | | 76 | 0.030 | 0.075 | 0.047 | 0.024 | 0.034 | 58 | | |
| 19/12/2016 | 19:00:00 | 1498.61 | 201526 | 2.351 | 0.122 | 200909 | 0 | | 76 | 0.030 | 0.075 | 0.047 | 0.024 | 0.034 | 58 | | |
| 19/12/2016 | 20:00:00 | 1498.61 | 201526 | 2.351 | 0.122 | 200909 | 0 | | 76 | 0.030 | 0.075 | 0.047 | 0.024 | 0.034 | 58 | | |
| 19/12/2016 | 21:00:00 | 1498.61 | 201526 | 2.35 | 0.122 | 200909 | 0 | | 76 | 0.030 | 0.075 | 0.047 | 0.024 | 0.034 | 58 | | |
| 19/12/2016 | 22:00:00 | 1498.61 | 201526 | 2.349 | 0.12 | 200909 | 0 | | 75 | 0.030 | 0.075 | 0.045 | 0.023 | 0.034 | 56 | | |
| 19/12/2016 | 23:00:00 | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | |
|------------|----------|---------|--------|-------|-------|--------|-----|------|-------|-------|-------|-------|-------|------|
| 20/12/2016 | 14:00:00 | 1498.61 | 201526 | 2.346 | 0.116 | 200909 | 0 | 74 | 0.030 | 0.075 | 0.041 | 0.020 | 0.033 | 53 |
| 20/12/2016 | 15:00:00 | 1498.61 | 201526 | 2.346 | 0.114 | 200909 | 0 | 73 | 0.030 | 0.075 | 0.039 | 0.018 | 0.033 | 51 |
| 20/12/2016 | 16:00:00 | 1498.61 | 201526 | 2.345 | 0.116 | 200909 | 0 | 74 | 0.030 | 0.075 | 0.041 | 0.020 | 0.033 | 53 |
| 20/12/2016 | 17:00:00 | 1498.61 | 201526 | 2.346 | 0.116 | 200909 | 0 | 74 | 0.030 | 0.075 | 0.041 | 0.020 | 0.033 | 53 |
| 20/12/2016 | 18:00:00 | 1498.61 | 201526 | 2.347 | 0.115 | 200909 | 0 | 74 | 0.030 | 0.075 | 0.040 | 0.019 | 0.033 | 52 |
| 20/12/2016 | 19:00:00 | 1498.61 | 201526 | 2.347 | 0.116 | 200909 | 0 | 74 | 0.030 | 0.075 | 0.041 | 0.020 | 0.033 | 53 |
| 20/12/2016 | 20:00:00 | 1498.61 | 201526 | 2.346 | 0.117 | 200909 | 0 | 74 | 0.030 | 0.075 | 0.042 | 0.020 | 0.034 | 54 |
| 20/12/2016 | 21:00:00 | 1498.61 | 201526 | 2.348 | 0.117 | 200909 | 0 | 74 | 0.030 | 0.075 | 0.042 | 0.020 | 0.034 | 54 |
| 20/12/2016 | 22:00:00 | 1498.61 | 201526 | 2.352 | 0.121 | 200909 | 0 | 76 | 0.030 | 0.075 | 0.046 | 0.023 | 0.034 | 57 |
| 20/12/2016 | 23:00:00 | 1498.61 | 201526 | 2.361 | 0.132 | 200909 | 0 | 81 | 0.030 | 0.075 | 0.057 | 0.032 | 0.036 | 68 |
| 21/12/2016 | 00:00:00 | 1498.61 | 201526 | 2.384 | 0.159 | 200909 | 0 | 96 | 0.030 | 0.075 | 0.084 | 0.058 | 0.039 | 97 |
| 21/12/2016 | 01:00:00 | 1498.61 | 201526 | 2.439 | 0.223 | 200909 | 0 | 151 | 0.030 | 0.075 | 0.148 | 0.135 | 0.046 | 181 |
| 21/12/2016 | 02:00:00 | 1498.61 | 201526 | 2.523 | 0.308 | 200909 | 0 | 265 | 0.030 | 0.075 | 0.233 | 0.266 | 0.054 | 320 |
| 21/12/2016 | 03:00:00 | 1498.61 | 201526 | 2.496 | 0.284 | 200909 | 0 | 228 | 0.030 | 0.075 | 0.209 | 0.226 | 0.052 | 278 |
| 21/12/2016 | 04:00:00 | 1498.61 | 201526 | 2.462 | 0.25 | 200909 | 0 | 182 | 0.030 | 0.075 | 0.175 | 0.173 | 0.049 | 222 |
| 21/12/2016 | 05:00:00 | 1498.61 | 201526 | 2.435 | 0.222 | 200909 | 0 | 150 | 0.030 | 0.075 | 0.147 | 0.133 | 0.046 | 179 |
| 21/12/2016 | 06:00:00 | 1498.61 | 201526 | 2.418 | 0.201 | 200909 | 0 | 129 | 0.030 | 0.075 | 0.126 | 0.106 | 0.044 | 150 |
| 21/12/2016 | 07:00:00 | 1498.61 | 201526 | 2.407 | 0.185 | 200909 | 0 | 115 | 0.030 | 0.075 | 0.110 | 0.086 | 0.042 | 128 |
| 21/12/2016 | 08:00:00 | 1498.61 | 201526 | 2.404 | 0.184 | 200909 | 0 | 114 | 0.030 | 0.075 | 0.109 | 0.085 | 0.042 | 127 |
| 21/12/2016 | 09:00:00 | 1498.61 | 201526 | 2.454 | 0.248 | 200909 | 0 | 179 | 0.030 | 0.075 | 0.173 | 0.170 | 0.049 | 219 |
| 21/12/2016 | 10:00:00 | 1498.61 | 201526 | 2.545 | 0.33 | 200909 | 0 | 302 | 0.030 | 0.075 | 0.255 | 0.304 | 0.056 | 360 |
| 21/12/2016 | 11:00:00 | 1498.61 | 201526 | 2.623 | 0.414 | 200909 | 0 | 473 | 0.030 | 0.075 | 0.339 | 0.466 | 0.063 | 529 |
| 21/12/2016 | 12:00:00 | 1498.61 | 201526 | 2.589 | 0.378 | 200909 | 0 | 394 | 0.030 | 0.075 | 0.303 | 0.394 | 0.060 | 454 |
| 21/12/2016 | 13:00:00 | 1498.61 | 201526 | 2.559 | 0.338 | 200909 | 0 | 316 | 0.030 | 0.075 | 0.263 | 0.319 | 0.057 | 376 |
| 21/12/2016 | 14:00:00 | 1498.61 | 201526 | 2.52 | 0.299 | 200909 | 0 | 250 | 0.030 | 0.075 | 0.224 | 0.250 | 0.054 | 304 |
| 21/12/2016 | 15:00:00 | 1498.61 | 201526 | 2.481 | 0.267 | 200909 | 0 | 204 | 0.030 | 0.075 | 0.192 | 0.199 | 0.051 | 249 |
| 21/12/2016 | 16:00:00 | 1498.61 | 201526 | 2.446 | 0.243 | 200909 | 0 | 173 | 0.030 | 0.075 | 0.168 | 0.163 | 0.048 | 211 |
| 21/12/2016 | 17:00:00 | 1498.61 | 201526 | 2.44 | 0.225 | 200909 | 0 | 153 | 0.030 | 0.075 | 0.150 | 0.137 | 0.046 | 184 |
| 21/12/2016 | 18:00:00 | 1498.61 | 201526 | 2.433 | 0.212 | 200909 | 0 | 139 | 0.030 | 0.075 | 0.137 | 0.120 | 0.045 | 165 |
| 21/12/2016 | 19:00:00 | 1498.61 | 201526 | 2.419 | 0.201 | 200909 | 0 | 129 | 0.030 | 0.075 | 0.126 | 0.106 | 0.044 | 150 |
| 21/12/2016 | 20:00:00 | 1498.61 | 201526 | 2.412 | 0.192 | 200909 | 0 | 121 | 0.030 | 0.075 | 0.117 | 0.095 | 0.043 | 137 |
| 21/12/2016 | 21:00:00 | 1498.61 | 201526 | 2.406 | 0.185 | 200909 | 0 | 115 | 0.030 | 0.075 | 0.110 | 0.086 | 0.042 | 128 |
| 21/12/2016 | 22:00:00 | 1498.61 | 201526 | 2.404 | 0.181 | 200909 | 0 | 112 | 0.030 | 0.075 | 0.106 | 0.082 | 0.042 | 123 |
| 21/12/2016 | 23:00:00 | 1498.61 | 201526 | 2.399 | 0.175 | 200909 | 0 | 107 | 0.030 | 0.075 | 0.100 | 0.075 | 0.041 | 116 |
| 22/12/2016 | 00:00:00 | 1498.61 | 201526 | 2.394 | 0.171 | 200909 | 0 | 104 | 0.030 | 0.075 | 0.096 | 0.070 | 0.041 | 111 |
| 22/12/2016 | 01:00:00 | 1498.61 | 201526 | 2.394 | 0.168 | 200909 | 0 | 102 | 0.030 | 0.075 | 0.093 | 0.067 | 0.040 | 107 |
| 22/12/2016 | 02:00:00 | 1498.61 | 201526 | 2.391 | 0.164 | 200909 | 0 | 99 | 0.030 | 0.075 | 0.089 | 0.063 | 0.040 | 102 |
| 22/12/2016 | 03:00:00 | 1498.61 | 201526 | 2.389 | 0.163 | 200909 | 0 | 98 | 0.030 | 0.075 | 0.088 | 0.062 | 0.040 | 101 |
| 22/12/2016 | 04:00:00 | 1498.61 | 201526 | 2.387 | 0.161 | 200909 | 0 | 97 | 0.030 | 0.075 | 0.086 | 0.060 | 0.039 | 99 |
| 22/12/2016 | 05:00:00 | 1498.61 | 201526 | 2.387 | 0.161 | 200909 | 0 | 97 | 0.030 | 0.075 | 0.086 | 0.060 | 0.039 | 99 |
| 22/12/2016 | 06:00:00 | 1498.61 | 201526 | 2.395 | 0.168 | 200909 | 0 | 102 | 0.030 | 0.075 | 0.093 | 0.067 | 0.040 | 107 |
| 22/12/2016 | 07:00:00 | 1498.61 | 201526 | 2.397 | 0.169 | 200909 | 0 | 103 | 0.030 | 0.075 | 0.094 | 0.068 | 0.040 | 108 |
| 22/12/2016 | 08:00:00 | 1498.61 | 201526 | 2.4 | 0.173 | 200909 | 0 | 105 | 0.030 | 0.075 | 0.098 | 0.072 | 0.041 | 113 |
| 22/12/2016 | 09:00:00 | 1498.61 | 201526 | 2.4 | 0.174 | 200909 | 0 | 106 | 0.030 | 0.075 | 0.099 | 0.074 | 0.041 | 114 |
| 22/12/2016 | 10:00:00 | 1498.61 | 201526 | 2.4 | 0.171 | 200909 | 0 | 104 | 0.030 | 0.075 | 0.096 | 0.070 | 0.041 | 111 |
| 22/12/2016 | 11:00:00 | 1498.64 | 201527 | 2.39 | 0.173 | 200911 | 2 | 105 | 0.030 | 0.075 | 0.098 | 0.072 | 0.041 | 113 |
| 22/12/2016 | 12:00:00 | 1498.64 | 201527 | 2.405 | 0.175 | 200911 | 0 | 107 | 0.030 | 0.075 | 0.100 | 0.075 | 0.041 | 116 |
| 22/12/2016 | 13:00:00 | 1498.82 | 201543 | 2.213 | 0.176 | 200927 | 16 | 108 | 0.030 | 0.075 | 0.101 | 0.076 | 0.041 | 117 |
| 22/12/2016 | 14:00:00 | 1499.82 | 201658 | 1.997 | 0.174 | 201041 | 114 | 106 | 0.030 | 0.075 | 0.099 | 0.074 | 0.041 | 114 |
| 22/12/2016 | 15:00:00 | 1500.82 | 201767 | 1.992 | 0.17 | 201151 | 110 | 103 | 0.030 | 0.075 | 0.095 | 0.069 | 0.040 | 110 |
| 22/12/2016 | 16:00:00 | 1501.82 | 201871 | 1.998 | 0.168 | 201254 | 103 | 102 | 0.030 | 0.075 | 0.093 | 0.067 | 0.040 | 107 |
| 22/12/2016 | 17:00:00 | 1502.82 | 201969 | 2.003 | 0.164 | 201352 | 98 | 99 | 0.030 | 0.075 | 0.089 | 0.063 | 0.040 | 102 |
| 22/12/2016 | 18:00:00 | 1503.82 | 202062 | 1.998 | 0.159 | 201445 | 93 | 96 | 0.030 | 0.075 | 0.084 | 0.058 | 0.039 | 97 |
| 22/12/2016 | 19:00:00 | 1504.82 | 202153 | 1.998 | 0.158 | 201535 | 90 | 95 | 0.030 | 0.075 | 0.083 | 0.056 | 0.039 | 95 |
| 22/12/2016 | 20:00:00 | 1505.82 | 202240 | 2.004 | 0.157 | 201622 | 87 | 94 | 0.030 | 0.075 | 0.082 | 0.055 | 0.039 | 94 |
| 22/12/2016 | 21:00:00 | 1506.82 | 202325 | 1.997 | 0.155 | 201707 | 85 | 93 | 0.030 | 0.075 | 0.080 | 0.053 | 0.039 | 92 |
| 22/12/2016 | 22:00:00 | 1507.82 | 202407 | 2.003 | 0.153 | 201788 | 81 | 92 | 0.030 | 0.075 | 0.078 | 0.051 | 0.038 | 90 |
| 22/12/2016 | 23:00:00 | 1508.82 | 202485 | 1.998 | 0.152 | 201867 | 79 | 91 | 0.030 | 0.075 | 0.077 | 0.050 | 0.038 | 89 |
| 23/12/2016 | 00:00:00 | 1509.82 | 202561 | 1.998 | 0.152 | 201942 | 75 | 91 | 0.030 | 0.075 | 0.077 | 0.050 | 0.038 | 89 |
| 23/12/2016 | 01:00:00 | 1510.82 | 202634 | 2 | 0.151 | 202016 | 74 | 91 | 0.030 | 0.075 | 0.076 | 0.049 | 0.038 | 88 |
| 23/12/2016 | 02:00:00 | 1511.82 | 202706 | 1.998 | 0.151 | 202087 | 71 | 91 | 0.030 | 0.075 | 0.076 | 0.049 | 0.038 | 88 |
| 23/12/2016 | 03:00:00 | 1512.82 | 202777 | 1.998 | 0.15 | 202158 | 71 | 90 | 0.030 | 0.075 | 0.075 | 0.049 | 0.038 | 86 |
| 23/12/2016 | 04:00:00 | 1513.82 | 202846 | 1.996 | 0.149 | 202227 | 69 | 90 | 0.030 | 0.075 | 0.074 | 0.048 | 0.038 | 85 |
| 23/12/2016 | 05:00:00 | 1514.82 | 202918 | 2.001 | 0.156 | 202298 | 71 | 94 | 0.030 | 0.075 | 0.081 | 0.054 | 0.039 | 93 |
| 23/12/2016 | 06:00:00 | 1515.82 | 203001 | 2.008 | 0.158 | 202382 | 84 | 95 | 0.030 | 0.075 | 0.083 | 0.056 | 0.039 | 95 |
| 23/12/2016 | 07:00:00 | 1516.82 | 203085 | 1.999 | 0.156 | 202465 | 83 | 94 | 0.030 | 0.075 | 0.081 | 0.054 | 0.039 | 93 |
| 23/12/2016 | 08:00:00 | 1517.82 | 203165 | 2.002 | 0.155 | 202545 | 80 | 93 | 0.030 | 0.075 | 0.080 | 0.053 | 0.039 | 92 |
| 23/12/2016 | 09:00:00 | 1518.82 | 203246 | 1.997 | 0.157 | 202626 | 81 | 94 | 0.030 | 0.075 | 0.082 | 0.055 | 0.039 | 94 |
| 23/12/2016 | 10:00:00 | 1519.82 | 203346 | 2.02 | 0.183 | 202725 | 99 | 113 | 0.030 | 0.075 | 0.108 | 0.084 | 0.042 | 126 |
| 23/12/2016 | 11:00:00 | 1520.82 | 203599 | 2.387 | 0.411 | 202978 | 253 | 466 | 0.030 | 0.075 | 0.336 | 0.460 | 0.063 | 523 |
| 23/12/2016 | 12:00:00 | 1521.82 | 203987 | 2.727 | 0.58 | 203365 | 387 | 947 | 0.030 | 0.075 | 0.505 | 0.848 | 0.075 | 922 |
| 23/12/2016 | 13:00:00 | 1522.82 | 204376 | 3.049 | 0.848 | 203754 | 389 | 2090 | 0.030 | 0.075 | 0.773 | 1.606 | 0.090 | 1696 |
| 23/12/2016 | 14:00:00 | 1523.82 | 204766 | 3.142 | 0.868 | 204142 | 388 | 2194 | 0.030 | 0.075 | 0.793 | 1.668 | 0.091 | 1760 |
| 23/12/2016 | 15:00:00 | 1524.82 | 205156 | 3.139 | 0.896 | 204531 | 389 | 2344 | 0.030 | 0.075 | 0.821 | 1.757 | 0.093 | 1850 |
| 23/12/2016 | 16:00:00 | 1525.82 | 205545 | 2.941 | 0.754 | 204920 | 389 | 1636 | 0.030 | 0.075 | 0.679 | 1.322 | 0.085 | 1407 |
| 23/12/2016 | 17:00:00 | 1526.82 | 205935 | 2.798 | 0.61 | 205308 | 388 | 1051 | 0.030 | 0.075 | 0.535 | 0.924 | 0.077 | 1001 |
| 23/12/2016 | 18:00:00 | 1527.82 | 206323 | 2.702 | 0.523 | 205696 | 388 | 764 | 0.030 | 0.075 | 0.448 | 0.708 | 0.071 | 779 |
| 23/12/2016 | 19:00:00 | 1528.82 | 206712 | 2.563 | 0.457 | 206084 | 388 | 579 | 0.030 | 0.075 | 0.382 | 0 | | |

| | | | | | | | | | | | | | | |
|------------|----------|---------|--------|-------|-------|--------|-----|-----|-------|-------|-------|-------|-------|-----|
| 24/12/2016 | 10:00:00 | 1543.82 | 211178 | 2.013 | 0.208 | 210539 | 189 | 135 | 0.030 | 0.075 | 0.133 | 0.115 | 0.045 | 159 |
| 24/12/2016 | 11:00:00 | 1544.82 | 211359 | 2.001 | 0.206 | 210720 | 181 | 133 | 0.030 | 0.075 | 0.131 | 0.112 | 0.044 | 156 |
| 24/12/2016 | 12:00:00 | 1545.82 | 211532 | 2.006 | 0.2 | 210892 | 172 | 128 | 0.030 | 0.075 | 0.125 | 0.104 | 0.044 | 148 |
| 24/12/2016 | 13:00:00 | 1546.82 | 211700 | 2 | 0.196 | 211059 | 167 | 124 | 0.030 | 0.075 | 0.121 | 0.099 | 0.043 | 143 |
| 24/12/2016 | 14:00:00 | 1547.82 | 211862 | 1.994 | 0.196 | 211221 | 162 | 124 | 0.030 | 0.075 | 0.121 | 0.099 | 0.043 | 143 |
| 24/12/2016 | 15:00:00 | 1548.82 | 212018 | 2.006 | 0.226 | 211377 | 156 | 154 | 0.030 | 0.075 | 0.151 | 0.139 | 0.047 | 185 |
| 24/12/2016 | 16:00:00 | 1549.83 | 212165 | 2.001 | 0.219 | 211524 | 147 | 146 | 0.030 | 0.075 | 0.144 | 0.129 | 0.046 | 175 |
| 24/12/2016 | 17:00:00 | 1550.83 | 212317 | 2.001 | 0.224 | 211675 | 151 | 152 | 0.030 | 0.075 | 0.149 | 0.136 | 0.046 | 182 |
| 24/12/2016 | 18:00:00 | 1551.83 | 212475 | 2.006 | 0.227 | 211833 | 158 | 155 | 0.030 | 0.075 | 0.152 | 0.140 | 0.047 | 187 |
| 24/12/2016 | 19:00:00 | 1552.83 | 212634 | 1.995 | 0.228 | 211991 | 158 | 156 | 0.030 | 0.075 | 0.153 | 0.141 | 0.047 | 188 |
| 24/12/2016 | 20:00:00 | 1553.83 | 212793 | 2.001 | 0.23 | 212150 | 159 | 158 | 0.030 | 0.075 | 0.155 | 0.144 | 0.047 | 191 |
| 24/12/2016 | 21:00:00 | 1554.83 | 212961 | 2.009 | 0.245 | 212317 | 167 | 176 | 0.030 | 0.075 | 0.170 | 0.166 | 0.049 | 214 |
| 24/12/2016 | 22:00:00 | 1555.83 | 213150 | 2.003 | 0.257 | 212505 | 188 | 191 | 0.030 | 0.075 | 0.182 | 0.183 | 0.050 | 233 |
| 24/12/2016 | 23:00:00 | 1556.83 | 213367 | 2.007 | 0.268 | 212722 | 217 | 205 | 0.030 | 0.075 | 0.193 | 0.200 | 0.051 | 251 |
| 25/12/2016 | 00:00:00 | 1557.83 | 213652 | 2.025 | 0.309 | 213006 | 284 | 266 | 0.030 | 0.075 | 0.234 | 0.267 | 0.054 | 322 |
| 25/12/2016 | 01:00:00 | 1558.83 | 214013 | 2.003 | 0.327 | 213366 | 360 | 297 | 0.030 | 0.075 | 0.252 | 0.299 | 0.056 | 355 |
| 25/12/2016 | 02:00:00 | 1559.83 | 214400 | 2.186 | 0.335 | 213752 | 386 | 311 | 0.030 | 0.075 | 0.260 | 0.313 | 0.057 | 370 |
| 25/12/2016 | 03:00:00 | 1560.83 | 214787 | 1.985 | 0.327 | 214138 | 386 | 297 | 0.030 | 0.075 | 0.252 | 0.299 | 0.056 | 355 |
| 25/12/2016 | 04:00:00 | 1561.83 | 215162 | 2 | 0.324 | 214512 | 374 | 292 | 0.030 | 0.075 | 0.249 | 0.294 | 0.056 | 349 |
| 25/12/2016 | 05:00:00 | 1562.83 | 215538 | 1.995 | 0.322 | 214888 | 376 | 288 | 0.030 | 0.075 | 0.247 | 0.290 | 0.056 | 346 |
| 25/12/2016 | 06:00:00 | 1563.83 | 215902 | 1.998 | 0.315 | 215251 | 363 | 276 | 0.030 | 0.075 | 0.240 | 0.278 | 0.055 | 333 |
| 25/12/2016 | 07:00:00 | 1564.83 | 216245 | 2.011 | 0.313 | 215593 | 342 | 273 | 0.030 | 0.075 | 0.238 | 0.274 | 0.055 | 329 |
| 25/12/2016 | 08:00:00 | 1565.83 | 216613 | 2.228 | 0.35 | 215961 | 368 | 339 | 0.030 | 0.075 | 0.275 | 0.341 | 0.058 | 399 |
| 25/12/2016 | 09:00:00 | 1566.83 | 217001 | 2.326 | 0.372 | 216348 | 387 | 382 | 0.030 | 0.075 | 0.297 | 0.382 | 0.060 | 442 |
| 25/12/2016 | 10:00:00 | 1567.83 | 217390 | 2.344 | 0.379 | 216735 | 387 | 396 | 0.030 | 0.075 | 0.304 | 0.396 | 0.060 | 456 |
| 25/12/2016 | 11:00:00 | 1568.83 | 217778 | 2.333 | 0.374 | 217123 | 388 | 386 | 0.030 | 0.075 | 0.299 | 0.386 | 0.060 | 446 |
| 25/12/2016 | 12:00:00 | 1569.83 | 218166 | 2.369 | 0.397 | 217510 | 387 | 435 | 0.030 | 0.075 | 0.322 | 0.432 | 0.062 | 493 |
| 25/12/2016 | 13:00:00 | 1570.83 | 218555 | 2.349 | 0.388 | 217898 | 388 | 415 | 0.030 | 0.075 | 0.313 | 0.414 | 0.061 | 475 |
| 25/12/2016 | 14:00:00 | 1571.83 | 218943 | 2.341 | 0.38 | 218285 | 387 | 398 | 0.030 | 0.075 | 0.305 | 0.398 | 0.060 | 458 |
| 25/12/2016 | 15:00:00 | 1572.83 | 219331 | 2.339 | 0.381 | 218672 | 387 | 400 | 0.030 | 0.075 | 0.306 | 0.400 | 0.060 | 460 |
| 25/12/2016 | 16:00:00 | 1573.83 | 219719 | 2.38 | 0.412 | 219060 | 388 | 469 | 0.030 | 0.075 | 0.337 | 0.462 | 0.063 | 525 |
| 25/12/2016 | 17:00:00 | 1574.83 | 220108 | 2.587 | 0.523 | 219447 | 387 | 764 | 0.030 | 0.075 | 0.448 | 0.708 | 0.071 | 779 |
| 25/12/2016 | 18:00:00 | 1575.83 | 220497 | 2.677 | 0.546 | 219835 | 388 | 835 | 0.030 | 0.075 | 0.471 | 0.764 | 0.072 | 836 |
| 25/12/2016 | 19:00:00 | 1576.83 | 220886 | 2.641 | 0.533 | 220224 | 389 | 794 | 0.030 | 0.075 | 0.458 | 0.732 | 0.072 | 804 |
| 25/12/2016 | 20:00:00 | 1577.83 | 221275 | 2.647 | 0.549 | 220612 | 388 | 845 | 0.030 | 0.075 | 0.474 | 0.771 | 0.073 | 844 |
| 25/12/2016 | 21:00:00 | 1578.83 | 221664 | 2.689 | 0.554 | 221000 | 388 | 861 | 0.030 | 0.075 | 0.479 | 0.783 | 0.073 | 856 |
| 25/12/2016 | 22:00:00 | 1579.83 | 222053 | 2.593 | 0.512 | 221388 | 388 | 731 | 0.030 | 0.075 | 0.437 | 0.682 | 0.070 | 753 |
| 25/12/2016 | 23:00:00 | 1580.83 | 222442 | 2.48 | 0.453 | 221776 | 388 | 568 | 0.030 | 0.075 | 0.378 | 0.549 | 0.066 | 615 |
| 26/12/2016 | 00:00:00 | 1581.83 | 222831 | 2.404 | 0.407 | 222164 | 388 | 457 | 0.030 | 0.075 | 0.332 | 0.452 | 0.063 | 514 |
| 26/12/2016 | 01:00:00 | 1582.83 | 223219 | 2.345 | 0.368 | 222551 | 387 | 374 | 0.030 | 0.075 | 0.293 | 0.375 | 0.059 | 434 |
| 26/12/2016 | 02:00:00 | 1583.83 | 223607 | 2.297 | 0.343 | 222939 | 388 | 325 | 0.030 | 0.075 | 0.268 | 0.328 | 0.057 | 385 |
| 26/12/2016 | 03:00:00 | 1584.83 | 223996 | 2.294 | 0.33 | 223326 | 387 | 302 | 0.030 | 0.075 | 0.255 | 0.304 | 0.056 | 360 |
| 26/12/2016 | 04:00:00 | 1585.83 | 224384 | 2.256 | 0.311 | 223713 | 387 | 270 | 0.030 | 0.075 | 0.236 | 0.271 | 0.055 | 325 |
| 26/12/2016 | 05:00:00 | 1586.83 | 224772 | 2.203 | 0.296 | 224101 | 388 | 246 | 0.030 | 0.075 | 0.221 | 0.245 | 0.053 | 299 |
| 26/12/2016 | 06:00:00 | 1587.83 | 225151 | 1.998 | 0.288 | 224479 | 378 | 234 | 0.030 | 0.075 | 0.213 | 0.232 | 0.053 | 285 |
| 26/12/2016 | 07:00:00 | 1588.83 | 225502 | 2.014 | 0.278 | 224829 | 350 | 219 | 0.030 | 0.075 | 0.203 | 0.216 | 0.052 | 268 |
| 26/12/2016 | 08:00:00 | 1589.83 | 225829 | 1.996 | 0.272 | 225155 | 326 | 211 | 0.030 | 0.075 | 0.197 | 0.207 | 0.051 | 258 |
| 26/12/2016 | 09:00:00 | 1590.83 | 226138 | 2.01 | 0.265 | 225463 | 308 | 201 | 0.030 | 0.075 | 0.190 | 0.196 | 0.050 | 246 |
| 26/12/2016 | 10:00:00 | 1591.83 | 226431 | 2.002 | 0.254 | 225756 | 293 | 187 | 0.030 | 0.075 | 0.179 | 0.179 | 0.049 | 228 |
| 26/12/2016 | 11:00:00 | 1592.83 | 226710 | 1.982 | 0.249 | 226034 | 278 | 181 | 0.030 | 0.075 | 0.174 | 0.171 | 0.049 | 220 |
| 26/12/2016 | 12:00:00 | 1593.83 | 226978 | 1.995 | 0.245 | 226301 | 267 | 176 | 0.030 | 0.075 | 0.170 | 0.166 | 0.049 | 214 |
| 26/12/2016 | 13:00:00 | 1594.83 | 227235 | 1.999 | 0.24 | 226558 | 257 | 170 | 0.030 | 0.075 | 0.165 | 0.158 | 0.048 | 206 |
| 26/12/2016 | 14:00:00 | 1595.83 | 227483 | 1.99 | 0.237 | 226806 | 248 | 166 | 0.030 | 0.075 | 0.162 | 0.154 | 0.048 | 202 |
| 26/12/2016 | 15:00:00 | 1596.83 | 227724 | 2.002 | 0.234 | 227045 | 239 | 163 | 0.030 | 0.075 | 0.159 | 0.150 | 0.047 | 197 |
| 26/12/2016 | 16:00:00 | 1597.83 | 227956 | 2.003 | 0.232 | 227277 | 232 | 160 | 0.030 | 0.075 | 0.157 | 0.147 | 0.047 | 194 |
| 26/12/2016 | 17:00:00 | 1598.83 | 228183 | 2.007 | 0.226 | 227503 | 226 | 154 | 0.030 | 0.075 | 0.151 | 0.139 | 0.047 | 185 |
| 26/12/2016 | 18:00:00 | 1599.83 | 228403 | 1.998 | 0.224 | 227723 | 220 | 152 | 0.030 | 0.075 | 0.149 | 0.136 | 0.046 | 182 |
| 26/12/2016 | 19:00:00 | 1600.83 | 228618 | 1.997 | 0.222 | 227937 | 214 | 150 | 0.030 | 0.075 | 0.147 | 0.133 | 0.046 | 179 |
| 26/12/2016 | 20:00:00 | 1601.83 | 228828 | 1.994 | 0.221 | 228147 | 210 | 149 | 0.030 | 0.075 | 0.146 | 0.132 | 0.046 | 178 |
| 26/12/2016 | 21:00:00 | 1602.83 | 229034 | 1.998 | 0.219 | 228352 | 205 | 146 | 0.030 | 0.075 | 0.144 | 0.129 | 0.046 | 175 |
| 26/12/2016 | 22:00:00 | 1603.83 | 229236 | 1.999 | 0.218 | 228553 | 201 | 145 | 0.030 | 0.075 | 0.143 | 0.128 | 0.046 | 174 |
| 26/12/2016 | 23:00:00 | 1604.83 | 229434 | 2.002 | 0.217 | 228751 | 198 | 144 | 0.030 | 0.075 | 0.142 | 0.126 | 0.046 | 172 |
| 27/12/2016 | 00:00:00 | 1605.83 | 229628 | 2.002 | 0.217 | 228944 | 193 | 144 | 0.030 | 0.075 | 0.142 | 0.126 | 0.046 | 172 |
| 27/12/2016 | 01:00:00 | 1606.83 | 229819 | 1.997 | 0.214 | 229134 | 190 | 141 | 0.030 | 0.075 | 0.139 | 0.122 | 0.045 | 168 |
| 27/12/2016 | 02:00:00 | 1607.83 | 230006 | 2.002 | 0.213 | 229321 | 187 | 140 | 0.030 | 0.075 | 0.138 | 0.121 | 0.045 | 166 |
| 27/12/2016 | 03:00:00 | 1608.83 | 230190 | 2.002 | 0.212 | 229504 | 183 | 139 | 0.030 | 0.075 | 0.137 | 0.120 | 0.045 | 165 |
| 27/12/2016 | 04:00:00 | 1609.83 | 230371 | 2.001 | 0.211 | 229685 | 181 | 138 | 0.030 | 0.075 | 0.136 | 0.118 | 0.045 | 163 |
| 27/12/2016 | 05:00:00 | 1610.83 | 230550 | 1.998 | 0.21 | 229863 | 178 | 137 | 0.030 | 0.075 | 0.135 | 0.117 | 0.045 | 162 |
| 27/12/2016 | 06:00:00 | 1611.83 | 230725 | 2 | 0.207 | 230038 | 175 | 134 | 0.030 | 0.075 | 0.132 | 0.113 | 0.045 | 158 |
| 27/12/2016 | 07:00:00 | 1612.83 | 230898 | 1.998 | 0.206 | 230210 | 172 | 133 | 0.030 | 0.075 | 0.131 | 0.112 | 0.044 | 156 |
| 27/12/2016 | 08:00:00 | 1613.83 | 231068 | 2.001 | 0.205 | 230380 | 170 | 133 | 0.030 | 0.075 | 0.130 | 0.111 | 0.044 | 155 |
| 27/12/2016 | 09:00:00 | 1614.83 | 231236 | 2.001 | 0.206 | 230547 | 167 | 133 | 0.030 | 0.075 | 0.131 | 0.112 | 0.044 | 156 |
| 27/12/2016 | 10:00:00 | 1615.83 | 231402 | 1.996 | 0.203 | 230713 | 166 | 131 | 0.030 | 0.075 | 0.128 | 0.108 | 0.044 | 152 |
| 27/12/2016 | 11:00:00 | 1616.83 | 231566 | 1.997 | 0.201 | 230876 | 163 | 129 | 0.030 | 0.075 | 0.126 | 0.106 | 0.044 | 150 |
| 27/12/2016 | 12:00:00 | 1617.83 | 231727 | 1.996 | 0.201 | 231036 | 160 | 129 | 0.030 | 0.075 | 0.126 | 0.106 | 0.044 | 150 |
| 27/12/2016 | 13:00:00 | 1618.83 | 231886 | 1.996 | 0.2 | 231195 | 159 | 128 | 0.030 | 0.075 | 0.125 | 0.104 | 0.044 | 148 |
| 27/12/2016 | 14:00:00 | 1619.83 | 232044 | 2.001 | 0.198 | 231352 | 157 | 126 | 0.030 | 0.075 | 0.123 | 0.10 | | |

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|------------|----------|---------|--------|-------|-------|--------|-----|-----|-------|-------|-------|-------|-------|-----|
| 28/12/2016 | 06:00:00 | 1635.83 | 234328 | 2.003 | 0.185 | 233629 | 130 | 115 | 0.030 | 0.075 | 0.110 | 0.086 | 0.042 | 128 |
| 28/12/2016 | 07:00:00 | 1636.83 | 234457 | 1.998 | 0.184 | 233758 | 129 | 114 | 0.030 | 0.075 | 0.109 | 0.085 | 0.042 | 127 |
| 28/12/2016 | 08:00:00 | 1637.83 | 234585 | 2.001 | 0.182 | 233886 | 128 | 112 | 0.030 | 0.075 | 0.107 | 0.083 | 0.042 | 124 |
| 28/12/2016 | 09:00:00 | 1638.83 | 234711 | 2.002 | 0.181 | 234011 | 125 | 112 | 0.030 | 0.075 | 0.106 | 0.082 | 0.042 | 123 |
| 28/12/2016 | 10:00:00 | 1639.83 | 234836 | 1.999 | 0.181 | 234136 | 125 | 111 | 0.030 | 0.075 | 0.105 | 0.080 | 0.042 | 122 |
| 28/12/2016 | 11:00:00 | 1640.83 | 234959 | 1.995 | 0.18 | 234259 | 123 | 110 | 0.030 | 0.075 | 0.104 | 0.079 | 0.041 | 121 |
| 28/12/2016 | 12:00:00 | 1641.83 | 235081 | 2.002 | 0.179 | 234381 | 122 | 110 | 0.030 | 0.075 | 0.104 | 0.079 | 0.041 | 121 |
| 28/12/2016 | 13:00:00 | 1642.83 | 235202 | 1.998 | 0.179 | 234501 | 120 | 109 | 0.030 | 0.075 | 0.103 | 0.078 | 0.041 | 119 |
| 28/12/2016 | 14:00:00 | 1643.83 | 235322 | 2.002 | 0.179 | 234621 | 120 | 108 | 0.030 | 0.075 | 0.101 | 0.076 | 0.041 | 117 |
| 28/12/2016 | 15:00:00 | 1644.83 | 235441 | 1.997 | 0.178 | 234739 | 118 | 107 | 0.030 | 0.075 | 0.100 | 0.075 | 0.041 | 116 |
| 28/12/2016 | 16:00:00 | 1645.83 | 235558 | 1.997 | 0.176 | 234856 | 117 | 107 | 0.030 | 0.075 | 0.100 | 0.075 | 0.041 | 116 |
| 28/12/2016 | 17:00:00 | 1646.83 | 235674 | 1.992 | 0.175 | 234972 | 116 | 107 | 0.030 | 0.075 | 0.100 | 0.075 | 0.041 | 116 |
| 28/12/2016 | 18:00:00 | 1647.83 | 235789 | 2.003 | 0.175 | 235086 | 114 | 106 | 0.030 | 0.075 | 0.099 | 0.074 | 0.041 | 114 |
| 28/12/2016 | 19:00:00 | 1648.83 | 235901 | 1.998 | 0.174 | 235198 | 112 | 105 | 0.030 | 0.075 | 0.098 | 0.072 | 0.041 | 113 |
| 28/12/2016 | 20:00:00 | 1649.83 | 236013 | 2.001 | 0.173 | 235309 | 111 | 105 | 0.030 | 0.075 | 0.098 | 0.072 | 0.041 | 113 |
| 28/12/2016 | 21:00:00 | 1650.83 | 236122 | 2.002 | 0.173 | 235419 | 110 | 104 | 0.030 | 0.075 | 0.096 | 0.070 | 0.041 | 111 |
| 28/12/2016 | 22:00:00 | 1651.83 | 236231 | 2.003 | 0.171 | 235527 | 108 | 104 | 0.030 | 0.075 | 0.096 | 0.070 | 0.041 | 111 |
| 28/12/2016 | 23:00:00 | 1652.83 | 236338 | 2.001 | 0.171 | 235634 | 107 | 103 | 0.030 | 0.075 | 0.095 | 0.069 | 0.040 | 110 |
| 29/12/2016 | 00:00:00 | 1653.83 | 236444 | 2.002 | 0.17 | 235740 | 106 | 103 | 0.030 | 0.075 | 0.095 | 0.069 | 0.040 | 110 |
| 29/12/2016 | 01:00:00 | 1654.83 | 236549 | 2.007 | 0.17 | 235844 | 104 | 102 | 0.030 | 0.075 | 0.092 | 0.066 | 0.040 | 106 |
| 29/12/2016 | 02:00:00 | 1655.83 | 236652 | 1.998 | 0.169 | 235947 | 103 | 101 | 0.030 | 0.075 | 0.092 | 0.066 | 0.040 | 106 |
| 29/12/2016 | 03:00:00 | 1656.83 | 236755 | 1.998 | 0.168 | 236049 | 102 | 101 | 0.030 | 0.075 | 0.092 | 0.066 | 0.040 | 106 |
| 29/12/2016 | 04:00:00 | 1657.83 | 236856 | 1.998 | 0.167 | 236150 | 101 | 101 | 0.030 | 0.075 | 0.092 | 0.066 | 0.040 | 106 |
| 29/12/2016 | 05:00:00 | 1658.83 | 236956 | 1.997 | 0.167 | 236250 | 100 | 101 | 0.030 | 0.075 | 0.092 | 0.066 | 0.040 | 106 |
| 29/12/2016 | 06:00:00 | 1659.83 | 237055 | 2.002 | 0.167 | 236349 | 99 | 100 | 0.030 | 0.075 | 0.091 | 0.065 | 0.040 | 105 |
| 29/12/2016 | 07:00:00 | 1660.83 | 237153 | 1.998 | 0.166 | 236447 | 98 | 100 | 0.030 | 0.075 | 0.091 | 0.065 | 0.040 | 105 |
| 29/12/2016 | 08:00:00 | 1661.83 | 237251 | 1.998 | 0.166 | 236544 | 97 | 100 | 0.030 | 0.075 | 0.091 | 0.065 | 0.040 | 105 |
| 29/12/2016 | 09:00:00 | 1662.83 | 237347 | 1.997 | 0.166 | 236640 | 96 | 99 | 0.030 | 0.075 | 0.089 | 0.063 | 0.040 | 102 |
| 29/12/2016 | 10:00:00 | 1663.83 | 237443 | 1.995 | 0.164 | 236736 | 96 | 99 | 0.030 | 0.075 | 0.089 | 0.063 | 0.040 | 102 |
| 29/12/2016 | 11:00:00 | 1664.83 | 237538 | 2.001 | 0.164 | 236830 | 94 | 98 | 0.030 | 0.075 | 0.088 | 0.062 | 0.040 | 101 |
| 29/12/2016 | 12:00:00 | 1665.83 | 237632 | 2.006 | 0.163 | 236924 | 94 | 98 | 0.030 | 0.075 | 0.088 | 0.062 | 0.040 | 101 |
| 29/12/2016 | 13:00:00 | 1666.83 | 237725 | 1.996 | 0.163 | 237017 | 93 | 98 | 0.030 | 0.075 | 0.087 | 0.061 | 0.039 | 100 |
| 29/12/2016 | 14:00:00 | 1667.83 | 237818 | 1.998 | 0.162 | 237109 | 92 | 97 | 0.030 | 0.075 | 0.086 | 0.060 | 0.039 | 99 |
| 29/12/2016 | 15:00:00 | 1668.83 | 237909 | 2.001 | 0.162 | 237200 | 91 | 97 | 0.030 | 0.075 | 0.086 | 0.060 | 0.039 | 99 |
| 29/12/2016 | 16:00:00 | 1669.83 | 237999 | 2.001 | 0.161 | 237290 | 90 | 97 | 0.030 | 0.075 | 0.086 | 0.060 | 0.039 | 99 |
| 29/12/2016 | 17:00:00 | 1670.83 | 238089 | 1.996 | 0.161 | 237380 | 90 | 96 | 0.030 | 0.075 | 0.086 | 0.060 | 0.039 | 99 |
| 29/12/2016 | 18:00:00 | 1671.83 | 238177 | 2.001 | 0.161 | 237468 | 88 | 96 | 0.030 | 0.075 | 0.085 | 0.059 | 0.039 | 98 |
| 29/12/2016 | 19:00:00 | 1672.83 | 238265 | 1.996 | 0.16 | 237555 | 87 | 95 | 0.030 | 0.075 | 0.083 | 0.056 | 0.039 | 95 |
| 29/12/2016 | 20:00:00 | 1673.83 | 238351 | 1.995 | 0.158 | 237641 | 86 | 95 | 0.030 | 0.075 | 0.083 | 0.056 | 0.039 | 95 |
| 29/12/2016 | 21:00:00 | 1674.83 | 238436 | 2.001 | 0.158 | 237726 | 85 | 94 | 0.030 | 0.075 | 0.082 | 0.055 | 0.039 | 94 |
| 29/12/2016 | 22:00:00 | 1675.83 | 238521 | 1.997 | 0.157 | 237810 | 84 | 94 | 0.030 | 0.075 | 0.082 | 0.055 | 0.039 | 94 |
| 29/12/2016 | 23:00:00 | 1676.84 | 238604 | 2 | 0.157 | 237894 | 84 | 94 | 0.030 | 0.075 | 0.081 | 0.054 | 0.039 | 93 |
| 30/12/2016 | 00:00:00 | 1677.84 | 238687 | 2.002 | 0.156 | 237977 | 83 | 94 | 0.030 | 0.075 | 0.081 | 0.054 | 0.039 | 93 |
| 30/12/2016 | 01:00:00 | 1678.84 | 238770 | 2 | 0.156 | 238059 | 82 | 94 | 0.030 | 0.075 | 0.081 | 0.054 | 0.039 | 93 |
| 30/12/2016 | 02:00:00 | 1679.84 | 238851 | 1.997 | 0.156 | 238140 | 81 | 93 | 0.030 | 0.075 | 0.080 | 0.053 | 0.039 | 92 |
| 30/12/2016 | 03:00:00 | 1680.84 | 238932 | 2.001 | 0.155 | 238221 | 81 | 93 | 0.030 | 0.075 | 0.079 | 0.052 | 0.038 | 91 |
| 30/12/2016 | 04:00:00 | 1681.84 | 239012 | 2.001 | 0.154 | 238300 | 79 | 93 | 0.030 | 0.075 | 0.079 | 0.052 | 0.038 | 91 |
| 30/12/2016 | 05:00:00 | 1682.84 | 239091 | 1.995 | 0.154 | 238379 | 79 | 91 | 0.030 | 0.075 | 0.077 | 0.050 | 0.038 | 89 |
| 30/12/2016 | 06:00:00 | 1683.84 | 239169 | 2.005 | 0.152 | 238457 | 78 | 91 | 0.030 | 0.075 | 0.077 | 0.050 | 0.038 | 89 |
| 30/12/2016 | 07:00:00 | 1684.84 | 239246 | 2.002 | 0.152 | 238534 | 77 | 91 | 0.030 | 0.075 | 0.077 | 0.050 | 0.038 | 89 |
| 30/12/2016 | 08:00:00 | 1685.84 | 239323 | 2.001 | 0.152 | 238610 | 76 | 91 | 0.030 | 0.075 | 0.077 | 0.050 | 0.038 | 89 |
| 30/12/2016 | 09:00:00 | 1686.84 | 239398 | 2.006 | 0.152 | 238686 | 76 | 91 | 0.030 | 0.075 | 0.076 | 0.049 | 0.038 | 88 |
| 30/12/2016 | 10:00:00 | 1687.84 | 239473 | 2.002 | 0.151 | 238760 | 74 | 90 | 0.030 | 0.075 | 0.075 | 0.049 | 0.038 | 86 |
| 30/12/2016 | 11:00:00 | 1688.84 | 239547 | 2.001 | 0.15 | 238834 | 74 | 90 | 0.030 | 0.075 | 0.075 | 0.049 | 0.038 | 86 |
| 30/12/2016 | 12:00:00 | 1689.84 | 239620 | 1.997 | 0.15 | 238907 | 73 | 90 | 0.030 | 0.075 | 0.074 | 0.048 | 0.038 | 85 |
| 30/12/2016 | 13:00:00 | 1690.84 | 239693 | 2.005 | 0.15 | 238979 | 72 | 90 | 0.030 | 0.075 | 0.074 | 0.048 | 0.038 | 85 |
| 30/12/2016 | 14:00:00 | 1691.84 | 239765 | 2.002 | 0.149 | 239051 | 72 | 89 | 0.030 | 0.075 | 0.073 | 0.047 | 0.038 | 84 |
| 30/12/2016 | 15:00:00 | 1692.84 | 239836 | 2.003 | 0.149 | 239122 | 71 | 88 | 0.030 | 0.075 | 0.073 | 0.047 | 0.038 | 84 |
| 30/12/2016 | 16:00:00 | 1693.84 | 239907 | 1.996 | 0.148 | 239193 | 71 | 88 | 0.030 | 0.075 | 0.071 | 0.045 | 0.037 | 82 |
| 30/12/2016 | 17:00:00 | 1694.84 | 239977 | 2.003 | 0.146 | 239262 | 69 | 88 | 0.030 | 0.075 | 0.071 | 0.045 | 0.037 | 82 |
| 30/12/2016 | 18:00:00 | 1695.84 | 240046 | 2.001 | 0.148 | 239331 | 69 | 87 | 0.030 | 0.075 | 0.070 | 0.044 | 0.037 | 81 |
| 30/12/2016 | 19:00:00 | 1696.84 | 240114 | 2 | 0.148 | 239399 | 68 | 87 | 0.030 | 0.075 | 0.070 | 0.044 | 0.037 | 81 |
| 30/12/2016 | 20:00:00 | 1697.84 | 240181 | 1.998 | 0.146 | 239467 | 68 | 87 | 0.030 | 0.075 | 0.070 | 0.044 | 0.037 | 81 |
| 30/12/2016 | 21:00:00 | 1698.84 | 240249 | 2.005 | 0.146 | 239534 | 67 | 87 | 0.030 | 0.075 | 0.070 | 0.044 | 0.037 | 81 |
| 30/12/2016 | 22:00:00 | 1699.84 | 240315 | 1.999 | 0.146 | 239600 | 66 | 87 | 0.030 | 0.075 | 0.070 | 0.044 | 0.037 | 81 |
| 30/12/2016 | 23:00:00 | 1700.84 | 240381 | 2 | 0.145 | 239666 | 66 | 87 | 0.030 | 0.075 | 0.070 | 0.044 | 0.037 | 81 |
| 31/12/2016 | 00:00:00 | 1701.84 | 240446 | 2 | 0.145 | 239731 | 65 | 87 | 0.030 | 0.075 | 0.070 | 0.044 | 0.037 | 81 |
| 31/12/2016 | 01:00:00 | 1702.84 | 240510 | 1.999 | 0.145 | 239795 | 64 | 87 | 0.030 | 0.075 | 0.069 | 0.043 | 0.037 | 80 |
| 31/12/2016 | 02:00:00 | 1703.84 | 240574 | 2.002 | 0.144 | 239858 | 63 | 87 | 0.030 | 0.075 | 0.069 | 0.043 | 0.037 | 80 |
| 31/12/2016 | 03:00:00 | 1704.84 | 240636 | 2.001 | 0.144 | 239920 | 62 | 86 | 0.030 | 0.075 | 0.068 | 0.042 | 0.037 | 79 |
| 31/12/2016 | 04:00:00 | 1705.84 | 240698 | 2 | 0.143 | 239982 | 62 | 86 | 0.030 | 0.075 | 0.068 | 0.042 | 0.037 | 79 |
| 31/12/2016 | 05:00:00 | 1706.84 | 240760 | 1.997 | 0.143 | 240043 | 61 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 31/12/2016 | 06:00:00 | 1707.84 | 240820 | 1.998 | 0.141 | 240104 | 61 | 85 | 0.030 | 0.075 | 0.065 | 0.039 | 0.037 | 76 |
| 31/12/2016 | 07:00:00 | 1708.84 | 240880 | 2 | 0.14 | 240164 | 60 | 85 | 0.030 | 0.075 | 0.065 | 0.039 | 0.037 | 76 |
| 31/12/2016 | 08:00:00 | 1709.84 | 240940 | 2 | 0.14 | 240223 | 59 | 85 | 0.030 | 0.075 | 0.065 | 0.039 | 0.037 | 76 |
| 31/12/2016 | 09:00:00 | 1710.84 | 240998 | 1.996 | 0.14 | 240281 | 58 | 85 | 0.030 | 0.075 | 0.065 | 0.039 | 0.037 | 76 |
| 31/12/2016 | 10:00:00 | 1711.84 | 241057 | 1.997 | 0.14 | 240340 | 59 | 85 | 0.030 | 0.075 | 0.062 | 0.036 | 0.036 | 73 |
| 31/12/2016 | 11:00:00 | 1712.84 | 241114 | 2.003 | 0.137 | 240397 | 57 | 83 | 0.030 | 0.075 | 0.062 | 0.036 | | |

| | | | | | | | | | | | | | | |
|------------|----------|---------|--------|-------|-------|--------|-----|-----|-------|-------|-------|-------|-------|-----|
| 01/01/2017 | 02:00:00 | 1727.84 | 243371 | 2.322 | 0.363 | 242648 | 387 | 364 | 0.030 | 0.075 | 0.288 | 0.365 | 0.059 | 424 |
| 01/01/2017 | 03:00:00 | 1728.84 | 243759 | 2.253 | 0.316 | 243036 | 388 | 278 | 0.030 | 0.075 | 0.241 | 0.279 | 0.055 | 335 |
| 01/01/2017 | 04:00:00 | 1729.84 | 244141 | 1.988 | 0.291 | 243416 | 380 | 238 | 0.030 | 0.075 | 0.216 | 0.237 | 0.053 | 290 |
| 01/01/2017 | 05:00:00 | 1730.84 | 244481 | 2.003 | 0.278 | 243755 | 339 | 219 | 0.030 | 0.075 | 0.203 | 0.216 | 0.052 | 268 |
| 01/01/2017 | 06:00:00 | 1731.84 | 244787 | 1.991 | 0.258 | 244060 | 305 | 192 | 0.030 | 0.075 | 0.183 | 0.185 | 0.050 | 235 |
| 01/01/2017 | 07:00:00 | 1732.84 | 245050 | 1.994 | 0.24 | 244323 | 263 | 170 | 0.030 | 0.075 | 0.165 | 0.158 | 0.048 | 206 |
| 01/01/2017 | 08:00:00 | 1733.84 | 245277 | 1.989 | 0.224 | 244549 | 226 | 152 | 0.030 | 0.075 | 0.149 | 0.136 | 0.046 | 182 |
| 01/01/2017 | 09:00:00 | 1734.84 | 245474 | 1.99 | 0.212 | 244746 | 197 | 139 | 0.030 | 0.075 | 0.137 | 0.120 | 0.045 | 165 |
| 01/01/2017 | 10:00:00 | 1735.84 | 245646 | 2.004 | 0.202 | 244918 | 172 | 130 | 0.030 | 0.075 | 0.127 | 0.107 | 0.044 | 151 |
| 01/01/2017 | 11:00:00 | 1736.84 | 245801 | 1.996 | 0.193 | 245072 | 154 | 122 | 0.030 | 0.075 | 0.118 | 0.096 | 0.043 | 139 |
| 01/01/2017 | 12:00:00 | 1737.84 | 245941 | 1.994 | 0.186 | 245212 | 140 | 116 | 0.030 | 0.075 | 0.111 | 0.087 | 0.042 | 130 |
| 01/01/2017 | 13:00:00 | 1738.84 | 246071 | 1.996 | 0.182 | 245341 | 129 | 112 | 0.030 | 0.075 | 0.107 | 0.083 | 0.042 | 124 |
| 01/01/2017 | 14:00:00 | 1739.84 | 246193 | 2.003 | 0.179 | 245463 | 122 | 110 | 0.030 | 0.075 | 0.104 | 0.079 | 0.041 | 121 |
| 01/01/2017 | 15:00:00 | 1740.84 | 246308 | 2.002 | 0.175 | 245578 | 115 | 107 | 0.030 | 0.075 | 0.100 | 0.075 | 0.041 | 116 |
| 01/01/2017 | 16:00:00 | 1741.84 | 246418 | 1.997 | 0.171 | 245688 | 110 | 104 | 0.030 | 0.075 | 0.096 | 0.070 | 0.041 | 111 |
| 01/01/2017 | 17:00:00 | 1742.84 | 246524 | 1.999 | 0.169 | 245793 | 105 | 103 | 0.030 | 0.075 | 0.094 | 0.068 | 0.040 | 108 |
| 01/01/2017 | 18:00:00 | 1743.84 | 246625 | 1.995 | 0.167 | 245894 | 101 | 101 | 0.030 | 0.075 | 0.092 | 0.066 | 0.040 | 106 |
| 01/01/2017 | 19:00:00 | 1744.84 | 246723 | 1.992 | 0.164 | 245991 | 97 | 99 | 0.030 | 0.075 | 0.089 | 0.063 | 0.040 | 102 |
| 01/01/2017 | 20:00:00 | 1745.84 | 246817 | 2.002 | 0.163 | 246085 | 94 | 98 | 0.030 | 0.075 | 0.088 | 0.062 | 0.040 | 101 |
| 01/01/2017 | 21:00:00 | 1746.84 | 246908 | 1.996 | 0.162 | 246176 | 91 | 98 | 0.030 | 0.075 | 0.087 | 0.061 | 0.039 | 100 |
| 01/01/2017 | 22:00:00 | 1747.84 | 246997 | 1.998 | 0.161 | 246265 | 89 | 97 | 0.030 | 0.075 | 0.086 | 0.060 | 0.039 | 99 |
| 01/01/2017 | 23:00:00 | 1748.84 | 247082 | 2.001 | 0.158 | 246350 | 85 | 95 | 0.030 | 0.075 | 0.083 | 0.056 | 0.039 | 95 |
| 02/01/2017 | 00:00:00 | 1749.84 | 247165 | 2.002 | 0.157 | 246433 | 83 | 94 | 0.030 | 0.075 | 0.082 | 0.055 | 0.039 | 94 |
| 02/01/2017 | 01:00:00 | 1750.84 | 247246 | 2.001 | 0.156 | 246514 | 81 | 94 | 0.030 | 0.075 | 0.081 | 0.054 | 0.039 | 93 |
| 02/01/2017 | 02:00:00 | 1751.84 | 247325 | 1.996 | 0.155 | 246593 | 79 | 93 | 0.030 | 0.075 | 0.080 | 0.053 | 0.039 | 92 |
| 02/01/2017 | 03:00:00 | 1752.84 | 247403 | 2.001 | 0.153 | 246670 | 77 | 92 | 0.030 | 0.075 | 0.078 | 0.051 | 0.038 | 90 |
| 02/01/2017 | 04:00:00 | 1753.84 | 247478 | 1.999 | 0.152 | 246745 | 75 | 91 | 0.030 | 0.075 | 0.077 | 0.050 | 0.038 | 89 |
| 02/01/2017 | 05:00:00 | 1754.84 | 247552 | 2.003 | 0.152 | 246819 | 74 | 91 | 0.030 | 0.075 | 0.077 | 0.050 | 0.038 | 89 |
| 02/01/2017 | 06:00:00 | 1755.84 | 247624 | 1.997 | 0.151 | 246891 | 72 | 91 | 0.030 | 0.075 | 0.076 | 0.049 | 0.038 | 88 |
| 02/01/2017 | 07:00:00 | 1756.84 | 247695 | 2.003 | 0.15 | 246961 | 70 | 90 | 0.030 | 0.075 | 0.075 | 0.049 | 0.038 | 86 |
| 02/01/2017 | 08:00:00 | 1757.84 | 247764 | 1.999 | 0.148 | 247030 | 69 | 89 | 0.030 | 0.075 | 0.073 | 0.047 | 0.038 | 84 |
| 02/01/2017 | 09:00:00 | 1758.84 | 247832 | 2.002 | 0.148 | 247099 | 69 | 89 | 0.030 | 0.075 | 0.073 | 0.047 | 0.038 | 84 |
| 02/01/2017 | 10:00:00 | 1759.84 | 247900 | 2.002 | 0.148 | 247165 | 66 | 89 | 0.030 | 0.075 | 0.073 | 0.047 | 0.038 | 84 |
| 02/01/2017 | 11:00:00 | 1760.84 | 247966 | 1.997 | 0.147 | 247231 | 66 | 88 | 0.030 | 0.075 | 0.072 | 0.046 | 0.038 | 83 |
| 02/01/2017 | 12:00:00 | 1761.84 | 248031 | 2.001 | 0.146 | 247296 | 65 | 88 | 0.030 | 0.075 | 0.071 | 0.045 | 0.037 | 82 |
| 02/01/2017 | 13:00:00 | 1762.84 | 248095 | 1.997 | 0.146 | 247360 | 64 | 88 | 0.030 | 0.075 | 0.071 | 0.045 | 0.037 | 82 |
| 02/01/2017 | 14:00:00 | 1763.84 | 248159 | 1.999 | 0.146 | 247424 | 64 | 88 | 0.030 | 0.075 | 0.071 | 0.045 | 0.037 | 82 |
| 02/01/2017 | 15:00:00 | 1764.84 | 248222 | 1.998 | 0.145 | 247487 | 63 | 87 | 0.030 | 0.075 | 0.070 | 0.044 | 0.037 | 81 |
| 02/01/2017 | 16:00:00 | 1765.84 | 248285 | 1.997 | 0.146 | 247550 | 63 | 88 | 0.030 | 0.075 | 0.071 | 0.045 | 0.037 | 82 |
| 02/01/2017 | 17:00:00 | 1766.84 | 248347 | 1.999 | 0.145 | 247612 | 62 | 87 | 0.030 | 0.075 | 0.070 | 0.044 | 0.037 | 81 |
| 02/01/2017 | 18:00:00 | 1767.84 | 248409 | 1.997 | 0.145 | 247673 | 61 | 87 | 0.030 | 0.075 | 0.070 | 0.044 | 0.037 | 81 |
| 02/01/2017 | 19:00:00 | 1768.84 | 248470 | 1.998 | 0.144 | 247734 | 61 | 87 | 0.030 | 0.075 | 0.069 | 0.043 | 0.037 | 80 |
| 02/01/2017 | 20:00:00 | 1769.84 | 248530 | 1.998 | 0.144 | 247795 | 61 | 87 | 0.030 | 0.075 | 0.069 | 0.043 | 0.037 | 80 |
| 02/01/2017 | 21:00:00 | 1770.84 | 248590 | 1.998 | 0.144 | 247855 | 60 | 87 | 0.030 | 0.075 | 0.069 | 0.043 | 0.037 | 80 |
| 02/01/2017 | 22:00:00 | 1771.84 | 248650 | 2.001 | 0.142 | 247914 | 59 | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 02/01/2017 | 23:00:00 | 1772.84 | 248709 | 2.001 | 0.142 | 247973 | 59 | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 03/01/2017 | 00:00:00 | 1773.84 | 248767 | 1.997 | 0.141 | 248031 | 58 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 03/01/2017 | 01:00:00 | 1774.84 | 248825 | 2.001 | 0.141 | 248089 | 58 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 03/01/2017 | 02:00:00 | 1775.84 | 248883 | 1.998 | 0.141 | 248146 | 57 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 03/01/2017 | 03:00:00 | 1776.84 | 248940 | 1.996 | 0.141 | 248204 | 58 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 03/01/2017 | 04:00:00 | 1777.84 | 248998 | 2.003 | 0.141 | 248261 | 57 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 03/01/2017 | 05:00:00 | 1778.84 | 249055 | 1.997 | 0.14 | 248318 | 57 | 85 | 0.030 | 0.075 | 0.065 | 0.039 | 0.037 | 76 |
| 03/01/2017 | 06:00:00 | 1779.84 | 249112 | 2.004 | 0.141 | 248375 | 57 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 03/01/2017 | 07:00:00 | 1780.84 | 249169 | 2.001 | 0.141 | 248432 | 57 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 03/01/2017 | 08:00:00 | 1781.84 | 249226 | 2 | 0.141 | 248489 | 57 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 03/01/2017 | 09:00:00 | 1782.84 | 249283 | 2.001 | 0.141 | 248545 | 56 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 03/01/2017 | 10:00:00 | 1783.84 | 249339 | 2.001 | 0.14 | 248602 | 57 | 85 | 0.030 | 0.075 | 0.065 | 0.039 | 0.037 | 76 |
| 03/01/2017 | 11:00:00 | 1784.84 | 249396 | 2.002 | 0.14 | 248658 | 56 | 85 | 0.030 | 0.075 | 0.065 | 0.039 | 0.037 | 76 |
| 03/01/2017 | 12:00:00 | 1785.84 | 249453 | 2 | 0.141 | 248715 | 57 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 03/01/2017 | 13:00:00 | 1786.84 | 249511 | 1.997 | 0.141 | 248773 | 58 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 03/01/2017 | 14:00:00 | 1787.84 | 249569 | 2 | 0.142 | 248831 | 58 | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 03/01/2017 | 15:00:00 | 1788.84 | 249628 | 2 | 0.142 | 248890 | 59 | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 03/01/2017 | 16:00:00 | 1789.84 | 249687 | 2 | 0.141 | 248949 | 59 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 03/01/2017 | 17:00:00 | 1790.84 | 249746 | 2.001 | 0.141 | 249008 | 59 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 03/01/2017 | 18:00:00 | 1791.84 | 249805 | 2 | 0.141 | 249066 | 58 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 03/01/2017 | 19:00:00 | 1792.84 | 249863 | 1.997 | 0.141 | 249125 | 59 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 03/01/2017 | 20:00:00 | 1793.84 | 249921 | 2.005 | 0.14 | 249182 | 57 | 85 | 0.030 | 0.075 | 0.065 | 0.039 | 0.037 | 76 |
| 03/01/2017 | 21:00:00 | 1794.84 | 249979 | 2.004 | 0.14 | 249239 | 57 | 85 | 0.030 | 0.075 | 0.065 | 0.039 | 0.037 | 76 |
| 03/01/2017 | 22:00:00 | 1795.84 | 250035 | 1.997 | 0.14 | 249296 | 57 | 85 | 0.030 | 0.075 | 0.065 | 0.039 | 0.037 | 76 |
| 03/01/2017 | 23:00:00 | 1796.84 | 250090 | 2 | 0.139 | 249351 | 55 | 84 | 0.030 | 0.075 | 0.064 | 0.038 | 0.037 | 75 |
| 04/01/2017 | 00:00:00 | 1797.84 | 250145 | 2.003 | 0.139 | 249406 | 55 | 84 | 0.030 | 0.075 | 0.064 | 0.038 | 0.037 | 75 |
| 04/01/2017 | 01:00:00 | 1798.84 | 250199 | 1.998 | 0.137 | 249460 | 54 | 83 | 0.030 | 0.075 | 0.062 | 0.036 | 0.036 | 73 |
| 04/01/2017 | 02:00:00 | 1799.84 | 250252 | 1.998 | 0.139 | 249513 | 53 | 84 | 0.030 | 0.075 | 0.064 | 0.038 | 0.037 | 75 |
| 04/01/2017 | 03:00:00 | 1800.84 | 250305 | 2.001 | 0.137 | 249565 | 52 | 83 | 0.030 | 0.075 | 0.062 | 0.036 | 0.036 | 73 |
| 04/01/2017 | 04:00:00 | 1801.84 | 250357 | 2.002 | 0.136 | 249617 | 52 | 83 | 0.030 | 0.075 | 0.061 | 0.036 | 0.036 | 72 |
| 04/01/2017 | 05:00:00 | 1802.85 | 250408 | 1.997 | 0.136 | 249668 | 51 | 83 | 0.030 | 0.075 | 0.061 | 0.036 | 0.036 | 72 |
| 04/01/2017 | 06:00:00 | 1803.85 | 250459 | 1.997 | 0.136 | 249719 | 51 | 83 | 0.030 | 0.075 | 0.061 | 0.036 | 0.036 | 72 |
| 04/01/2017 | 07:00:00 | 1804.85 | 250509 | 2.001 | 0.136 | 249768 | 49 | 83 | 0.030 | 0.075 | 0.061 | 0.036 | 0.036 | 72 |
| 0 | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | |
|------------|----------|---------|--------|-------|-------|--------|-----|-----|-------|-------|-------|-------|-------|-----|
| 04/01/2017 | 22:00:00 | 1818.65 | 251112 | 2.346 | 0.128 | 250371 | 0 | 79 | 0.030 | 0.075 | 0.053 | 0.029 | 0.023 | 51 |
| 04/01/2017 | 23:00:00 | 1818.65 | 251112 | 2.346 | 0.129 | 250371 | 0 | 79 | 0.030 | 0.075 | 0.054 | 0.030 | 0.023 | 52 |
| 05/01/2017 | 00:00:00 | 1818.65 | 251112 | 2.346 | 0.128 | 250371 | 0 | 79 | 0.030 | 0.075 | 0.053 | 0.029 | 0.023 | 51 |
| 05/01/2017 | 01:00:00 | 1818.65 | 251112 | 2.345 | 0.128 | 250371 | 0 | 79 | 0.030 | 0.075 | 0.053 | 0.029 | 0.023 | 51 |
| 05/01/2017 | 02:00:00 | 1818.65 | 251112 | 2.345 | 0.127 | 250371 | 0 | 78 | 0.030 | 0.075 | 0.052 | 0.028 | 0.022 | 50 |
| 05/01/2017 | 03:00:00 | 1818.65 | 251112 | 2.345 | 0.126 | 250371 | 0 | 78 | 0.030 | 0.075 | 0.051 | 0.027 | 0.022 | 49 |
| 05/01/2017 | 04:00:00 | 1818.65 | 251112 | 2.344 | 0.126 | 250371 | 0 | 78 | 0.030 | 0.075 | 0.051 | 0.027 | 0.022 | 49 |
| 05/01/2017 | 05:00:00 | 1818.65 | 251112 | 2.344 | 0.126 | 250371 | 0 | 78 | 0.030 | 0.075 | 0.051 | 0.027 | 0.022 | 49 |
| 05/01/2017 | 06:00:00 | 1818.65 | 251112 | 2.344 | 0.126 | 250371 | 0 | 78 | 0.030 | 0.075 | 0.051 | 0.027 | 0.022 | 49 |
| 05/01/2017 | 07:00:00 | 1818.65 | 251112 | 2.343 | 0.125 | 250371 | 0 | 77 | 0.030 | 0.075 | 0.050 | 0.026 | 0.022 | 48 |
| 05/01/2017 | 08:00:00 | 1818.65 | 251112 | 2.343 | 0.125 | 250371 | 0 | 77 | 0.030 | 0.075 | 0.050 | 0.026 | 0.022 | 48 |
| 05/01/2017 | 09:00:00 | 1818.65 | 251112 | 2.341 | 0.125 | 250371 | 0 | 77 | 0.030 | 0.075 | 0.050 | 0.026 | 0.022 | 48 |
| 05/01/2017 | 10:00:00 | 1818.65 | 251112 | 2.343 | 0.125 | 250371 | 0 | 77 | 0.030 | 0.075 | 0.050 | 0.026 | 0.022 | 48 |
| 05/01/2017 | 11:00:00 | 1818.65 | 251112 | 2.341 | 0.125 | 250371 | 0 | 77 | 0.030 | 0.075 | 0.050 | 0.026 | 0.022 | 48 |
| 05/01/2017 | 12:00:00 | 1818.65 | 251112 | 2.343 | 0.125 | 250371 | 0 | 77 | 0.030 | 0.075 | 0.050 | 0.026 | 0.022 | 48 |
| 05/01/2017 | 13:00:00 | 1818.65 | 251112 | 2.344 | 0.125 | 250371 | 0 | 77 | 0.030 | 0.075 | 0.050 | 0.026 | 0.022 | 48 |
| 05/01/2017 | 14:00:00 | 1818.65 | 251112 | 2.343 | 0.124 | 250371 | 0 | 77 | 0.030 | 0.075 | 0.049 | 0.026 | 0.022 | 47 |
| 05/01/2017 | 15:00:00 | 1818.65 | 251112 | 2.343 | 0.124 | 250371 | 0 | 77 | 0.030 | 0.075 | 0.049 | 0.026 | 0.022 | 47 |
| 05/01/2017 | 16:00:00 | 1818.65 | 251112 | 2.343 | 0.124 | 250371 | 0 | 77 | 0.030 | 0.075 | 0.049 | 0.026 | 0.022 | 47 |
| 05/01/2017 | 17:00:00 | 1818.65 | 251112 | 2.343 | 0.123 | 250371 | 0 | 77 | 0.030 | 0.075 | 0.048 | 0.025 | 0.021 | 46 |
| 05/01/2017 | 18:00:00 | 1818.65 | 251112 | 2.342 | 0.123 | 250371 | 0 | 77 | 0.030 | 0.075 | 0.048 | 0.025 | 0.021 | 46 |
| 05/01/2017 | 19:00:00 | 1818.65 | 251112 | 2.341 | 0.123 | 250371 | 0 | 77 | 0.030 | 0.075 | 0.048 | 0.025 | 0.021 | 46 |
| 05/01/2017 | 20:00:00 | 1818.65 | 251112 | 2.343 | 0.123 | 250371 | 0 | 77 | 0.030 | 0.075 | 0.048 | 0.025 | 0.021 | 46 |
| 05/01/2017 | 21:00:00 | 1818.65 | 251112 | 2.341 | 0.121 | 250371 | 0 | 76 | 0.030 | 0.075 | 0.046 | 0.023 | 0.021 | 44 |
| 05/01/2017 | 22:00:00 | 1818.65 | 251112 | 2.341 | 0.123 | 250371 | 0 | 77 | 0.030 | 0.075 | 0.048 | 0.025 | 0.021 | 46 |
| 05/01/2017 | 23:00:00 | 1818.65 | 251112 | 2.342 | 0.123 | 250371 | 0 | 77 | 0.030 | 0.075 | 0.048 | 0.025 | 0.021 | 46 |
| 06/01/2017 | 00:00:00 | 1818.65 | 251112 | 2.341 | 0.123 | 250371 | 0 | 77 | 0.030 | 0.075 | 0.048 | 0.025 | 0.021 | 46 |
| 06/01/2017 | 01:00:00 | 1818.65 | 251112 | 2.341 | 0.121 | 250371 | 0 | 76 | 0.030 | 0.075 | 0.046 | 0.023 | 0.021 | 44 |
| 06/01/2017 | 02:00:00 | 1818.65 | 251112 | 2.342 | 0.121 | 250371 | 0 | 76 | 0.030 | 0.075 | 0.046 | 0.023 | 0.021 | 44 |
| 06/01/2017 | 03:00:00 | 1818.65 | 251112 | 2.341 | 0.122 | 250371 | 0 | 76 | 0.030 | 0.075 | 0.047 | 0.024 | 0.021 | 45 |
| 06/01/2017 | 04:00:00 | 1818.65 | 251112 | 2.342 | 0.121 | 250371 | 0 | 76 | 0.030 | 0.075 | 0.046 | 0.023 | 0.021 | 44 |
| 06/01/2017 | 05:00:00 | 1818.65 | 251112 | 2.342 | 0.122 | 250371 | 0 | 76 | 0.030 | 0.075 | 0.047 | 0.024 | 0.021 | 45 |
| 06/01/2017 | 06:00:00 | 1818.65 | 251112 | 2.343 | 0.121 | 250371 | 0 | 76 | 0.030 | 0.075 | 0.046 | 0.023 | 0.021 | 44 |
| 06/01/2017 | 07:00:00 | 1818.65 | 251112 | 2.343 | 0.123 | 250371 | 0 | 77 | 0.030 | 0.075 | 0.048 | 0.025 | 0.021 | 46 |
| 06/01/2017 | 08:00:00 | 1818.65 | 251112 | 2.344 | 0.123 | 250371 | 0 | 77 | 0.030 | 0.075 | 0.048 | 0.025 | 0.021 | 46 |
| 06/01/2017 | 09:00:00 | 1818.65 | 251112 | 2.344 | 0.124 | 250371 | 0 | 77 | 0.030 | 0.075 | 0.049 | 0.026 | 0.022 | 47 |
| 06/01/2017 | 10:00:00 | 1818.65 | 251112 | 2.344 | 0.123 | 250371 | 0 | 77 | 0.030 | 0.075 | 0.048 | 0.025 | 0.021 | 46 |
| 06/01/2017 | 11:00:00 | 1818.65 | 251112 | 2.344 | 0.124 | 250371 | 0 | 77 | 0.030 | 0.075 | 0.049 | 0.026 | 0.022 | 47 |
| 06/01/2017 | 12:00:00 | 1818.65 | 251112 | 2.344 | 0.124 | 250371 | 0 | 77 | 0.030 | 0.075 | 0.049 | 0.026 | 0.022 | 47 |
| 06/01/2017 | 13:00:00 | 1818.65 | 251112 | 2.345 | 0.125 | 250371 | 0 | 77 | 0.030 | 0.075 | 0.050 | 0.026 | 0.022 | 48 |
| 06/01/2017 | 14:00:00 | 1818.65 | 251112 | 2.345 | 0.124 | 250371 | 0 | 77 | 0.030 | 0.075 | 0.049 | 0.026 | 0.022 | 47 |
| 06/01/2017 | 15:00:00 | 1818.65 | 251112 | 2.351 | 0.13 | 250371 | 0 | 80 | 0.030 | 0.075 | 0.055 | 0.030 | 0.023 | 53 |
| 06/01/2017 | 16:00:00 | 1818.65 | 251112 | 2.351 | 0.131 | 250371 | 0 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.023 | 54 |
| 06/01/2017 | 17:00:00 | 1818.65 | 251112 | 2.351 | 0.13 | 250371 | 0 | 80 | 0.030 | 0.075 | 0.055 | 0.030 | 0.023 | 53 |
| 06/01/2017 | 18:00:00 | 1818.65 | 251112 | 2.352 | 0.131 | 250371 | 0 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.023 | 54 |
| 06/01/2017 | 19:00:00 | 1818.65 | 251112 | 2.351 | 0.132 | 250371 | 0 | 81 | 0.030 | 0.075 | 0.057 | 0.032 | 0.023 | 56 |
| 06/01/2017 | 20:00:00 | 1818.65 | 251112 | 2.354 | 0.134 | 250371 | 0 | 82 | 0.030 | 0.075 | 0.059 | 0.034 | 0.024 | 58 |
| 06/01/2017 | 21:00:00 | 1818.65 | 251112 | 2.354 | 0.132 | 250371 | 0 | 81 | 0.030 | 0.075 | 0.057 | 0.032 | 0.023 | 56 |
| 06/01/2017 | 22:00:00 | 1818.65 | 251112 | 2.352 | 0.132 | 250371 | 0 | 81 | 0.030 | 0.075 | 0.057 | 0.032 | 0.023 | 56 |
| 06/01/2017 | 23:00:00 | 1818.77 | 251118 | 2.16 | 0.136 | 250377 | 6 | 83 | 0.030 | 0.075 | 0.061 | 0.036 | 0.036 | 72 |
| 07/01/2017 | 00:00:00 | 1819.77 | 251172 | 2.003 | 0.141 | 250430 | 53 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 07/01/2017 | 01:00:00 | 1820.77 | 251238 | 2.002 | 0.152 | 250496 | 66 | 91 | 0.030 | 0.075 | 0.077 | 0.050 | 0.038 | 89 |
| 07/01/2017 | 02:00:00 | 1821.77 | 251327 | 2.006 | 0.169 | 250585 | 89 | 103 | 0.030 | 0.075 | 0.094 | 0.068 | 0.040 | 108 |
| 07/01/2017 | 03:00:00 | 1822.77 | 251442 | 1.997 | 0.179 | 250700 | 115 | 110 | 0.030 | 0.075 | 0.104 | 0.079 | 0.041 | 121 |
| 07/01/2017 | 04:00:00 | 1823.77 | 251562 | 1.997 | 0.178 | 250819 | 119 | 109 | 0.030 | 0.075 | 0.103 | 0.078 | 0.041 | 119 |
| 07/01/2017 | 05:00:00 | 1824.77 | 251676 | 1.996 | 0.172 | 250933 | 114 | 105 | 0.030 | 0.075 | 0.097 | 0.071 | 0.041 | 112 |
| 07/01/2017 | 06:00:00 | 1825.77 | 251779 | 2.001 | 0.166 | 251035 | 102 | 100 | 0.030 | 0.075 | 0.091 | 0.065 | 0.040 | 105 |
| 07/01/2017 | 07:00:00 | 1826.77 | 251872 | 1.997 | 0.161 | 251129 | 94 | 97 | 0.030 | 0.075 | 0.086 | 0.060 | 0.039 | 99 |
| 07/01/2017 | 08:00:00 | 1827.77 | 251957 | 1.997 | 0.156 | 251214 | 85 | 94 | 0.030 | 0.075 | 0.081 | 0.054 | 0.039 | 93 |
| 07/01/2017 | 09:00:00 | 1828.77 | 252035 | 1.997 | 0.152 | 251291 | 77 | 91 | 0.030 | 0.075 | 0.077 | 0.050 | 0.038 | 89 |
| 07/01/2017 | 10:00:00 | 1829.77 | 252107 | 1.998 | 0.149 | 251363 | 72 | 90 | 0.030 | 0.075 | 0.074 | 0.048 | 0.038 | 85 |
| 07/01/2017 | 11:00:00 | 1830.77 | 252176 | 2 | 0.147 | 251431 | 68 | 88 | 0.030 | 0.075 | 0.072 | 0.046 | 0.038 | 83 |
| 07/01/2017 | 12:00:00 | 1831.77 | 252242 | 1.998 | 0.146 | 251497 | 66 | 88 | 0.030 | 0.075 | 0.071 | 0.045 | 0.037 | 82 |
| 07/01/2017 | 13:00:00 | 1832.77 | 252305 | 1.998 | 0.144 | 251561 | 64 | 87 | 0.030 | 0.075 | 0.069 | 0.043 | 0.037 | 80 |
| 07/01/2017 | 14:00:00 | 1833.77 | 252366 | 2.001 | 0.144 | 251622 | 61 | 87 | 0.030 | 0.075 | 0.069 | 0.043 | 0.037 | 80 |
| 07/01/2017 | 15:00:00 | 1834.77 | 252426 | 2.002 | 0.143 | 251682 | 60 | 86 | 0.030 | 0.075 | 0.068 | 0.042 | 0.037 | 79 |
| 07/01/2017 | 16:00:00 | 1835.77 | 252485 | 2.001 | 0.141 | 251740 | 58 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 07/01/2017 | 17:00:00 | 1836.77 | 252542 | 1.998 | 0.14 | 251797 | 57 | 85 | 0.030 | 0.075 | 0.065 | 0.039 | 0.037 | 76 |
| 07/01/2017 | 18:00:00 | 1837.77 | 252597 | 1.998 | 0.139 | 251852 | 55 | 84 | 0.030 | 0.075 | 0.064 | 0.038 | 0.037 | 75 |
| 07/01/2017 | 19:00:00 | 1838.77 | 252650 | 2.002 | 0.137 | 251905 | 53 | 83 | 0.030 | 0.075 | 0.062 | 0.036 | 0.036 | 73 |
| 07/01/2017 | 20:00:00 | 1839.78 | 252701 | 2.002 | 0.136 | 251956 | 51 | 83 | 0.030 | 0.075 | 0.061 | 0.036 | 0.036 | 72 |
| 07/01/2017 | 21:00:00 | 1840.78 | 252751 | 2 | 0.135 | 252005 | 49 | 82 | 0.030 | 0.075 | 0.060 | 0.035 | 0.036 | 71 |
| 07/01/2017 | 22:00:00 | 1841.78 | 252799 | 2.002 | 0.135 | 252054 | 49 | 82 | 0.030 | 0.075 | 0.060 | 0.035 | 0.036 | 71 |
| 07/01/2017 | 23:00:00 | 1842.78 | 252849 | 1.999 | 0.136 | 252103 | 49 | 83 | 0.030 | 0.075 | 0.061 | 0.036 | 0.036 | 72 |
| 08/01/2017 | 00:00:00 | 1843.78 | 252899 | 2.002 | 0.136 | 252153 | 50 | 83 | 0.030 | 0.075 | 0.061 | 0.036 | 0.036 | 72 |
| 08/01/2017 | 01:00:00 | 1844.78 | 252950 | 2 | 0.138 | 252204 | 51 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 08/01/2017 | 02:00:00 | 1845.78 | 253002 | 2.001 | 0.136 | 252256 | 52 | 83 | 0.030 | 0.075 | 0.061 | 0.036 | 0.036 | 72 |
| 08/01/2017 | 03:00:00 | 1846.78 | 253052 | 2.003 | 0.136 | 252306 | 50 | 83 | 0.030 | 0.075 | 0.061 | 0.036 | 0.036 | 72 |
| 08/01/2017 | 04:00:00 | 1847.78 | 253102 | 2.001 | 0.135 | | | | | | | | | |

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|------------|----------|---------|--------|-------|-------|--------|-----|-----|-------|-------|-------|-------|-------|-----|
| 08/01/2017 | 18:00:00 | 1856.85 | 253495 | 2.341 | 0.125 | 252748 | 0 | 77 | 0.030 | 0.075 | 0.050 | 0.026 | 0.035 | 61 |
| 08/01/2017 | 19:00:00 | 1856.85 | 253495 | 2.343 | 0.125 | 252748 | 0 | 77 | 0.030 | 0.075 | 0.050 | 0.026 | 0.035 | 61 |
| 08/01/2017 | 20:00:00 | 1856.85 | 253495 | 2.342 | 0.125 | 252748 | 0 | 77 | 0.030 | 0.075 | 0.050 | 0.026 | 0.035 | 61 |
| 08/01/2017 | 21:00:00 | 1856.85 | 253495 | 2.342 | 0.125 | 252748 | 0 | 77 | 0.030 | 0.075 | 0.050 | 0.026 | 0.035 | 61 |
| 08/01/2017 | 22:00:00 | 1856.85 | 253495 | 2.342 | 0.125 | 252748 | 0 | 77 | 0.030 | 0.075 | 0.050 | 0.026 | 0.035 | 61 |
| 08/01/2017 | 23:00:00 | 1856.85 | 253495 | 2.343 | 0.124 | 252748 | 0 | 77 | 0.030 | 0.075 | 0.049 | 0.026 | 0.035 | 60 |
| 09/01/2017 | 00:00:00 | 1856.85 | 253495 | 2.342 | 0.125 | 252748 | 0 | 77 | 0.030 | 0.075 | 0.050 | 0.026 | 0.035 | 61 |
| 09/01/2017 | 01:00:00 | 1856.85 | 253495 | 2.342 | 0.124 | 252748 | 0 | 77 | 0.030 | 0.075 | 0.049 | 0.026 | 0.035 | 60 |
| 09/01/2017 | 02:00:00 | 1856.85 | 253495 | 2.343 | 0.125 | 252748 | 0 | 77 | 0.030 | 0.075 | 0.050 | 0.026 | 0.035 | 61 |
| 09/01/2017 | 03:00:00 | 1856.85 | 253495 | 2.342 | 0.124 | 252748 | 0 | 77 | 0.030 | 0.075 | 0.049 | 0.026 | 0.035 | 60 |
| 09/01/2017 | 04:00:00 | 1856.85 | 253495 | 2.343 | 0.127 | 252748 | 0 | 78 | 0.030 | 0.075 | 0.052 | 0.028 | 0.035 | 63 |
| 09/01/2017 | 05:00:00 | 1856.85 | 253495 | 2.348 | 0.13 | 252748 | 0 | 80 | 0.030 | 0.075 | 0.055 | 0.030 | 0.035 | 66 |
| 09/01/2017 | 06:00:00 | 1856.94 | 253500 | 2.187 | 0.14 | 252753 | 5 | 85 | 0.030 | 0.075 | 0.065 | 0.039 | 0.037 | 76 |
| 09/01/2017 | 07:00:00 | 1857.94 | 253577 | 2.028 | 0.179 | 252830 | 77 | 110 | 0.030 | 0.075 | 0.104 | 0.079 | 0.041 | 121 |
| 09/01/2017 | 08:00:00 | 1858.94 | 253842 | 2.342 | 0.373 | 253094 | 264 | 384 | 0.030 | 0.075 | 0.298 | 0.384 | 0.060 | 444 |
| 09/01/2017 | 09:00:00 | 1859.94 | 254231 | 2.453 | 0.452 | 253482 | 388 | 566 | 0.030 | 0.075 | 0.377 | 0.547 | 0.066 | 613 |
| 09/01/2017 | 10:00:00 | 1860.94 | 254619 | 2.435 | 0.438 | 253870 | 388 | 530 | 0.030 | 0.075 | 0.363 | 0.517 | 0.065 | 582 |
| 09/01/2017 | 11:00:00 | 1861.94 | 255007 | 2.373 | 0.392 | 254257 | 387 | 424 | 0.030 | 0.075 | 0.317 | 0.422 | 0.061 | 483 |
| 09/01/2017 | 12:00:00 | 1862.94 | 255395 | 2.286 | 0.334 | 254645 | 388 | 309 | 0.030 | 0.075 | 0.259 | 0.311 | 0.057 | 368 |
| 09/01/2017 | 13:00:00 | 1863.72 | 255692 | 2.506 | 0.294 | 254941 | 296 | 243 | 0.030 | 0.075 | 0.219 | 0.242 | 0.053 | 295 |
| 09/01/2017 | 14:00:00 | 1864.01 | 255737 | 2.246 | 0.26 | 254986 | 45 | 195 | 0.030 | 0.075 | 0.185 | 0.188 | 0.050 | 238 |
| 09/01/2017 | 15:00:00 | 1865.01 | 256002 | 1.988 | 0.237 | 255250 | 264 | 166 | 0.030 | 0.075 | 0.162 | 0.154 | 0.048 | 202 |
| 09/01/2017 | 16:00:00 | 1866.01 | 256224 | 1.998 | 0.221 | 255471 | 221 | 149 | 0.030 | 0.075 | 0.146 | 0.132 | 0.046 | 178 |
| 09/01/2017 | 17:00:00 | 1867.01 | 256415 | 2.006 | 0.207 | 255662 | 191 | 134 | 0.030 | 0.075 | 0.132 | 0.113 | 0.045 | 158 |
| 09/01/2017 | 18:00:00 | 1868.01 | 256584 | 1.998 | 0.2 | 255831 | 169 | 128 | 0.030 | 0.075 | 0.125 | 0.104 | 0.044 | 148 |
| 09/01/2017 | 19:00:00 | 1869.01 | 256737 | 1.997 | 0.191 | 255983 | 152 | 120 | 0.030 | 0.075 | 0.116 | 0.093 | 0.043 | 136 |
| 09/01/2017 | 20:00:00 | 1870.01 | 256876 | 2.001 | 0.183 | 256122 | 139 | 113 | 0.030 | 0.075 | 0.108 | 0.084 | 0.042 | 126 |
| 09/01/2017 | 21:00:00 | 1871.02 | 257006 | 2.004 | 0.18 | 256251 | 129 | 111 | 0.030 | 0.075 | 0.105 | 0.080 | 0.042 | 122 |
| 09/01/2017 | 22:00:00 | 1872.01 | 257129 | 1.992 | 0.176 | 256374 | 123 | 108 | 0.030 | 0.075 | 0.101 | 0.076 | 0.041 | 117 |
| 09/01/2017 | 23:00:00 | 1873.02 | 257247 | 2.002 | 0.173 | 256492 | 118 | 105 | 0.030 | 0.075 | 0.098 | 0.072 | 0.041 | 113 |
| 10/01/2017 | 00:00:00 | 1874.02 | 257362 | 1.994 | 0.173 | 256607 | 115 | 105 | 0.030 | 0.075 | 0.098 | 0.072 | 0.041 | 113 |
| 10/01/2017 | 01:00:00 | 1875.02 | 257483 | 2.003 | 0.183 | 256728 | 121 | 113 | 0.030 | 0.075 | 0.108 | 0.084 | 0.042 | 126 |
| 10/01/2017 | 02:00:00 | 1876.02 | 257621 | 2.002 | 0.19 | 256865 | 137 | 119 | 0.030 | 0.075 | 0.115 | 0.092 | 0.043 | 135 |
| 10/01/2017 | 03:00:00 | 1877.02 | 257763 | 1.997 | 0.186 | 257006 | 141 | 116 | 0.030 | 0.075 | 0.111 | 0.087 | 0.042 | 130 |
| 10/01/2017 | 04:00:00 | 1878.02 | 257897 | 1.998 | 0.183 | 257140 | 134 | 113 | 0.030 | 0.075 | 0.108 | 0.084 | 0.042 | 126 |
| 10/01/2017 | 05:00:00 | 1879.02 | 258024 | 1.997 | 0.179 | 257267 | 127 | 110 | 0.030 | 0.075 | 0.104 | 0.079 | 0.041 | 121 |
| 10/01/2017 | 06:00:00 | 1880.02 | 258147 | 2.002 | 0.177 | 257390 | 123 | 109 | 0.030 | 0.075 | 0.102 | 0.077 | 0.041 | 118 |
| 10/01/2017 | 07:00:00 | 1881.02 | 258269 | 1.997 | 0.178 | 257511 | 121 | 109 | 0.030 | 0.075 | 0.103 | 0.078 | 0.041 | 119 |
| 10/01/2017 | 08:00:00 | 1882.02 | 258388 | 2.001 | 0.178 | 257630 | 119 | 109 | 0.030 | 0.075 | 0.103 | 0.078 | 0.041 | 119 |
| 10/01/2017 | 09:00:00 | 1883.02 | 258507 | 2 | 0.176 | 257749 | 119 | 108 | 0.030 | 0.075 | 0.101 | 0.076 | 0.041 | 117 |
| 10/01/2017 | 10:00:00 | 1884.02 | 258623 | 1.991 | 0.174 | 257865 | 116 | 106 | 0.030 | 0.075 | 0.099 | 0.074 | 0.041 | 114 |
| 10/01/2017 | 11:00:00 | 1885.02 | 258736 | 2.001 | 0.172 | 257977 | 112 | 105 | 0.030 | 0.075 | 0.097 | 0.071 | 0.041 | 112 |
| 10/01/2017 | 12:00:00 | 1886.02 | 258845 | 2 | 0.17 | 258086 | 109 | 103 | 0.030 | 0.075 | 0.095 | 0.069 | 0.040 | 110 |
| 10/01/2017 | 13:00:00 | 1887.02 | 258952 | 2.002 | 0.169 | 258193 | 107 | 103 | 0.030 | 0.075 | 0.094 | 0.068 | 0.040 | 108 |
| 10/01/2017 | 14:00:00 | 1888.02 | 259058 | 1.998 | 0.168 | 258298 | 105 | 102 | 0.030 | 0.075 | 0.093 | 0.067 | 0.040 | 107 |
| 10/01/2017 | 15:00:00 | 1889.02 | 259164 | 1.998 | 0.169 | 258404 | 106 | 103 | 0.030 | 0.075 | 0.094 | 0.068 | 0.040 | 108 |
| 10/01/2017 | 16:00:00 | 1890.02 | 259274 | 1.996 | 0.172 | 258514 | 110 | 105 | 0.030 | 0.075 | 0.097 | 0.071 | 0.041 | 112 |
| 10/01/2017 | 17:00:00 | 1891.02 | 259388 | 2.001 | 0.174 | 258628 | 114 | 106 | 0.030 | 0.075 | 0.099 | 0.074 | 0.041 | 114 |
| 10/01/2017 | 18:00:00 | 1892.02 | 259502 | 1.988 | 0.172 | 258741 | 113 | 105 | 0.030 | 0.075 | 0.097 | 0.071 | 0.041 | 112 |
| 10/01/2017 | 19:00:00 | 1893.02 | 259612 | 1.997 | 0.17 | 258851 | 110 | 103 | 0.030 | 0.075 | 0.095 | 0.069 | 0.040 | 110 |
| 10/01/2017 | 20:00:00 | 1894.02 | 259716 | 2.002 | 0.167 | 258955 | 104 | 101 | 0.030 | 0.075 | 0.092 | 0.066 | 0.040 | 106 |
| 10/01/2017 | 21:00:00 | 1895.02 | 259817 | 2 | 0.163 | 259055 | 100 | 98 | 0.030 | 0.075 | 0.088 | 0.062 | 0.040 | 101 |
| 10/01/2017 | 22:00:00 | 1896.02 | 259913 | 2.001 | 0.163 | 259151 | 96 | 98 | 0.030 | 0.075 | 0.088 | 0.062 | 0.040 | 101 |
| 10/01/2017 | 23:00:00 | 1897.02 | 260006 | 1.997 | 0.162 | 259244 | 93 | 97 | 0.030 | 0.075 | 0.087 | 0.061 | 0.039 | 100 |
| 11/01/2017 | 00:00:00 | 1898.02 | 260096 | 2.001 | 0.161 | 259334 | 90 | 97 | 0.030 | 0.075 | 0.086 | 0.060 | 0.039 | 99 |
| 11/01/2017 | 01:00:00 | 1899.02 | 260185 | 1.995 | 0.16 | 259422 | 88 | 96 | 0.030 | 0.075 | 0.085 | 0.059 | 0.039 | 98 |
| 11/01/2017 | 02:00:00 | 1900.02 | 260281 | 1.995 | 0.163 | 259519 | 97 | 98 | 0.030 | 0.075 | 0.088 | 0.062 | 0.040 | 101 |
| 11/01/2017 | 03:00:00 | 1901.02 | 260387 | 2.005 | 0.167 | 259624 | 105 | 101 | 0.030 | 0.075 | 0.092 | 0.066 | 0.040 | 106 |
| 11/01/2017 | 04:00:00 | 1902.02 | 260495 | 1.996 | 0.168 | 259732 | 108 | 102 | 0.030 | 0.075 | 0.093 | 0.067 | 0.040 | 107 |
| 11/01/2017 | 05:00:00 | 1903.02 | 260603 | 2.004 | 0.167 | 259839 | 107 | 101 | 0.030 | 0.075 | 0.092 | 0.066 | 0.040 | 106 |
| 11/01/2017 | 06:00:00 | 1904.02 | 260709 | 1.991 | 0.168 | 259945 | 106 | 102 | 0.030 | 0.075 | 0.093 | 0.067 | 0.040 | 107 |
| 11/01/2017 | 07:00:00 | 1905.02 | 260813 | 1.997 | 0.163 | 260049 | 104 | 98 | 0.030 | 0.075 | 0.088 | 0.062 | 0.040 | 101 |
| 11/01/2017 | 08:00:00 | 1906.02 | 260914 | 1.995 | 0.162 | 260149 | 100 | 98 | 0.030 | 0.075 | 0.087 | 0.061 | 0.039 | 100 |
| 11/01/2017 | 09:00:00 | 1907.02 | 261010 | 1.997 | 0.16 | 260246 | 97 | 96 | 0.030 | 0.075 | 0.085 | 0.059 | 0.039 | 98 |
| 11/01/2017 | 10:00:00 | 1908.02 | 261105 | 2.001 | 0.16 | 260341 | 95 | 96 | 0.030 | 0.075 | 0.085 | 0.059 | 0.039 | 98 |
| 11/01/2017 | 11:00:00 | 1909.02 | 261203 | 2.01 | 0.16 | 260439 | 98 | 96 | 0.030 | 0.075 | 0.085 | 0.059 | 0.039 | 98 |
| 11/01/2017 | 12:00:00 | 1910.02 | 261301 | 1.997 | 0.163 | 260536 | 97 | 98 | 0.030 | 0.075 | 0.088 | 0.062 | 0.040 | 101 |
| 11/01/2017 | 13:00:00 | 1911.02 | 261403 | 1.999 | 0.166 | 260637 | 101 | 100 | 0.030 | 0.075 | 0.091 | 0.065 | 0.040 | 105 |
| 11/01/2017 | 14:00:00 | 1912.02 | 261504 | 1.997 | 0.163 | 260738 | 101 | 98 | 0.030 | 0.075 | 0.088 | 0.062 | 0.040 | 101 |
| 11/01/2017 | 15:00:00 | 1913.02 | 261601 | 2.001 | 0.161 | 260835 | 97 | 97 | 0.030 | 0.075 | 0.086 | 0.060 | 0.039 | 99 |
| 11/01/2017 | 16:00:00 | 1914.02 | 261695 | 2.006 | 0.158 | 260929 | 94 | 95 | 0.030 | 0.075 | 0.083 | 0.056 | 0.039 | 95 |
| 11/01/2017 | 17:00:00 | 1915.02 | 261784 | 2.004 | 0.155 | 261018 | 89 | 93 | 0.030 | 0.075 | 0.080 | 0.053 | 0.039 | 92 |
| 11/01/2017 | 18:00:00 | 1916.02 | 261871 | 2.006 | 0.157 | 261105 | 87 | 94 | 0.030 | 0.075 | 0.082 | 0.055 | 0.039 | 94 |
| 11/01/2017 | 19:00:00 | 1917.02 | 261959 | 1.994 | 0.157 | 261192 | 87 | 94 | 0.030 | 0.075 | 0.082 | 0.055 | 0.039 | 94 |
| 11/01/2017 | 20:00:00 | 1918.02 | 262044 | 1.998 | 0.155 | 261277 | 85 | 93 | 0.030 | 0.075 | 0.080 | 0.053 | 0.039 | 92 |
| 11/01/2017 | 21:00:00 | 1919.02 | 262125 | 2.003 | 0.151 | 261358 | 81 | 91 | 0.030 | 0.075 | 0.076 | 0.049 | 0.038 | 88 |
| 11/01/2017 | 22:00:00 | 1920.02 | 262204 | 1.998 | 0.149 | 261437 | 79 | 90 | 0.030 | 0.075 | 0.074 | 0.048 | 0.038 | 85 |
| 11/01/2017 | 23:00:00 | 1921.02 | 262281 | 2 | 0.148 | 261513 | | | | | | | | |

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|------------|----------|---------|--------|-------|-------|--------|-----|------|-------|-------|-------|-------|-------|-----|
| 12/01/2017 | 14:00:00 | 1936.02 | 263308 | 2.001 | 0.146 | 262538 | 63 | 88 | 0.030 | 0.075 | 0.071 | 0.045 | 0.037 | 82 |
| 12/01/2017 | 15:00:00 | 1937.02 | 263372 | 1.998 | 0.145 | 262602 | 64 | 87 | 0.030 | 0.075 | 0.070 | 0.044 | 0.037 | 81 |
| 12/01/2017 | 16:00:00 | 1938.02 | 263433 | 1.999 | 0.142 | 262663 | 61 | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 12/01/2017 | 17:00:00 | 1939.02 | 263492 | 1.999 | 0.142 | 262722 | 59 | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 12/01/2017 | 18:00:00 | 1940.02 | 263552 | 1.998 | 0.142 | 262782 | 60 | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 12/01/2017 | 19:00:00 | 1941.02 | 263610 | 2.003 | 0.141 | 262840 | 58 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 12/01/2017 | 20:00:00 | 1942.02 | 263668 | 1.999 | 0.141 | 262897 | 57 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 12/01/2017 | 21:00:00 | 1943.02 | 263725 | 2.001 | 0.141 | 262954 | 57 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 12/01/2017 | 22:00:00 | 1944.02 | 263782 | 2.003 | 0.143 | 263012 | 58 | 86 | 0.030 | 0.075 | 0.068 | 0.042 | 0.037 | 79 |
| 12/01/2017 | 23:00:00 | 1945.02 | 263841 | 1.999 | 0.141 | 263070 | 58 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 13/01/2017 | 00:00:00 | 1946.02 | 263896 | 2.003 | 0.14 | 263125 | 55 | 85 | 0.030 | 0.075 | 0.065 | 0.039 | 0.037 | 76 |
| 13/01/2017 | 01:00:00 | 1947.02 | 263951 | 1.999 | 0.14 | 263180 | 55 | 85 | 0.030 | 0.075 | 0.065 | 0.039 | 0.037 | 76 |
| 13/01/2017 | 02:00:00 | 1948.02 | 264004 | 2.004 | 0.137 | 263233 | 53 | 83 | 0.030 | 0.075 | 0.062 | 0.036 | 0.036 | 73 |
| 13/01/2017 | 03:00:00 | 1949.02 | 264058 | 2.002 | 0.136 | 263287 | 54 | 83 | 0.030 | 0.075 | 0.061 | 0.036 | 0.036 | 72 |
| 13/01/2017 | 04:00:00 | 1950.02 | 264111 | 2.003 | 0.136 | 263340 | 53 | 83 | 0.030 | 0.075 | 0.061 | 0.036 | 0.036 | 72 |
| 13/01/2017 | 05:00:00 | 1951.02 | 264165 | 2.003 | 0.133 | 263394 | 54 | 81 | 0.030 | 0.075 | 0.058 | 0.033 | 0.036 | 69 |
| 13/01/2017 | 06:00:00 | 1952.02 | 264220 | 1.995 | 0.132 | 263448 | 54 | 81 | 0.030 | 0.075 | 0.057 | 0.032 | 0.036 | 68 |
| 13/01/2017 | 07:00:00 | 1952.73 | 264251 | 2.356 | 0.138 | 263480 | 32 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 13/01/2017 | 08:00:00 | 1952.73 | 264251 | 2.354 | 0.138 | 263480 | 0 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 13/01/2017 | 09:00:00 | 1952.73 | 264251 | 2.351 | 0.137 | 263480 | 0 | 83 | 0.030 | 0.075 | 0.062 | 0.036 | 0.036 | 73 |
| 13/01/2017 | 10:00:00 | 1952.73 | 264251 | 2.351 | 0.136 | 263480 | 0 | 83 | 0.030 | 0.075 | 0.061 | 0.036 | 0.036 | 72 |
| 13/01/2017 | 11:00:00 | 1952.73 | 264251 | 2.35 | 0.135 | 263480 | 0 | 82 | 0.030 | 0.075 | 0.060 | 0.035 | 0.036 | 71 |
| 13/01/2017 | 12:00:00 | 1952.73 | 264251 | 2.351 | 0.135 | 263480 | 0 | 82 | 0.030 | 0.075 | 0.060 | 0.035 | 0.036 | 71 |
| 13/01/2017 | 13:00:00 | 1952.73 | 264251 | 2.351 | 0.135 | 263480 | 0 | 82 | 0.030 | 0.075 | 0.060 | 0.035 | 0.036 | 71 |
| 13/01/2017 | 14:00:00 | 1953.2 | 264274 | 1.998 | 0.135 | 263502 | 22 | 82 | 0.030 | 0.075 | 0.060 | 0.035 | 0.036 | 71 |
| 13/01/2017 | 15:00:00 | 1954.2 | 264322 | 1.998 | 0.135 | 263550 | 48 | 82 | 0.030 | 0.075 | 0.060 | 0.035 | 0.036 | 71 |
| 13/01/2017 | 16:00:00 | 1955.2 | 264369 | 1.998 | 0.135 | 263598 | 48 | 82 | 0.030 | 0.075 | 0.060 | 0.035 | 0.036 | 71 |
| 13/01/2017 | 17:00:00 | 1956.2 | 264416 | 2.002 | 0.133 | 263645 | 47 | 81 | 0.030 | 0.075 | 0.058 | 0.033 | 0.036 | 69 |
| 13/01/2017 | 18:00:00 | 1957.2 | 264463 | 2.001 | 0.133 | 263691 | 46 | 81 | 0.030 | 0.075 | 0.058 | 0.033 | 0.036 | 69 |
| 13/01/2017 | 19:00:00 | 1958.2 | 264508 | 1.998 | 0.133 | 263736 | 45 | 81 | 0.030 | 0.075 | 0.058 | 0.033 | 0.036 | 69 |
| 13/01/2017 | 20:00:00 | 1959.2 | 264553 | 1.997 | 0.133 | 263781 | 45 | 81 | 0.030 | 0.075 | 0.058 | 0.033 | 0.036 | 69 |
| 13/01/2017 | 21:00:00 | 1960.2 | 264598 | 1.999 | 0.133 | 263826 | 45 | 81 | 0.030 | 0.075 | 0.058 | 0.033 | 0.036 | 69 |
| 13/01/2017 | 22:00:00 | 1961.2 | 264642 | 2.004 | 0.132 | 263869 | 43 | 81 | 0.030 | 0.075 | 0.057 | 0.032 | 0.036 | 68 |
| 13/01/2017 | 23:00:00 | 1962.2 | 264686 | 2.003 | 0.131 | 263913 | 44 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 14/01/2017 | 00:00:00 | 1963.2 | 264729 | 2.002 | 0.131 | 263957 | 44 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 14/01/2017 | 01:00:00 | 1964.2 | 264773 | 2.003 | 0.131 | 264000 | 43 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 14/01/2017 | 02:00:00 | 1965.2 | 264816 | 2.002 | 0.13 | 264043 | 43 | 80 | 0.030 | 0.075 | 0.055 | 0.030 | 0.035 | 66 |
| 14/01/2017 | 03:00:00 | 1966.2 | 264859 | 2.002 | 0.131 | 264087 | 44 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 14/01/2017 | 04:00:00 | 1967.2 | 264902 | 1.997 | 0.131 | 264129 | 42 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 14/01/2017 | 05:00:00 | 1968.2 | 264944 | 1.999 | 0.131 | 264171 | 42 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 14/01/2017 | 06:00:00 | 1969.2 | 264987 | 2.001 | 0.131 | 264214 | 43 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 14/01/2017 | 07:00:00 | 1970.2 | 265029 | 2.004 | 0.131 | 264256 | 42 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 14/01/2017 | 08:00:00 | 1971.2 | 265071 | 1.997 | 0.131 | 264297 | 41 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 14/01/2017 | 09:00:00 | 1972.2 | 265113 | 2.002 | 0.13 | 264339 | 42 | 80 | 0.030 | 0.075 | 0.055 | 0.030 | 0.035 | 66 |
| 14/01/2017 | 10:00:00 | 1973.2 | 265154 | 1.999 | 0.131 | 264381 | 42 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 14/01/2017 | 11:00:00 | 1974.2 | 265195 | 2.001 | 0.13 | 264422 | 41 | 80 | 0.030 | 0.075 | 0.055 | 0.030 | 0.035 | 66 |
| 14/01/2017 | 12:00:00 | 1975.2 | 265237 | 1.998 | 0.13 | 264463 | 41 | 80 | 0.030 | 0.075 | 0.055 | 0.030 | 0.035 | 66 |
| 14/01/2017 | 13:00:00 | 1976.2 | 265278 | 2.001 | 0.13 | 264504 | 41 | 80 | 0.030 | 0.075 | 0.055 | 0.030 | 0.035 | 66 |
| 14/01/2017 | 14:00:00 | 1977.2 | 265319 | 1.997 | 0.13 | 264545 | 41 | 80 | 0.030 | 0.075 | 0.055 | 0.030 | 0.035 | 66 |
| 14/01/2017 | 15:00:00 | 1978.2 | 265360 | 1.998 | 0.13 | 264587 | 42 | 80 | 0.030 | 0.075 | 0.055 | 0.030 | 0.035 | 66 |
| 14/01/2017 | 16:00:00 | 1979.2 | 265402 | 2.001 | 0.13 | 264628 | 41 | 80 | 0.030 | 0.075 | 0.055 | 0.030 | 0.035 | 66 |
| 14/01/2017 | 17:00:00 | 1980.2 | 265443 | 2.001 | 0.13 | 264669 | 41 | 80 | 0.030 | 0.075 | 0.055 | 0.030 | 0.035 | 66 |
| 14/01/2017 | 18:00:00 | 1981.2 | 265483 | 2.003 | 0.13 | 264709 | 40 | 80 | 0.030 | 0.075 | 0.055 | 0.030 | 0.035 | 66 |
| 14/01/2017 | 19:00:00 | 1982.2 | 265523 | 1.999 | 0.129 | 264749 | 40 | 79 | 0.030 | 0.075 | 0.054 | 0.030 | 0.035 | 65 |
| 14/01/2017 | 20:00:00 | 1983.2 | 265562 | 2.001 | 0.129 | 264788 | 39 | 79 | 0.030 | 0.075 | 0.054 | 0.030 | 0.035 | 65 |
| 14/01/2017 | 21:00:00 | 1984.2 | 265601 | 1.997 | 0.129 | 264827 | 39 | 79 | 0.030 | 0.075 | 0.054 | 0.030 | 0.035 | 65 |
| 14/01/2017 | 22:00:00 | 1985.2 | 265643 | 2.001 | 0.132 | 264868 | 41 | 81 | 0.030 | 0.075 | 0.057 | 0.032 | 0.036 | 68 |
| 14/01/2017 | 23:00:00 | 1986.2 | 265688 | 2.002 | 0.134 | 264913 | 45 | 82 | 0.030 | 0.075 | 0.059 | 0.034 | 0.036 | 70 |
| 15/01/2017 | 00:00:00 | 1987.2 | 265739 | 1.998 | 0.14 | 264964 | 51 | 85 | 0.030 | 0.075 | 0.065 | 0.039 | 0.037 | 76 |
| 15/01/2017 | 01:00:00 | 1988.2 | 265800 | 2.002 | 0.146 | 265025 | 61 | 88 | 0.030 | 0.075 | 0.071 | 0.045 | 0.037 | 82 |
| 15/01/2017 | 02:00:00 | 1989.2 | 265866 | 2.003 | 0.149 | 265091 | 66 | 90 | 0.030 | 0.075 | 0.074 | 0.048 | 0.038 | 85 |
| 15/01/2017 | 03:00:00 | 1990.2 | 265940 | 2.002 | 0.156 | 265165 | 74 | 94 | 0.030 | 0.075 | 0.081 | 0.054 | 0.039 | 93 |
| 15/01/2017 | 04:00:00 | 1991.2 | 266029 | 2.006 | 0.169 | 265254 | 89 | 103 | 0.030 | 0.075 | 0.094 | 0.068 | 0.040 | 108 |
| 15/01/2017 | 05:00:00 | 1992.2 | 266177 | 2.032 | 0.227 | 265401 | 147 | 155 | 0.030 | 0.075 | 0.152 | 0.140 | 0.047 | 187 |
| 15/01/2017 | 06:00:00 | 1993.2 | 266501 | 2.266 | 0.329 | 265725 | 324 | 300 | 0.030 | 0.075 | 0.254 | 0.302 | 0.056 | 359 |
| 15/01/2017 | 07:00:00 | 1994.2 | 266889 | 2.407 | 0.43 | 266112 | 387 | 511 | 0.030 | 0.075 | 0.355 | 0.500 | 0.064 | 564 |
| 15/01/2017 | 08:00:00 | 1995.2 | 267278 | 2.601 | 0.517 | 266500 | 388 | 746 | 0.030 | 0.075 | 0.442 | 0.694 | 0.070 | 765 |
| 15/01/2017 | 09:00:00 | 1996.2 | 267666 | 2.666 | 0.544 | 266887 | 387 | 829 | 0.030 | 0.075 | 0.469 | 0.759 | 0.072 | 831 |
| 15/01/2017 | 10:00:00 | 1997.2 | 268055 | 2.671 | 0.541 | 267275 | 388 | 819 | 0.030 | 0.075 | 0.466 | 0.751 | 0.072 | 824 |
| 15/01/2017 | 11:00:00 | 1998.2 | 268443 | 2.696 | 0.568 | 267663 | 388 | 906 | 0.030 | 0.075 | 0.493 | 0.818 | 0.074 | 892 |
| 15/01/2017 | 12:00:00 | 1999.2 | 268832 | 2.717 | 0.593 | 268051 | 388 | 991 | 0.030 | 0.075 | 0.518 | 0.881 | 0.075 | 956 |
| 15/01/2017 | 13:00:00 | 2000.2 | 269221 | 2.759 | 0.609 | 268439 | 388 | 1048 | 0.030 | 0.075 | 0.534 | 0.922 | 0.076 | 998 |
| 15/01/2017 | 14:00:00 | 2001.2 | 269610 | 2.725 | 0.568 | 268827 | 388 | 906 | 0.030 | 0.075 | 0.493 | 0.818 | 0.074 | 892 |
| 15/01/2017 | 15:00:00 | 2002.2 | 269998 | 2.618 | 0.52 | 269215 | 388 | 755 | 0.030 | 0.075 | 0.445 | 0.701 | 0.071 | 772 |
| 15/01/2017 | 16:00:00 | 2003.2 | 270387 | 2.499 | 0.469 | 269602 | 387 | 610 | 0.030 | 0.075 | 0.394 | 0.584 | 0.067 | 651 |
| 15/01/2017 | 17:00:00 | 2004.2 | 270775 | 2.411 | 0.421 | 269989 | 387 | 489 | 0.030 | 0.075 | 0.346 | 0.481 | 0.064 | 544 |
| 15/01/2017 | 18:00:00 | 2005.2 | 271163 | 2.359 | 0.38 | 270376 | 387 | 398 | 0.030 | 0.075 | 0.305 | 0.398 | 0.060 | 458 |
| 15/01/2017 | 19:00:00 | 2006.2 | 271551 | 2.321 | 0.352 | 270763 | 387 | 342 | 0.030 | 0.075 | 0.277 | 0.344 | 0.058 | 403 |
| 15/01/2017 | 20:00:00 | 2007.2 | 271938 | | | | | | | | | | | |

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|------------|----------|---------|--------|-------|-------|--------|-----|-----|-------|-------|-------|-------|-------|-----|
| 15/06/2017 | 10:00:00 | 3901.37 | 640842 | 2.002 | 0.178 | 639029 | 119 | 109 | 0.030 | 0.075 | 0.103 | 0.078 | 0.041 | 119 |
| 15/06/2017 | 11:00:00 | 3902.37 | 640955 | 2 | 0.174 | 639142 | 113 | 106 | 0.030 | 0.075 | 0.099 | 0.074 | 0.041 | 114 |
| 15/06/2017 | 12:00:00 | 3903.37 | 641063 | 2 | 0.174 | 639249 | 107 | 106 | 0.030 | 0.075 | 0.099 | 0.074 | 0.041 | 114 |
| 15/06/2017 | 13:00:00 | 3904.37 | 641168 | 2 | 0.17 | 639354 | 105 | 103 | 0.030 | 0.075 | 0.095 | 0.069 | 0.040 | 110 |
| 15/06/2017 | 14:00:00 | 3905.37 | 641270 | 2 | 0.17 | 639456 | 102 | 103 | 0.030 | 0.075 | 0.095 | 0.069 | 0.040 | 110 |
| 15/06/2017 | 15:00:00 | 3906.37 | 641370 | 2.005 | 0.169 | 639556 | 100 | 103 | 0.030 | 0.075 | 0.094 | 0.068 | 0.040 | 108 |
| 15/06/2017 | 16:00:00 | 3907.37 | 641467 | 1.997 | 0.168 | 639653 | 97 | 102 | 0.030 | 0.075 | 0.093 | 0.067 | 0.040 | 107 |
| 15/06/2017 | 17:00:00 | 3908.37 | 641564 | 1.999 | 0.168 | 639750 | 97 | 102 | 0.030 | 0.075 | 0.093 | 0.067 | 0.040 | 107 |
| 15/06/2017 | 18:00:00 | 3909.37 | 641663 | 1.997 | 0.168 | 639849 | 99 | 102 | 0.030 | 0.075 | 0.093 | 0.067 | 0.040 | 107 |
| 15/06/2017 | 19:00:00 | 3910.37 | 641773 | 2.001 | 0.178 | 639958 | 109 | 109 | 0.030 | 0.075 | 0.103 | 0.078 | 0.041 | 119 |
| 15/06/2017 | 20:00:00 | 3911.37 | 641892 | 1.993 | 0.176 | 640077 | 119 | 108 | 0.030 | 0.075 | 0.101 | 0.076 | 0.041 | 117 |
| 15/06/2017 | 21:00:00 | 3912.37 | 642004 | 1.993 | 0.174 | 640188 | 111 | 106 | 0.030 | 0.075 | 0.099 | 0.074 | 0.041 | 114 |
| 15/06/2017 | 22:00:00 | 3913.37 | 642111 | 1.994 | 0.17 | 640295 | 107 | 103 | 0.030 | 0.075 | 0.095 | 0.069 | 0.040 | 110 |
| 15/06/2017 | 23:00:00 | 3914.37 | 642215 | 2.008 | 0.17 | 640399 | 104 | 103 | 0.030 | 0.075 | 0.095 | 0.069 | 0.040 | 110 |
| 16/06/2017 | 00:00:00 | 3915.37 | 642317 | 2.001 | 0.169 | 640500 | 101 | 103 | 0.030 | 0.075 | 0.094 | 0.068 | 0.040 | 108 |
| 16/06/2017 | 01:00:00 | 3916.37 | 642416 | 2.001 | 0.168 | 640599 | 99 | 102 | 0.030 | 0.075 | 0.093 | 0.067 | 0.040 | 107 |
| 16/06/2017 | 02:00:00 | 3917.37 | 642513 | 2.005 | 0.168 | 640696 | 97 | 102 | 0.030 | 0.075 | 0.093 | 0.067 | 0.040 | 107 |
| 16/06/2017 | 03:00:00 | 3918.37 | 642610 | 2.002 | 0.168 | 640793 | 97 | 102 | 0.030 | 0.075 | 0.093 | 0.067 | 0.040 | 107 |
| 16/06/2017 | 04:00:00 | 3919.37 | 642706 | 2.002 | 0.168 | 640889 | 96 | 102 | 0.030 | 0.075 | 0.093 | 0.067 | 0.040 | 107 |
| 16/06/2017 | 05:00:00 | 3920.37 | 642802 | 1.998 | 0.166 | 640984 | 95 | 100 | 0.030 | 0.075 | 0.091 | 0.065 | 0.040 | 105 |
| 16/06/2017 | 06:00:00 | 3921.37 | 642896 | 1.998 | 0.165 | 641077 | 93 | 100 | 0.030 | 0.075 | 0.090 | 0.064 | 0.040 | 104 |
| 16/06/2017 | 07:00:00 | 3922.37 | 642988 | 2 | 0.164 | 641170 | 93 | 99 | 0.030 | 0.075 | 0.089 | 0.063 | 0.040 | 102 |
| 16/06/2017 | 08:00:00 | 3923.37 | 643079 | 2 | 0.163 | 641261 | 91 | 98 | 0.030 | 0.075 | 0.088 | 0.062 | 0.040 | 101 |
| 16/06/2017 | 09:00:00 | 3924.37 | 643169 | 2.001 | 0.163 | 641350 | 89 | 98 | 0.030 | 0.075 | 0.088 | 0.062 | 0.040 | 101 |
| 16/06/2017 | 10:00:00 | 3925.37 | 643257 | 2 | 0.162 | 641438 | 88 | 98 | 0.030 | 0.075 | 0.087 | 0.061 | 0.039 | 100 |
| 16/06/2017 | 11:00:00 | 3926.37 | 643344 | 1.996 | 0.162 | 641525 | 87 | 98 | 0.030 | 0.075 | 0.087 | 0.061 | 0.039 | 100 |
| 16/06/2017 | 12:00:00 | 3927.37 | 643430 | 2 | 0.16 | 641610 | 85 | 96 | 0.030 | 0.075 | 0.085 | 0.059 | 0.039 | 98 |
| 16/06/2017 | 13:00:00 | 3928.37 | 643515 | 2.004 | 0.159 | 641695 | 85 | 96 | 0.030 | 0.075 | 0.084 | 0.058 | 0.039 | 97 |
| 16/06/2017 | 14:00:00 | 3929.37 | 643599 | 1.998 | 0.159 | 641778 | 83 | 96 | 0.030 | 0.075 | 0.084 | 0.058 | 0.039 | 97 |
| 16/06/2017 | 15:00:00 | 3930.37 | 643682 | 2 | 0.159 | 641861 | 83 | 96 | 0.030 | 0.075 | 0.084 | 0.058 | 0.039 | 97 |
| 16/06/2017 | 16:00:00 | 3931.37 | 643764 | 1.999 | 0.158 | 641943 | 82 | 95 | 0.030 | 0.075 | 0.083 | 0.056 | 0.039 | 95 |
| 16/06/2017 | 17:00:00 | 3932.37 | 643845 | 2.001 | 0.158 | 642024 | 81 | 95 | 0.030 | 0.075 | 0.083 | 0.056 | 0.039 | 95 |
| 16/06/2017 | 18:00:00 | 3933.37 | 643926 | 1.997 | 0.158 | 642105 | 81 | 95 | 0.030 | 0.075 | 0.083 | 0.056 | 0.039 | 95 |
| 16/06/2017 | 19:00:00 | 3934.37 | 644006 | 2.002 | 0.157 | 642184 | 79 | 94 | 0.030 | 0.075 | 0.082 | 0.055 | 0.039 | 94 |
| 16/06/2017 | 20:00:00 | 3935.37 | 644085 | 1.999 | 0.157 | 642263 | 79 | 94 | 0.030 | 0.075 | 0.082 | 0.055 | 0.039 | 94 |
| 16/06/2017 | 21:00:00 | 3936.37 | 644163 | 2.003 | 0.157 | 642341 | 78 | 94 | 0.030 | 0.075 | 0.082 | 0.055 | 0.039 | 94 |
| 16/06/2017 | 22:00:00 | 3937.37 | 644240 | 2 | 0.155 | 642418 | 77 | 93 | 0.030 | 0.075 | 0.080 | 0.053 | 0.039 | 92 |
| 16/06/2017 | 23:00:00 | 3938.37 | 644317 | 1.997 | 0.156 | 642494 | 76 | 94 | 0.030 | 0.075 | 0.081 | 0.054 | 0.039 | 93 |
| 17/06/2017 | 00:00:00 | 3939.37 | 644393 | 1.998 | 0.154 | 642570 | 76 | 93 | 0.030 | 0.075 | 0.079 | 0.052 | 0.038 | 91 |
| 17/06/2017 | 01:00:00 | 3940.37 | 644468 | 1.999 | 0.154 | 642645 | 75 | 93 | 0.030 | 0.075 | 0.079 | 0.052 | 0.038 | 91 |
| 17/06/2017 | 02:00:00 | 3941.37 | 644542 | 2.003 | 0.154 | 642719 | 74 | 93 | 0.030 | 0.075 | 0.079 | 0.052 | 0.038 | 91 |
| 17/06/2017 | 03:00:00 | 3942.37 | 644616 | 1.998 | 0.153 | 642792 | 73 | 92 | 0.030 | 0.075 | 0.078 | 0.051 | 0.038 | 90 |
| 17/06/2017 | 04:00:00 | 3943.37 | 644688 | 2.001 | 0.153 | 642864 | 72 | 92 | 0.030 | 0.075 | 0.078 | 0.051 | 0.038 | 90 |
| 17/06/2017 | 05:00:00 | 3944.37 | 644759 | 2.002 | 0.152 | 642935 | 71 | 91 | 0.030 | 0.075 | 0.077 | 0.050 | 0.038 | 89 |
| 17/06/2017 | 06:00:00 | 3945.37 | 644830 | 2 | 0.152 | 643006 | 71 | 91 | 0.030 | 0.075 | 0.077 | 0.050 | 0.038 | 89 |
| 17/06/2017 | 07:00:00 | 3946.37 | 644900 | 1.997 | 0.151 | 643076 | 70 | 91 | 0.030 | 0.075 | 0.076 | 0.049 | 0.038 | 88 |
| 17/06/2017 | 08:00:00 | 3947.37 | 644970 | 2.003 | 0.151 | 643145 | 69 | 91 | 0.030 | 0.075 | 0.076 | 0.049 | 0.038 | 88 |
| 17/06/2017 | 09:00:00 | 3948.37 | 645038 | 2 | 0.15 | 643214 | 69 | 90 | 0.030 | 0.075 | 0.075 | 0.049 | 0.038 | 86 |
| 17/06/2017 | 10:00:00 | 3949.37 | 645106 | 2.001 | 0.148 | 643281 | 67 | 89 | 0.030 | 0.075 | 0.073 | 0.047 | 0.038 | 84 |
| 17/06/2017 | 11:00:00 | 3950.37 | 645173 | 2 | 0.149 | 643348 | 67 | 90 | 0.030 | 0.075 | 0.074 | 0.048 | 0.038 | 85 |
| 17/06/2017 | 12:00:00 | 3951.37 | 645238 | 1.998 | 0.148 | 643413 | 65 | 89 | 0.030 | 0.075 | 0.073 | 0.047 | 0.038 | 84 |
| 17/06/2017 | 13:00:00 | 3952.37 | 645302 | 1.998 | 0.146 | 643476 | 63 | 88 | 0.030 | 0.075 | 0.071 | 0.045 | 0.037 | 82 |
| 17/06/2017 | 14:00:00 | 3953.37 | 645364 | 1.998 | 0.145 | 643538 | 62 | 87 | 0.030 | 0.075 | 0.070 | 0.044 | 0.037 | 81 |
| 17/06/2017 | 15:00:00 | 3954.37 | 645425 | 1.997 | 0.144 | 643599 | 61 | 87 | 0.030 | 0.075 | 0.069 | 0.043 | 0.037 | 80 |
| 17/06/2017 | 16:00:00 | 3955.38 | 645484 | 2.004 | 0.144 | 643658 | 59 | 87 | 0.030 | 0.075 | 0.069 | 0.043 | 0.037 | 80 |
| 17/06/2017 | 17:00:00 | 3956.38 | 645542 | 1.999 | 0.142 | 643716 | 58 | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 17/06/2017 | 18:00:00 | 3957.38 | 645599 | 2.003 | 0.143 | 643773 | 57 | 86 | 0.030 | 0.075 | 0.068 | 0.042 | 0.037 | 79 |
| 17/06/2017 | 19:00:00 | 3958.38 | 645656 | 1.999 | 0.142 | 643830 | 57 | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 17/06/2017 | 20:00:00 | 3959.38 | 645712 | 2.003 | 0.142 | 643885 | 55 | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 17/06/2017 | 21:00:00 | 3960.38 | 645768 | 2.004 | 0.142 | 643942 | 57 | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 17/06/2017 | 22:00:00 | 3961.38 | 645825 | 2.003 | 0.142 | 643998 | 56 | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 17/06/2017 | 23:00:00 | 3962.38 | 645881 | 2.003 | 0.142 | 644054 | 56 | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 18/06/2017 | 00:00:00 | 3963.38 | 645938 | 1.999 | 0.144 | 644110 | 56 | 87 | 0.030 | 0.075 | 0.069 | 0.043 | 0.037 | 80 |
| 18/06/2017 | 01:00:00 | 3964.38 | 645994 | 2 | 0.142 | 644166 | 56 | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 18/06/2017 | 02:00:00 | 3965.38 | 646050 | 2.002 | 0.142 | 644222 | 56 | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 18/06/2017 | 03:00:00 | 3966.38 | 646106 | 2 | 0.142 | 644278 | 56 | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 18/06/2017 | 04:00:00 | 3967.38 | 646161 | 2 | 0.142 | 644334 | 56 | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 18/06/2017 | 05:00:00 | 3968.38 | 646217 | 2.001 | 0.142 | 644389 | 55 | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 18/06/2017 | 06:00:00 | 3969.38 | 646271 | 2.002 | 0.142 | 644443 | 54 | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 18/06/2017 | 07:00:00 | 3970.38 | 646326 | 1.998 | 0.142 | 644498 | 55 | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 18/06/2017 | 08:00:00 | 3971.38 | 646381 | 1.998 | 0.141 | 644552 | 54 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 18/06/2017 | 09:00:00 | 3972.38 | 646434 | 1.998 | 0.141 | 644606 | 54 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 18/06/2017 | 10:00:00 | 3973.38 | 646487 | 2 | 0.14 | 644659 | 53 | 85 | 0.030 | 0.075 | 0.065 | 0.039 | 0.037 | 76 |
| 18/06/2017 | 11:00:00 | 3974.38 | 646539 | 1.999 | 0.139 | 644710 | 51 | 84 | 0.030 | 0.075 | 0.064 | 0.038 | 0.037 | 75 |
| 18/06/2017 | 12:00:00 | 3975.38 | 646590 | 1.997 | 0.138 | 644761 | 51 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 18/06/2017 | 13:00:00 | 3976.38 | 646640 | 2 | 0.138 | 644810 | 49 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 18/06/2017 | 14:00:00 | 3977.38 | 646688 | 1.998 | 0.137 | 644858 | 48 | 83 | 0.030 | 0.075 | 0.062 | 0.036 | 0.036 | 73 |
| 18/06/2017 | 15:00:00 | 3978.38 | 646735 | 1.999 | 0.135 | 644906 | 48 | 82 | 0.030 | 0.075 | 0.060 | 0.035 | 0.036 | 71 |
| 18/06/2017 | 16:00:00 | 3979.38 | | | | | | | | | | | | |

| | | | | | | | | | | | | | | |
|------------|----------|---------|--------|-------|-------|--------|-----|-----|-------|-------|-------|-------|-------|-----|
| 23/06/2017 | 02:00:00 | 4000.67 | 647711 | 2.428 | 0.118 | 645878 | 0 | 75 | 0.030 | 0.075 | 0.043 | 0.021 | 0.020 | 41 |
| 23/06/2017 | 03:00:00 | 4000.67 | 647711 | 2.428 | 0.118 | 645878 | 0 | 75 | 0.030 | 0.075 | 0.043 | 0.021 | 0.020 | 41 |
| 23/06/2017 | 04:00:00 | 4000.67 | 647711 | 2.43 | 0.117 | 645878 | 0 | 74 | 0.030 | 0.075 | 0.042 | 0.020 | 0.020 | 40 |
| 23/06/2017 | 05:00:00 | 4000.67 | 647711 | 2.437 | 0.121 | 645878 | 0 | 76 | 0.030 | 0.075 | 0.046 | 0.023 | 0.021 | 44 |
| 23/06/2017 | 06:00:00 | 4000.9 | 647722 | 2.112 | 0.141 | 645889 | 11 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 23/06/2017 | 07:00:00 | 4001.9 | 647780 | 1.994 | 0.147 | 645947 | 58 | 88 | 0.030 | 0.075 | 0.072 | 0.046 | 0.038 | 83 |
| 23/06/2017 | 08:00:00 | 4002.9 | 647833 | 2 | 0.134 | 646000 | 53 | 82 | 0.030 | 0.075 | 0.059 | 0.034 | 0.036 | 70 |
| 23/06/2017 | 09:00:00 | 4003.6 | 647861 | 2.408 | 0.131 | 646028 | 28 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 23/06/2017 | 10:00:00 | 4003.6 | 647861 | 2.411 | 0.132 | 646028 | 0 | 81 | 0.030 | 0.075 | 0.057 | 0.032 | 0.036 | 68 |
| 23/06/2017 | 11:00:00 | 4003.97 | 647879 | 2.002 | 0.138 | 646046 | 18 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 23/06/2017 | 12:00:00 | 4004.97 | 647933 | 2.001 | 0.144 | 646100 | 54 | 87 | 0.030 | 0.075 | 0.069 | 0.043 | 0.037 | 80 |
| 23/06/2017 | 13:00:00 | 4005.97 | 647997 | 2 | 0.151 | 646164 | 64 | 91 | 0.030 | 0.075 | 0.076 | 0.049 | 0.038 | 88 |
| 23/06/2017 | 14:00:00 | 4006.97 | 648062 | 2.002 | 0.146 | 646228 | 64 | 88 | 0.030 | 0.075 | 0.071 | 0.045 | 0.037 | 82 |
| 23/06/2017 | 15:00:00 | 4007.97 | 648122 | 2.002 | 0.146 | 646288 | 60 | 88 | 0.030 | 0.075 | 0.071 | 0.045 | 0.037 | 82 |
| 23/06/2017 | 16:00:00 | 4008.97 | 648186 | 2.003 | 0.151 | 646352 | 64 | 91 | 0.030 | 0.075 | 0.076 | 0.049 | 0.038 | 88 |
| 23/06/2017 | 17:00:00 | 4009.97 | 648257 | 2.001 | 0.154 | 646423 | 71 | 93 | 0.030 | 0.075 | 0.079 | 0.052 | 0.038 | 91 |
| 23/06/2017 | 18:00:00 | 4010.97 | 648332 | 2.006 | 0.156 | 646498 | 75 | 94 | 0.030 | 0.075 | 0.081 | 0.054 | 0.039 | 93 |
| 23/06/2017 | 19:00:00 | 4011.97 | 648413 | 2.002 | 0.163 | 646579 | 81 | 98 | 0.030 | 0.075 | 0.088 | 0.062 | 0.040 | 101 |
| 23/06/2017 | 20:00:00 | 4012.97 | 648513 | 2.006 | 0.176 | 646678 | 99 | 108 | 0.030 | 0.075 | 0.101 | 0.076 | 0.041 | 117 |
| 23/06/2017 | 21:00:00 | 4013.97 | 648635 | 2 | 0.188 | 646799 | 121 | 117 | 0.030 | 0.075 | 0.113 | 0.090 | 0.042 | 132 |
| 23/06/2017 | 22:00:00 | 4014.97 | 648770 | 1.997 | 0.189 | 646934 | 135 | 118 | 0.030 | 0.075 | 0.114 | 0.091 | 0.043 | 134 |
| 23/06/2017 | 23:00:00 | 4015.97 | 648898 | 2.002 | 0.182 | 647062 | 128 | 112 | 0.030 | 0.075 | 0.107 | 0.083 | 0.042 | 124 |
| 24/06/2017 | 00:00:00 | 4016.97 | 649015 | 1.999 | 0.175 | 647178 | 116 | 107 | 0.030 | 0.075 | 0.100 | 0.075 | 0.041 | 116 |
| 24/06/2017 | 01:00:00 | 4017.97 | 649119 | 1.995 | 0.169 | 647283 | 105 | 103 | 0.030 | 0.075 | 0.094 | 0.068 | 0.040 | 108 |
| 24/06/2017 | 02:00:00 | 4018.97 | 649213 | 1.999 | 0.163 | 647376 | 93 | 98 | 0.030 | 0.075 | 0.088 | 0.062 | 0.040 | 101 |
| 24/06/2017 | 03:00:00 | 4019.97 | 649297 | 1.998 | 0.157 | 647460 | 84 | 94 | 0.030 | 0.075 | 0.082 | 0.055 | 0.039 | 94 |
| 24/06/2017 | 04:00:00 | 4020.97 | 649373 | 1.998 | 0.152 | 647535 | 75 | 91 | 0.030 | 0.075 | 0.077 | 0.050 | 0.038 | 89 |
| 24/06/2017 | 05:00:00 | 4021.97 | 649441 | 1.997 | 0.149 | 647604 | 69 | 90 | 0.030 | 0.075 | 0.074 | 0.048 | 0.038 | 85 |
| 24/06/2017 | 06:00:00 | 4022.97 | 649505 | 2 | 0.144 | 647667 | 63 | 87 | 0.030 | 0.075 | 0.069 | 0.043 | 0.037 | 80 |
| 24/06/2017 | 07:00:00 | 4023.97 | 649563 | 1.995 | 0.142 | 647726 | 59 | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 24/06/2017 | 08:00:00 | 4024.97 | 649618 | 1.998 | 0.139 | 647780 | 54 | 84 | 0.030 | 0.075 | 0.064 | 0.038 | 0.037 | 75 |
| 24/06/2017 | 09:00:00 | 4025.97 | 649669 | 1.997 | 0.138 | 647831 | 51 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 24/06/2017 | 10:00:00 | 4026.97 | 649718 | 1.997 | 0.136 | 647880 | 49 | 83 | 0.030 | 0.075 | 0.061 | 0.036 | 0.036 | 72 |
| 24/06/2017 | 11:00:00 | 4027.97 | 649765 | 1.998 | 0.133 | 647927 | 47 | 81 | 0.030 | 0.075 | 0.058 | 0.033 | 0.036 | 69 |
| 24/06/2017 | 12:00:00 | 4028.97 | 649810 | 2 | 0.132 | 647971 | 44 | 81 | 0.030 | 0.075 | 0.057 | 0.032 | 0.036 | 68 |
| 24/06/2017 | 13:00:00 | 4029.97 | 649852 | 2.003 | 0.131 | 648014 | 43 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 24/06/2017 | 14:00:00 | 4030.97 | 649893 | 1.997 | 0.13 | 648054 | 40 | 80 | 0.030 | 0.075 | 0.055 | 0.030 | 0.035 | 66 |
| 24/06/2017 | 15:00:00 | 4031.4 | 649910 | 2.385 | 0.128 | 648071 | 17 | 79 | 0.030 | 0.075 | 0.053 | 0.029 | 0.035 | 64 |
| 24/06/2017 | 16:00:00 | 4031.4 | 649910 | 2.385 | 0.126 | 648071 | 0 | 78 | 0.030 | 0.075 | 0.051 | 0.027 | 0.022 | 49 |
| 24/06/2017 | 17:00:00 | 4031.4 | 649910 | 2.385 | 0.127 | 648071 | 0 | 78 | 0.030 | 0.075 | 0.052 | 0.028 | 0.022 | 50 |
| 24/06/2017 | 18:00:00 | 4031.4 | 649910 | 2.386 | 0.126 | 648071 | 0 | 78 | 0.030 | 0.075 | 0.051 | 0.027 | 0.022 | 49 |
| 24/06/2017 | 19:00:00 | 4031.4 | 649910 | 2.388 | 0.124 | 648071 | 0 | 77 | 0.030 | 0.075 | 0.049 | 0.026 | 0.022 | 47 |
| 24/06/2017 | 20:00:00 | 4031.4 | 649910 | 2.386 | 0.125 | 648071 | 0 | 77 | 0.030 | 0.075 | 0.050 | 0.026 | 0.022 | 48 |
| 24/06/2017 | 21:00:00 | 4031.4 | 649910 | 2.389 | 0.125 | 648071 | 0 | 77 | 0.030 | 0.075 | 0.050 | 0.026 | 0.022 | 48 |
| 24/06/2017 | 22:00:00 | 4031.4 | 649910 | 2.389 | 0.124 | 648071 | 0 | 77 | 0.030 | 0.075 | 0.049 | 0.026 | 0.022 | 47 |
| 24/06/2017 | 23:00:00 | 4031.4 | 649910 | 2.388 | 0.124 | 648071 | 0 | 77 | 0.030 | 0.075 | 0.049 | 0.026 | 0.022 | 47 |
| 25/06/2017 | 00:00:00 | 4031.4 | 649910 | 2.389 | 0.124 | 648071 | 0 | 77 | 0.030 | 0.075 | 0.049 | 0.026 | 0.022 | 47 |
| 25/06/2017 | 01:00:00 | 4031.4 | 649910 | 2.391 | 0.124 | 648071 | 0 | 77 | 0.030 | 0.075 | 0.049 | 0.026 | 0.022 | 47 |
| 25/06/2017 | 02:00:00 | 4031.4 | 649910 | 2.392 | 0.124 | 648071 | 0 | 77 | 0.030 | 0.075 | 0.049 | 0.026 | 0.022 | 47 |
| 25/06/2017 | 03:00:00 | 4031.4 | 649910 | 2.393 | 0.124 | 648071 | 0 | 77 | 0.030 | 0.075 | 0.049 | 0.026 | 0.022 | 47 |
| 25/06/2017 | 04:00:00 | 4031.4 | 649910 | 2.395 | 0.124 | 648071 | 0 | 77 | 0.030 | 0.075 | 0.049 | 0.026 | 0.022 | 47 |
| 25/06/2017 | 05:00:00 | 4031.4 | 649910 | 2.395 | 0.124 | 648071 | 0 | 77 | 0.030 | 0.075 | 0.049 | 0.026 | 0.022 | 47 |
| 25/06/2017 | 06:00:00 | 4031.4 | 649910 | 2.397 | 0.123 | 648071 | 0 | 77 | 0.030 | 0.075 | 0.048 | 0.025 | 0.021 | 46 |
| 25/06/2017 | 07:00:00 | 4031.4 | 649910 | 2.397 | 0.124 | 648071 | 0 | 77 | 0.030 | 0.075 | 0.049 | 0.026 | 0.022 | 47 |
| 25/06/2017 | 08:00:00 | 4031.4 | 649910 | 2.397 | 0.121 | 648071 | 0 | 76 | 0.030 | 0.075 | 0.046 | 0.023 | 0.021 | 44 |
| 25/06/2017 | 09:00:00 | 4031.4 | 649910 | 2.398 | 0.122 | 648071 | 0 | 76 | 0.030 | 0.075 | 0.047 | 0.024 | 0.021 | 45 |
| 25/06/2017 | 10:00:00 | 4031.4 | 649910 | 2.397 | 0.121 | 648071 | 0 | 76 | 0.030 | 0.075 | 0.046 | 0.023 | 0.021 | 44 |
| 25/06/2017 | 11:00:00 | 4031.4 | 649910 | 2.397 | 0.12 | 648071 | 0 | 75 | 0.030 | 0.075 | 0.045 | 0.023 | 0.021 | 43 |
| 25/06/2017 | 12:00:00 | 4031.4 | 649910 | 2.398 | 0.119 | 648071 | 0 | 75 | 0.030 | 0.075 | 0.044 | 0.022 | 0.021 | 42 |
| 25/06/2017 | 13:00:00 | 4031.4 | 649910 | 2.399 | 0.119 | 648071 | 0 | 75 | 0.030 | 0.075 | 0.044 | 0.022 | 0.021 | 42 |
| 25/06/2017 | 14:00:00 | 4031.4 | 649910 | 2.398 | 0.118 | 648071 | 0 | 75 | 0.030 | 0.075 | 0.043 | 0.021 | 0.020 | 41 |
| 25/06/2017 | 15:00:00 | 4031.4 | 649910 | 2.4 | 0.118 | 648071 | 0 | 75 | 0.030 | 0.075 | 0.043 | 0.021 | 0.020 | 41 |
| 25/06/2017 | 16:00:00 | 4031.4 | 649910 | 2.403 | 0.118 | 648071 | 0 | 75 | 0.030 | 0.075 | 0.043 | 0.021 | 0.020 | 41 |
| 25/06/2017 | 17:00:00 | 4031.4 | 649910 | 2.402 | 0.118 | 648071 | 0 | 75 | 0.030 | 0.075 | 0.043 | 0.021 | 0.020 | 41 |
| 25/06/2017 | 18:00:00 | 4031.4 | 649910 | 2.403 | 0.118 | 648071 | 0 | 75 | 0.030 | 0.075 | 0.043 | 0.021 | 0.020 | 41 |
| 25/06/2017 | 19:00:00 | 4031.4 | 649910 | 2.404 | 0.118 | 648071 | 0 | 75 | 0.030 | 0.075 | 0.043 | 0.021 | 0.020 | 41 |
| 25/06/2017 | 20:00:00 | 4031.4 | 649910 | 2.404 | 0.118 | 648071 | 0 | 75 | 0.030 | 0.075 | 0.043 | 0.021 | 0.020 | 41 |
| 25/06/2017 | 21:00:00 | 4031.4 | 649910 | 2.405 | 0.116 | 648071 | 0 | 74 | 0.030 | 0.075 | 0.041 | 0.020 | 0.020 | 39 |
| 25/06/2017 | 22:00:00 | 4031.4 | 649910 | 2.405 | 0.118 | 648071 | 0 | 75 | 0.030 | 0.075 | 0.043 | 0.021 | 0.020 | 41 |
| 25/06/2017 | 23:00:00 | 4031.4 | 649910 | 2.406 | 0.118 | 648071 | 0 | 75 | 0.030 | 0.075 | 0.043 | 0.021 | 0.020 | 41 |
| 26/06/2017 | 00:00:00 | 4031.4 | 649910 | 2.406 | 0.118 | 648071 | 0 | 75 | 0.030 | 0.075 | 0.043 | 0.021 | 0.020 | 41 |
| 26/06/2017 | 01:00:00 | 4031.4 | 649910 | 2.407 | 0.118 | 648071 | 0 | 75 | 0.030 | 0.075 | 0.043 | 0.021 | 0.020 | 41 |
| 26/06/2017 | 02:00:00 | 4031.4 | 649910 | 2.409 | 0.118 | 648071 | 0 | 75 | 0.030 | 0.075 | 0.043 | 0.021 | 0.020 | 41 |
| 26/06/2017 | 03:00:00 | 4031.4 | 649910 | 2.408 | 0.117 | 648071 | 0 | 74 | 0.030 | 0.075 | 0.042 | 0.020 | 0.020 | 40 |
| 26/06/2017 | 04:00:00 | 4031.4 | 649910 | 2.41 | 0.118 | 648071 | 0 | 75 | 0.030 | 0.075 | 0.043 | 0.021 | 0.020 | 41 |
| 26/06/2017 | 05:00:00 | 4031.4 | 649910 | 2.41 | 0.118 | 648071 | 0 | 75 | 0.030 | 0.075 | 0.043 | 0.021 | 0.020 | 41 |
| 26/06/2017 | 06:00:00 | 4031.4 | 649910 | 2.41 | 0.118 | 648071 | 0 | 75 | 0.030 | 0.075 | 0.043 | 0.021 | 0.020 | 41 |
| 26/06/2017 | 07:00:00 | 4031.4 | 649910 | 2.41 | 0.118 | 648071 | 0 | 75 | 0.030 | 0.075 | 0.043 | 0.021 | 0.020 | 41 |
| 26/06/2017 | 08:00:00 | 4031.4 | 649910 | 2.411 | 0.118 | 648071 | 0 | 75 | 0.030 | 0.075 | 0.043 | | | |

| | | | | | | | | | | | | | | |
|------------|----------|---------|--------|-------|-------|--------|-----|-----|-------|-------|-------|-------|-------|-----|
| 26/06/2017 | 22:00:00 | 4031.4 | 649910 | 2.417 | 0.115 | 648071 | 0 | 74 | 0.030 | 0.075 | 0.040 | 0.019 | 0.020 | 38 |
| 26/06/2017 | 23:00:00 | 4031.4 | 649910 | 2.418 | 0.115 | 648071 | 0 | 74 | 0.030 | 0.075 | 0.040 | 0.019 | 0.020 | 38 |
| 27/06/2017 | 00:00:00 | 4031.4 | 649910 | 2.42 | 0.116 | 648071 | 0 | 74 | 0.030 | 0.075 | 0.041 | 0.020 | 0.020 | 39 |
| 27/06/2017 | 01:00:00 | 4031.4 | 649910 | 2.422 | 0.118 | 648071 | 0 | 75 | 0.030 | 0.075 | 0.043 | 0.021 | 0.020 | 41 |
| 27/06/2017 | 02:00:00 | 4031.4 | 649910 | 2.423 | 0.119 | 648071 | 0 | 75 | 0.030 | 0.075 | 0.044 | 0.022 | 0.021 | 42 |
| 27/06/2017 | 03:00:00 | 4031.4 | 649910 | 2.427 | 0.12 | 648071 | 0 | 75 | 0.030 | 0.075 | 0.045 | 0.023 | 0.021 | 43 |
| 27/06/2017 | 04:00:00 | 4031.4 | 649910 | 2.43 | 0.122 | 648071 | 0 | 76 | 0.030 | 0.075 | 0.047 | 0.024 | 0.021 | 45 |
| 27/06/2017 | 05:00:00 | 4031.4 | 649910 | 2.435 | 0.126 | 648071 | 0 | 78 | 0.030 | 0.075 | 0.051 | 0.027 | 0.022 | 49 |
| 27/06/2017 | 06:00:00 | 4031.4 | 649910 | 2.438 | 0.126 | 648071 | 0 | 78 | 0.030 | 0.075 | 0.051 | 0.027 | 0.022 | 49 |
| 27/06/2017 | 07:00:00 | 4031.4 | 649910 | 2.439 | 0.126 | 648071 | 0 | 78 | 0.030 | 0.075 | 0.051 | 0.027 | 0.022 | 49 |
| 27/06/2017 | 08:00:00 | 4031.4 | 649910 | 2.437 | 0.123 | 648071 | 0 | 77 | 0.030 | 0.075 | 0.048 | 0.025 | 0.021 | 46 |
| 27/06/2017 | 09:00:00 | 4031.4 | 649910 | 2.435 | 0.122 | 648071 | 0 | 76 | 0.030 | 0.075 | 0.047 | 0.024 | 0.021 | 45 |
| 27/06/2017 | 10:00:00 | 4031.4 | 649910 | 2.437 | 0.124 | 648071 | 0 | 77 | 0.030 | 0.075 | 0.049 | 0.026 | 0.022 | 47 |
| 27/06/2017 | 11:00:00 | 4031.4 | 649910 | 2.438 | 0.125 | 648071 | 0 | 77 | 0.030 | 0.075 | 0.050 | 0.026 | 0.022 | 48 |
| 27/06/2017 | 12:00:00 | 4031.4 | 649910 | 2.442 | 0.126 | 648071 | 0 | 78 | 0.030 | 0.075 | 0.051 | 0.027 | 0.022 | 49 |
| 27/06/2017 | 13:00:00 | 4031.4 | 649910 | 2.444 | 0.128 | 648071 | 0 | 79 | 0.030 | 0.075 | 0.053 | 0.029 | 0.023 | 51 |
| 27/06/2017 | 14:00:00 | 4031.4 | 649910 | 2.45 | 0.132 | 648071 | 0 | 81 | 0.030 | 0.075 | 0.057 | 0.032 | 0.023 | 56 |
| 27/06/2017 | 15:00:00 | 4031.77 | 649927 | 2.003 | 0.138 | 648089 | 18 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 27/06/2017 | 16:00:00 | 4032.77 | 649988 | 2.001 | 0.152 | 648149 | 60 | 91 | 0.030 | 0.075 | 0.077 | 0.050 | 0.038 | 89 |
| 27/06/2017 | 17:00:00 | 4033.77 | 650073 | 2.015 | 0.174 | 648234 | 85 | 106 | 0.030 | 0.075 | 0.099 | 0.074 | 0.041 | 114 |
| 27/06/2017 | 18:00:00 | 4034.77 | 650202 | 2.002 | 0.192 | 648363 | 129 | 121 | 0.030 | 0.075 | 0.117 | 0.095 | 0.043 | 137 |
| 27/06/2017 | 19:00:00 | 4035.77 | 650343 | 1.999 | 0.195 | 648504 | 141 | 123 | 0.030 | 0.075 | 0.120 | 0.098 | 0.043 | 141 |
| 27/06/2017 | 20:00:00 | 4036.77 | 650481 | 2.001 | 0.187 | 648641 | 137 | 116 | 0.030 | 0.075 | 0.112 | 0.089 | 0.042 | 131 |
| 27/06/2017 | 21:00:00 | 4037.77 | 650602 | 1.993 | 0.177 | 648761 | 120 | 109 | 0.030 | 0.075 | 0.102 | 0.077 | 0.041 | 118 |
| 27/06/2017 | 22:00:00 | 4038.77 | 650706 | 1.995 | 0.169 | 648866 | 105 | 103 | 0.030 | 0.075 | 0.094 | 0.068 | 0.040 | 108 |
| 27/06/2017 | 23:00:00 | 4039.77 | 650798 | 2.001 | 0.162 | 648957 | 91 | 98 | 0.030 | 0.075 | 0.087 | 0.061 | 0.039 | 100 |
| 28/06/2017 | 00:00:00 | 4040.77 | 650878 | 2 | 0.155 | 649037 | 80 | 93 | 0.030 | 0.075 | 0.080 | 0.053 | 0.039 | 92 |
| 28/06/2017 | 01:00:00 | 4041.77 | 650951 | 1.995 | 0.151 | 649110 | 73 | 91 | 0.030 | 0.075 | 0.076 | 0.049 | 0.038 | 88 |
| 28/06/2017 | 02:00:00 | 4042.77 | 651017 | 2 | 0.147 | 649176 | 66 | 88 | 0.030 | 0.075 | 0.072 | 0.046 | 0.038 | 83 |
| 28/06/2017 | 03:00:00 | 4043.77 | 651078 | 2.005 | 0.143 | 649237 | 61 | 86 | 0.030 | 0.075 | 0.068 | 0.042 | 0.037 | 79 |
| 28/06/2017 | 04:00:00 | 4044.77 | 651135 | 2.001 | 0.141 | 649293 | 56 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 28/06/2017 | 05:00:00 | 4045.77 | 651188 | 2.002 | 0.138 | 649346 | 53 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 28/06/2017 | 06:00:00 | 4046.77 | 651238 | 1.997 | 0.137 | 649396 | 50 | 83 | 0.030 | 0.075 | 0.062 | 0.036 | 0.036 | 73 |
| 28/06/2017 | 07:00:00 | 4047.77 | 651286 | 2 | 0.136 | 649444 | 48 | 83 | 0.030 | 0.075 | 0.061 | 0.036 | 0.036 | 72 |
| 28/06/2017 | 08:00:00 | 4048.77 | 651331 | 2 | 0.134 | 649489 | 45 | 82 | 0.030 | 0.075 | 0.059 | 0.034 | 0.036 | 70 |
| 28/06/2017 | 09:00:00 | 4049.77 | 651375 | 2 | 0.133 | 649533 | 44 | 81 | 0.030 | 0.075 | 0.058 | 0.033 | 0.036 | 69 |
| 28/06/2017 | 10:00:00 | 4050.77 | 651418 | 2.001 | 0.132 | 649575 | 42 | 81 | 0.030 | 0.075 | 0.057 | 0.032 | 0.036 | 68 |
| 28/06/2017 | 11:00:00 | 4051.77 | 651459 | 2 | 0.132 | 649617 | 42 | 81 | 0.030 | 0.075 | 0.057 | 0.032 | 0.036 | 68 |
| 28/06/2017 | 12:00:00 | 4052.77 | 651499 | 2.001 | 0.131 | 649657 | 40 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 28/06/2017 | 13:00:00 | 4052.97 | 651507 | 2.389 | 0.13 | 649664 | 7 | 80 | 0.030 | 0.075 | 0.055 | 0.030 | 0.035 | 66 |
| 28/06/2017 | 14:00:00 | 4052.97 | 651507 | 2.391 | 0.128 | 649664 | 0 | 79 | 0.030 | 0.075 | 0.053 | 0.029 | 0.035 | 64 |
| 28/06/2017 | 15:00:00 | 4052.97 | 651507 | 2.391 | 0.127 | 649664 | 0 | 78 | 0.030 | 0.075 | 0.052 | 0.028 | 0.035 | 63 |
| 28/06/2017 | 16:00:00 | 4052.97 | 651507 | 2.391 | 0.126 | 649664 | 0 | 78 | 0.030 | 0.075 | 0.051 | 0.027 | 0.035 | 62 |
| 28/06/2017 | 17:00:00 | 4052.97 | 651507 | 2.391 | 0.127 | 649664 | 0 | 78 | 0.030 | 0.075 | 0.052 | 0.028 | 0.035 | 63 |
| 28/06/2017 | 18:00:00 | 4052.97 | 651507 | 2.393 | 0.126 | 649664 | 0 | 78 | 0.030 | 0.075 | 0.051 | 0.027 | 0.035 | 62 |
| 28/06/2017 | 19:00:00 | 4052.97 | 651507 | 2.391 | 0.125 | 649664 | 0 | 77 | 0.030 | 0.075 | 0.050 | 0.026 | 0.035 | 61 |
| 28/06/2017 | 20:00:00 | 4052.97 | 651507 | 2.393 | 0.125 | 649664 | 0 | 77 | 0.030 | 0.075 | 0.050 | 0.026 | 0.035 | 61 |
| 28/06/2017 | 21:00:00 | 4052.97 | 651507 | 2.395 | 0.126 | 649664 | 0 | 78 | 0.030 | 0.075 | 0.051 | 0.027 | 0.035 | 62 |
| 28/06/2017 | 22:00:00 | 4052.97 | 651507 | 2.406 | 0.131 | 649664 | 0 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 28/06/2017 | 23:00:00 | 4053.21 | 651518 | 2.055 | 0.137 | 649675 | 11 | 83 | 0.030 | 0.075 | 0.062 | 0.036 | 0.036 | 73 |
| 29/06/2017 | 00:00:00 | 4054.21 | 651567 | 2.016 | 0.139 | 649724 | 49 | 84 | 0.030 | 0.075 | 0.064 | 0.038 | 0.037 | 75 |
| 29/06/2017 | 01:00:00 | 4055.21 | 651624 | 1.997 | 0.147 | 649781 | 57 | 88 | 0.030 | 0.075 | 0.072 | 0.046 | 0.038 | 83 |
| 29/06/2017 | 02:00:00 | 4056.21 | 651694 | 2.003 | 0.16 | 649851 | 70 | 96 | 0.030 | 0.075 | 0.085 | 0.059 | 0.039 | 98 |
| 29/06/2017 | 03:00:00 | 4057.21 | 651807 | 2.025 | 0.207 | 649964 | 113 | 134 | 0.030 | 0.075 | 0.132 | 0.113 | 0.045 | 158 |
| 29/06/2017 | 04:00:00 | 4058.21 | 652055 | 2.048 | 0.284 | 650211 | 247 | 228 | 0.030 | 0.075 | 0.209 | 0.226 | 0.052 | 278 |
| 29/06/2017 | 05:00:00 | 4059.21 | 652430 | 2.228 | 0.312 | 650585 | 374 | 271 | 0.030 | 0.075 | 0.237 | 0.273 | 0.055 | 327 |
| 29/06/2017 | 06:00:00 | 4060.21 | 652818 | 2.201 | 0.307 | 650972 | 387 | 263 | 0.030 | 0.075 | 0.232 | 0.264 | 0.054 | 318 |
| 29/06/2017 | 07:00:00 | 4061.21 | 653205 | 2.233 | 0.313 | 651359 | 387 | 273 | 0.030 | 0.075 | 0.238 | 0.274 | 0.055 | 329 |
| 29/06/2017 | 08:00:00 | 4062.21 | 653593 | 2.285 | 0.331 | 651746 | 387 | 304 | 0.030 | 0.075 | 0.256 | 0.306 | 0.056 | 362 |
| 29/06/2017 | 09:00:00 | 4063.21 | 653980 | 2.288 | 0.333 | 652133 | 387 | 307 | 0.030 | 0.075 | 0.258 | 0.310 | 0.057 | 366 |
| 29/06/2017 | 10:00:00 | 4064.21 | 654368 | 2.343 | 0.367 | 652520 | 387 | 372 | 0.030 | 0.075 | 0.292 | 0.373 | 0.059 | 432 |
| 29/06/2017 | 11:00:00 | 4065.21 | 654756 | 2.365 | 0.391 | 652907 | 387 | 422 | 0.030 | 0.075 | 0.316 | 0.420 | 0.061 | 481 |
| 29/06/2017 | 12:00:00 | 4066.21 | 655144 | 2.336 | 0.362 | 653294 | 387 | 362 | 0.030 | 0.075 | 0.287 | 0.363 | 0.059 | 422 |
| 29/06/2017 | 13:00:00 | 4067.21 | 655532 | 2.274 | 0.326 | 653681 | 387 | 295 | 0.030 | 0.075 | 0.251 | 0.297 | 0.056 | 353 |
| 29/06/2017 | 14:00:00 | 4068.21 | 655917 | 1.988 | 0.297 | 654066 | 385 | 247 | 0.030 | 0.075 | 0.222 | 0.247 | 0.053 | 301 |
| 29/06/2017 | 15:00:00 | 4069.21 | 656262 | 1.987 | 0.279 | 654409 | 343 | 221 | 0.030 | 0.075 | 0.204 | 0.218 | 0.052 | 269 |
| 29/06/2017 | 16:00:00 | 4070.21 | 656559 | 1.997 | 0.262 | 654706 | 297 | 197 | 0.030 | 0.075 | 0.187 | 0.191 | 0.050 | 241 |
| 29/06/2017 | 17:00:00 | 4071.21 | 656822 | 1.986 | 0.249 | 654969 | 263 | 181 | 0.030 | 0.075 | 0.174 | 0.171 | 0.049 | 220 |
| 29/06/2017 | 18:00:00 | 4072.21 | 657063 | 2.002 | 0.239 | 655208 | 239 | 169 | 0.030 | 0.075 | 0.164 | 0.157 | 0.048 | 205 |
| 29/06/2017 | 19:00:00 | 4073.21 | 657288 | 1.995 | 0.232 | 655432 | 224 | 160 | 0.030 | 0.075 | 0.157 | 0.147 | 0.047 | 194 |
| 29/06/2017 | 20:00:00 | 4074.21 | 657508 | 2.005 | 0.231 | 655652 | 220 | 159 | 0.030 | 0.075 | 0.156 | 0.146 | 0.047 | 193 |
| 29/06/2017 | 21:00:00 | 4075.21 | 657723 | 1.994 | 0.227 | 655867 | 215 | 155 | 0.030 | 0.075 | 0.152 | 0.140 | 0.047 | 187 |
| 29/06/2017 | 22:00:00 | 4076.21 | 657926 | 1.993 | 0.22 | 656069 | 202 | 147 | 0.030 | 0.075 | 0.145 | 0.130 | 0.046 | 176 |
| 29/06/2017 | 23:00:00 | 4077.21 | 658116 | 1.998 | 0.215 | 656259 | 190 | 142 | 0.030 | 0.075 | 0.140 | 0.124 | 0.045 | 169 |
| 30/06/2017 | 00:00:00 | 4078.21 | 658294 | 1.997 | 0.21 | 656436 | 177 | 137 | 0.030 | 0.075 | 0.135 | 0.117 | 0.045 | 162 |
| 30/06/2017 | 01:00:00 | 4079.21 | 658461 | 1.997 | 0.207 | 656603 | 167 | 134 | 0.030 | 0.075 | 0.132 | 0.113 | 0.045 | 158 |
| 30/06/2017 | 02:00:00 | 4080.21 | 658621 | 1.997 | 0.203 | 656762 | 159 | 131 | 0.030 | 0.075 | 0.128 | 0.108 | 0.044 | 152 |
| 30/06/2017 | 03:00:00 | 4081.21 | 658776 | 2.002 | 0.202 | 656917 | 155 | 130 | 0.030 | 0.075 | 0.127 | 0.107 | 0.044 | 151 |
| 3 | | | | | | | | | | | | | | |

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|------------|----------|---------|--------|-------|-------|--------|-----|-----|-------|-------|-------|-------|-------|-----|
| 30/06/2017 | 18:00:00 | 4096.21 | 660847 | 1.997 | 0.176 | 658982 | 112 | 108 | 0.030 | 0.075 | 0.101 | 0.076 | 0.041 | 117 |
| 30/06/2017 | 19:00:00 | 4097.21 | 660955 | 2 | 0.175 | 659091 | 109 | 107 | 0.030 | 0.075 | 0.100 | 0.075 | 0.041 | 116 |
| 30/06/2017 | 20:00:00 | 4098.21 | 661060 | 1.999 | 0.172 | 659195 | 104 | 105 | 0.030 | 0.075 | 0.097 | 0.071 | 0.041 | 112 |
| 30/06/2017 | 21:00:00 | 4099.21 | 661163 | 2 | 0.17 | 659298 | 103 | 103 | 0.030 | 0.075 | 0.095 | 0.069 | 0.040 | 110 |
| 30/06/2017 | 22:00:00 | 4100.21 | 661262 | 2.001 | 0.169 | 659397 | 99 | 103 | 0.030 | 0.075 | 0.094 | 0.068 | 0.040 | 108 |
| 30/06/2017 | 23:00:00 | 4101.21 | 661358 | 2 | 0.168 | 659493 | 96 | 102 | 0.030 | 0.075 | 0.093 | 0.067 | 0.040 | 107 |
| 01/07/2017 | 00:00:00 | 4102.21 | 661452 | 2.002 | 0.166 | 659586 | 93 | 100 | 0.030 | 0.075 | 0.091 | 0.065 | 0.040 | 105 |
| 01/07/2017 | 01:00:00 | 4103.21 | 661544 | 2 | 0.165 | 659677 | 91 | 100 | 0.030 | 0.075 | 0.090 | 0.064 | 0.040 | 104 |
| 01/07/2017 | 02:00:00 | 4104.21 | 661633 | 2.002 | 0.164 | 659767 | 90 | 99 | 0.030 | 0.075 | 0.089 | 0.063 | 0.040 | 102 |
| 01/07/2017 | 03:00:00 | 4105.21 | 661721 | 1.998 | 0.163 | 659854 | 87 | 98 | 0.030 | 0.075 | 0.088 | 0.062 | 0.040 | 101 |
| 01/07/2017 | 04:00:00 | 4106.21 | 661806 | 2.002 | 0.161 | 659939 | 85 | 97 | 0.030 | 0.075 | 0.086 | 0.060 | 0.039 | 99 |
| 01/07/2017 | 05:00:00 | 4107.21 | 661890 | 2 | 0.16 | 660023 | 84 | 96 | 0.030 | 0.075 | 0.085 | 0.059 | 0.039 | 98 |
| 01/07/2017 | 06:00:00 | 4108.21 | 661972 | 2.003 | 0.16 | 660105 | 82 | 96 | 0.030 | 0.075 | 0.085 | 0.059 | 0.039 | 98 |
| 01/07/2017 | 07:00:00 | 4109.21 | 662053 | 1.998 | 0.159 | 660186 | 81 | 96 | 0.030 | 0.075 | 0.084 | 0.058 | 0.039 | 97 |
| 01/07/2017 | 08:00:00 | 4110.21 | 662133 | 2.003 | 0.158 | 660265 | 79 | 95 | 0.030 | 0.075 | 0.083 | 0.056 | 0.039 | 95 |
| 01/07/2017 | 09:00:00 | 4111.21 | 662211 | 1.996 | 0.157 | 660343 | 78 | 94 | 0.030 | 0.075 | 0.082 | 0.055 | 0.039 | 94 |
| 01/07/2017 | 10:00:00 | 4112.21 | 662288 | 2 | 0.156 | 660420 | 77 | 94 | 0.030 | 0.075 | 0.081 | 0.054 | 0.039 | 93 |
| 01/07/2017 | 11:00:00 | 4113.21 | 662363 | 2.002 | 0.154 | 660495 | 75 | 93 | 0.030 | 0.075 | 0.079 | 0.052 | 0.038 | 91 |
| 01/07/2017 | 12:00:00 | 4114.21 | 662436 | 2.002 | 0.152 | 660568 | 73 | 91 | 0.030 | 0.075 | 0.077 | 0.050 | 0.038 | 89 |
| 01/07/2017 | 13:00:00 | 4115.21 | 662507 | 2 | 0.151 | 660638 | 70 | 91 | 0.030 | 0.075 | 0.076 | 0.049 | 0.038 | 88 |
| 01/07/2017 | 14:00:00 | 4116.21 | 662574 | 2.001 | 0.151 | 660706 | 68 | 91 | 0.030 | 0.075 | 0.076 | 0.049 | 0.038 | 88 |
| 01/07/2017 | 15:00:00 | 4117.21 | 662641 | 2.002 | 0.149 | 660772 | 66 | 90 | 0.030 | 0.075 | 0.074 | 0.048 | 0.038 | 85 |
| 01/07/2017 | 16:00:00 | 4118.21 | 662707 | 2.005 | 0.148 | 660838 | 66 | 89 | 0.030 | 0.075 | 0.073 | 0.047 | 0.038 | 84 |
| 01/07/2017 | 17:00:00 | 4119.21 | 662773 | 2.002 | 0.148 | 660904 | 66 | 89 | 0.030 | 0.075 | 0.073 | 0.047 | 0.038 | 84 |
| 01/07/2017 | 18:00:00 | 4120.21 | 662838 | 1.997 | 0.15 | 660969 | 65 | 90 | 0.030 | 0.075 | 0.075 | 0.049 | 0.038 | 86 |
| 01/07/2017 | 19:00:00 | 4121.21 | 662906 | 1.999 | 0.151 | 661037 | 68 | 91 | 0.030 | 0.075 | 0.076 | 0.049 | 0.038 | 88 |
| 01/07/2017 | 20:00:00 | 4122.21 | 662976 | 1.999 | 0.152 | 661107 | 70 | 91 | 0.030 | 0.075 | 0.077 | 0.050 | 0.038 | 89 |
| 01/07/2017 | 21:00:00 | 4123.21 | 663045 | 1.997 | 0.151 | 661175 | 68 | 91 | 0.030 | 0.075 | 0.076 | 0.049 | 0.038 | 88 |
| 01/07/2017 | 22:00:00 | 4124.21 | 663111 | 1.996 | 0.149 | 661241 | 66 | 90 | 0.030 | 0.075 | 0.074 | 0.048 | 0.038 | 85 |
| 01/07/2017 | 23:00:00 | 4125.21 | 663176 | 2.002 | 0.148 | 661306 | 65 | 89 | 0.030 | 0.075 | 0.073 | 0.047 | 0.038 | 84 |
| 02/07/2017 | 00:00:00 | 4126.21 | 663239 | 2 | 0.148 | 661369 | 63 | 89 | 0.030 | 0.075 | 0.073 | 0.047 | 0.038 | 84 |
| 02/07/2017 | 01:00:00 | 4127.21 | 663302 | 2.001 | 0.147 | 661431 | 62 | 88 | 0.030 | 0.075 | 0.072 | 0.046 | 0.038 | 83 |
| 02/07/2017 | 02:00:00 | 4128.21 | 663363 | 2.001 | 0.147 | 661492 | 61 | 88 | 0.030 | 0.075 | 0.072 | 0.046 | 0.038 | 83 |
| 02/07/2017 | 03:00:00 | 4129.21 | 663423 | 2.002 | 0.146 | 661553 | 61 | 88 | 0.030 | 0.075 | 0.071 | 0.045 | 0.037 | 82 |
| 02/07/2017 | 04:00:00 | 4130.21 | 663483 | 2.003 | 0.146 | 661612 | 59 | 88 | 0.030 | 0.075 | 0.071 | 0.045 | 0.037 | 82 |
| 02/07/2017 | 05:00:00 | 4131.21 | 663542 | 1.997 | 0.146 | 661671 | 59 | 88 | 0.030 | 0.075 | 0.071 | 0.045 | 0.037 | 82 |
| 02/07/2017 | 06:00:00 | 4132.21 | 663600 | 2.002 | 0.144 | 661729 | 58 | 87 | 0.030 | 0.075 | 0.069 | 0.043 | 0.037 | 80 |
| 02/07/2017 | 07:00:00 | 4133.21 | 663658 | 2.003 | 0.144 | 661787 | 58 | 87 | 0.030 | 0.075 | 0.069 | 0.043 | 0.037 | 80 |
| 02/07/2017 | 08:00:00 | 4134.21 | 663715 | 2.003 | 0.144 | 661844 | 57 | 87 | 0.030 | 0.075 | 0.069 | 0.043 | 0.037 | 80 |
| 02/07/2017 | 09:00:00 | 4135.21 | 663772 | 1.998 | 0.143 | 661900 | 56 | 86 | 0.030 | 0.075 | 0.068 | 0.042 | 0.037 | 79 |
| 02/07/2017 | 10:00:00 | 4136.21 | 663828 | 2.003 | 0.143 | 661956 | 56 | 86 | 0.030 | 0.075 | 0.068 | 0.042 | 0.037 | 79 |
| 02/07/2017 | 11:00:00 | 4137.21 | 663883 | 1.998 | 0.142 | 662012 | 56 | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 02/07/2017 | 12:00:00 | 4138.21 | 663938 | 2.001 | 0.142 | 662066 | 54 | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 02/07/2017 | 13:00:00 | 4139.21 | 663992 | 1.997 | 0.141 | 662120 | 54 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 02/07/2017 | 14:00:00 | 4140.21 | 664045 | 2.002 | 0.139 | 662173 | 53 | 84 | 0.030 | 0.075 | 0.064 | 0.038 | 0.037 | 75 |
| 02/07/2017 | 15:00:00 | 4141.21 | 664097 | 2 | 0.139 | 662225 | 52 | 84 | 0.030 | 0.075 | 0.064 | 0.038 | 0.037 | 75 |
| 02/07/2017 | 16:00:00 | 4142.21 | 664148 | 2 | 0.14 | 662276 | 51 | 85 | 0.030 | 0.075 | 0.065 | 0.039 | 0.037 | 76 |
| 02/07/2017 | 17:00:00 | 4143.21 | 664198 | 2 | 0.138 | 662326 | 50 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 02/07/2017 | 18:00:00 | 4144.22 | 664247 | 2.001 | 0.138 | 662375 | 49 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 02/07/2017 | 19:00:00 | 4145.22 | 664296 | 1.999 | 0.138 | 662424 | 49 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 02/07/2017 | 20:00:00 | 4146.22 | 664345 | 2.003 | 0.138 | 662472 | 48 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 02/07/2017 | 21:00:00 | 4147.22 | 664393 | 1.996 | 0.138 | 662521 | 49 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 02/07/2017 | 22:00:00 | 4148.22 | 664442 | 1.998 | 0.139 | 662569 | 48 | 84 | 0.030 | 0.075 | 0.064 | 0.038 | 0.037 | 75 |
| 02/07/2017 | 23:00:00 | 4149.22 | 664491 | 2.002 | 0.141 | 662618 | 49 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 03/07/2017 | 00:00:00 | 4150.22 | 664545 | 2 | 0.143 | 662672 | 54 | 86 | 0.030 | 0.075 | 0.068 | 0.042 | 0.037 | 79 |
| 03/07/2017 | 01:00:00 | 4151.22 | 664601 | 2 | 0.144 | 662728 | 56 | 87 | 0.030 | 0.075 | 0.069 | 0.043 | 0.037 | 80 |
| 03/07/2017 | 02:00:00 | 4152.22 | 664656 | 1.997 | 0.143 | 662783 | 55 | 86 | 0.030 | 0.075 | 0.068 | 0.042 | 0.037 | 79 |
| 03/07/2017 | 03:00:00 | 4153.22 | 664710 | 1.997 | 0.142 | 662837 | 54 | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 03/07/2017 | 04:00:00 | 4154.22 | 664765 | 1.998 | 0.142 | 662891 | 54 | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 03/07/2017 | 05:00:00 | 4155.22 | 664819 | 2.003 | 0.142 | 662945 | 54 | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 03/07/2017 | 06:00:00 | 4156.22 | 664873 | 2.002 | 0.143 | 663000 | 55 | 86 | 0.030 | 0.075 | 0.068 | 0.042 | 0.037 | 79 |
| 03/07/2017 | 07:00:00 | 4157.22 | 664928 | 1.997 | 0.142 | 663054 | 54 | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 03/07/2017 | 08:00:00 | 4158.22 | 664982 | 2 | 0.141 | 663108 | 54 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 03/07/2017 | 09:00:00 | 4159.22 | 665035 | 2.003 | 0.139 | 663161 | 53 | 84 | 0.030 | 0.075 | 0.064 | 0.038 | 0.037 | 75 |
| 03/07/2017 | 10:00:00 | 4160.22 | 665087 | 2.003 | 0.139 | 663213 | 52 | 84 | 0.030 | 0.075 | 0.064 | 0.038 | 0.037 | 75 |
| 03/07/2017 | 11:00:00 | 4161.22 | 665138 | 2.001 | 0.139 | 663264 | 51 | 84 | 0.030 | 0.075 | 0.064 | 0.038 | 0.037 | 75 |
| 03/07/2017 | 12:00:00 | 4162.22 | 665188 | 2.002 | 0.138 | 663313 | 49 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 03/07/2017 | 13:00:00 | 4163.22 | 665236 | 1.997 | 0.137 | 663362 | 49 | 83 | 0.030 | 0.075 | 0.062 | 0.036 | 0.036 | 73 |
| 03/07/2017 | 14:00:00 | 4164.22 | 665284 | 1.995 | 0.136 | 663409 | 47 | 83 | 0.030 | 0.075 | 0.061 | 0.036 | 0.036 | 72 |
| 03/07/2017 | 15:00:00 | 4165.22 | 665329 | 1.996 | 0.136 | 663455 | 46 | 83 | 0.030 | 0.075 | 0.061 | 0.036 | 0.036 | 72 |
| 03/07/2017 | 16:00:00 | 4166.22 | 665374 | 2.002 | 0.135 | 663499 | 44 | 82 | 0.030 | 0.075 | 0.060 | 0.035 | 0.036 | 71 |
| 03/07/2017 | 17:00:00 | 4167.22 | 665418 | 2 | 0.135 | 663543 | 44 | 82 | 0.030 | 0.075 | 0.060 | 0.035 | 0.036 | 71 |
| 03/07/2017 | 18:00:00 | 4168.22 | 665460 | 2.002 | 0.133 | 663585 | 42 | 81 | 0.030 | 0.075 | 0.058 | 0.033 | 0.036 | 69 |
| 03/07/2017 | 19:00:00 | 4169.22 | 665503 | 1.997 | 0.133 | 663627 | 42 | 81 | 0.030 | 0.075 | 0.058 | 0.033 | 0.036 | 69 |
| 03/07/2017 | 20:00:00 | 4170.22 | 665544 | 2.002 | 0.133 | 663669 | 42 | 81 | 0.030 | 0.075 | 0.058 | 0.033 | 0.036 | 69 |
| 03/07/2017 | 21:00:00 | 4171.22 | 665586 | 2.001 | 0.133 | 663711 | 42 | 81 | 0.030 | 0.075 | 0.058 | 0.033 | 0.036 | 69 |
| 03/07/2017 | 22:00:00 | 4172.22 | 665628 | 2.001 | 0.133 | 663752 | 41 | 81 | 0.030 | 0.075 | 0.058 | 0.033 | 0.036 | 69 |
| 03/07/2017 | 23:00:00 | 4173.22 | 665669 | 1.997 | 0.133 | 663794 | 42 | 81 | 0.030 | 0.075 | 0.058 | 0.033 | 0.036 | 69 |
| 04/07/2017 | 00:00:00 | 4174.22 | 665710 | 1.999 | | | | | | | | | | |

| | | | | | | | | | | | | | | |
|------------|----------|---------|--------|-------|-------|--------|-----|-----|-------|-------|-------|-------|-------|-----|
| 04/07/2017 | 14:00:00 | 4188.22 | 666352 | 2.001 | 0.149 | 664475 | 60 | 90 | 0.030 | 0.075 | 0.074 | 0.048 | 0.038 | 85 |
| 04/07/2017 | 15:00:00 | 4189.22 | 666424 | 2.002 | 0.157 | 664546 | 71 | 94 | 0.030 | 0.075 | 0.082 | 0.055 | 0.039 | 94 |
| 04/07/2017 | 16:00:00 | 4190.22 | 666504 | 1.998 | 0.164 | 664627 | 81 | 99 | 0.030 | 0.075 | 0.089 | 0.063 | 0.040 | 102 |
| 04/07/2017 | 17:00:00 | 4191.22 | 666599 | 2 | 0.172 | 664721 | 94 | 105 | 0.030 | 0.075 | 0.097 | 0.071 | 0.041 | 112 |
| 04/07/2017 | 18:00:00 | 4192.22 | 666707 | 2.005 | 0.178 | 664829 | 108 | 109 | 0.030 | 0.075 | 0.103 | 0.078 | 0.041 | 119 |
| 04/07/2017 | 19:00:00 | 4193.22 | 666825 | 2.003 | 0.185 | 664947 | 118 | 115 | 0.030 | 0.075 | 0.110 | 0.086 | 0.042 | 128 |
| 04/07/2017 | 20:00:00 | 4194.22 | 666951 | 1.998 | 0.185 | 665072 | 125 | 115 | 0.030 | 0.075 | 0.110 | 0.086 | 0.042 | 128 |
| 04/07/2017 | 21:00:00 | 4195.22 | 667073 | 1.999 | 0.182 | 665194 | 122 | 112 | 0.030 | 0.075 | 0.107 | 0.083 | 0.042 | 124 |
| 04/07/2017 | 22:00:00 | 4196.22 | 667189 | 2 | 0.178 | 665309 | 115 | 109 | 0.030 | 0.075 | 0.103 | 0.078 | 0.041 | 119 |
| 04/07/2017 | 23:00:00 | 4197.22 | 667296 | 1.996 | 0.174 | 665416 | 107 | 106 | 0.030 | 0.075 | 0.099 | 0.074 | 0.041 | 114 |
| 05/07/2017 | 00:00:00 | 4198.22 | 667395 | 1.997 | 0.17 | 665515 | 99 | 103 | 0.030 | 0.075 | 0.095 | 0.069 | 0.040 | 110 |
| 05/07/2017 | 01:00:00 | 4199.22 | 667489 | 2 | 0.166 | 665609 | 94 | 100 | 0.030 | 0.075 | 0.091 | 0.065 | 0.040 | 105 |
| 05/07/2017 | 02:00:00 | 4200.22 | 667577 | 2 | 0.163 | 665697 | 88 | 98 | 0.030 | 0.075 | 0.088 | 0.062 | 0.040 | 101 |
| 05/07/2017 | 03:00:00 | 4201.22 | 667661 | 1.997 | 0.16 | 665780 | 83 | 96 | 0.030 | 0.075 | 0.085 | 0.059 | 0.039 | 98 |
| 05/07/2017 | 04:00:00 | 4202.22 | 667740 | 2 | 0.158 | 665859 | 79 | 95 | 0.030 | 0.075 | 0.083 | 0.056 | 0.039 | 95 |
| 05/07/2017 | 05:00:00 | 4203.22 | 667816 | 2.002 | 0.157 | 665935 | 76 | 94 | 0.030 | 0.075 | 0.082 | 0.055 | 0.039 | 94 |
| 05/07/2017 | 06:00:00 | 4204.22 | 667889 | 1.997 | 0.154 | 666008 | 73 | 93 | 0.030 | 0.075 | 0.079 | 0.052 | 0.038 | 91 |
| 05/07/2017 | 07:00:00 | 4205.22 | 667960 | 1.998 | 0.152 | 666079 | 71 | 91 | 0.030 | 0.075 | 0.077 | 0.050 | 0.038 | 89 |
| 05/07/2017 | 08:00:00 | 4206.22 | 668028 | 2.001 | 0.151 | 666147 | 68 | 91 | 0.030 | 0.075 | 0.076 | 0.049 | 0.038 | 88 |
| 05/07/2017 | 09:00:00 | 4207.22 | 668094 | 2.003 | 0.15 | 666213 | 66 | 90 | 0.030 | 0.075 | 0.075 | 0.049 | 0.038 | 86 |
| 05/07/2017 | 10:00:00 | 4208.22 | 668158 | 2.003 | 0.148 | 666277 | 64 | 89 | 0.030 | 0.075 | 0.073 | 0.047 | 0.038 | 84 |
| 05/07/2017 | 11:00:00 | 4209.22 | 668220 | 1.997 | 0.146 | 666338 | 61 | 88 | 0.030 | 0.075 | 0.071 | 0.045 | 0.037 | 82 |
| 05/07/2017 | 12:00:00 | 4210.22 | 668279 | 2.002 | 0.146 | 666398 | 60 | 88 | 0.030 | 0.075 | 0.071 | 0.045 | 0.037 | 82 |
| 05/07/2017 | 13:00:00 | 4211.22 | 668337 | 1.997 | 0.145 | 666455 | 57 | 87 | 0.030 | 0.075 | 0.070 | 0.044 | 0.037 | 81 |
| 05/07/2017 | 14:00:00 | 4212.22 | 668393 | 1.999 | 0.143 | 666511 | 56 | 86 | 0.030 | 0.075 | 0.068 | 0.042 | 0.037 | 79 |
| 05/07/2017 | 15:00:00 | 4213.22 | 668448 | 1.999 | 0.142 | 666566 | 55 | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 05/07/2017 | 16:00:00 | 4214.22 | 668501 | 2.003 | 0.141 | 666619 | 53 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 05/07/2017 | 17:00:00 | 4215.22 | 668552 | 1.998 | 0.14 | 666669 | 50 | 85 | 0.030 | 0.075 | 0.065 | 0.039 | 0.037 | 76 |
| 05/07/2017 | 18:00:00 | 4216.22 | 668601 | 1.996 | 0.138 | 666718 | 49 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 05/07/2017 | 19:00:00 | 4217.22 | 668649 | 2.002 | 0.138 | 666766 | 48 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 05/07/2017 | 20:00:00 | 4218.22 | 668696 | 1.999 | 0.138 | 666813 | 47 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 05/07/2017 | 21:00:00 | 4219.22 | 668743 | 2 | 0.137 | 666860 | 47 | 83 | 0.030 | 0.075 | 0.062 | 0.036 | 0.036 | 73 |
| 05/07/2017 | 22:00:00 | 4220.22 | 668790 | 2.002 | 0.137 | 666907 | 47 | 83 | 0.030 | 0.075 | 0.062 | 0.036 | 0.036 | 73 |
| 05/07/2017 | 23:00:00 | 4221.22 | 668836 | 1.999 | 0.137 | 666953 | 46 | 83 | 0.030 | 0.075 | 0.062 | 0.036 | 0.036 | 73 |
| 06/07/2017 | 00:00:00 | 4222.22 | 668882 | 1.999 | 0.137 | 666999 | 46 | 83 | 0.030 | 0.075 | 0.062 | 0.036 | 0.036 | 73 |
| 06/07/2017 | 01:00:00 | 4223.22 | 668927 | 1.998 | 0.137 | 667044 | 45 | 83 | 0.030 | 0.075 | 0.062 | 0.036 | 0.036 | 73 |
| 06/07/2017 | 02:00:00 | 4224.22 | 668972 | 1.999 | 0.136 | 667089 | 45 | 83 | 0.030 | 0.075 | 0.061 | 0.036 | 0.036 | 72 |
| 06/07/2017 | 03:00:00 | 4225.22 | 669017 | 2 | 0.136 | 667133 | 44 | 83 | 0.030 | 0.075 | 0.061 | 0.036 | 0.036 | 72 |
| 06/07/2017 | 04:00:00 | 4226.22 | 669061 | 2 | 0.136 | 667177 | 44 | 83 | 0.030 | 0.075 | 0.061 | 0.036 | 0.036 | 72 |
| 06/07/2017 | 05:00:00 | 4227.22 | 669105 | 2 | 0.136 | 667221 | 44 | 83 | 0.030 | 0.075 | 0.061 | 0.036 | 0.036 | 72 |
| 06/07/2017 | 06:00:00 | 4228.22 | 669148 | 2 | 0.135 | 667265 | 44 | 82 | 0.030 | 0.075 | 0.060 | 0.035 | 0.036 | 71 |
| 06/07/2017 | 07:00:00 | 4229.22 | 669193 | 2 | 0.136 | 667309 | 44 | 83 | 0.030 | 0.075 | 0.061 | 0.036 | 0.036 | 72 |
| 06/07/2017 | 08:00:00 | 4230.22 | 669237 | 1.998 | 0.136 | 667353 | 44 | 83 | 0.030 | 0.075 | 0.061 | 0.036 | 0.036 | 72 |
| 06/07/2017 | 09:00:00 | 4231.22 | 669280 | 2.001 | 0.135 | 667396 | 43 | 82 | 0.030 | 0.075 | 0.060 | 0.035 | 0.036 | 71 |
| 06/07/2017 | 10:00:00 | 4232.22 | 669323 | 1.997 | 0.135 | 667439 | 43 | 82 | 0.030 | 0.075 | 0.060 | 0.035 | 0.036 | 71 |
| 06/07/2017 | 11:00:00 | 4233.22 | 669366 | 2.002 | 0.134 | 667481 | 42 | 82 | 0.030 | 0.075 | 0.059 | 0.034 | 0.036 | 70 |
| 06/07/2017 | 12:00:00 | 4234.22 | 669407 | 2 | 0.132 | 667523 | 42 | 81 | 0.030 | 0.075 | 0.057 | 0.032 | 0.036 | 68 |
| 06/07/2017 | 13:00:00 | 4235.22 | 669448 | 2 | 0.132 | 667563 | 40 | 81 | 0.030 | 0.075 | 0.057 | 0.032 | 0.036 | 68 |
| 06/07/2017 | 14:00:00 | 4236.22 | 669487 | 2.003 | 0.132 | 667603 | 40 | 81 | 0.030 | 0.075 | 0.057 | 0.032 | 0.036 | 68 |
| 06/07/2017 | 15:00:00 | 4236.78 | 669509 | 2.376 | 0.131 | 667624 | 21 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 06/07/2017 | 16:00:00 | 4236.78 | 669509 | 2.381 | 0.132 | 667624 | 0 | 81 | 0.030 | 0.075 | 0.057 | 0.032 | 0.036 | 68 |
| 06/07/2017 | 17:00:00 | 4236.78 | 669509 | 2.382 | 0.132 | 667624 | 0 | 81 | 0.030 | 0.075 | 0.057 | 0.032 | 0.036 | 68 |
| 06/07/2017 | 18:00:00 | 4236.78 | 669509 | 2.385 | 0.131 | 667624 | 0 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 06/07/2017 | 19:00:00 | 4236.78 | 669509 | 2.385 | 0.131 | 667624 | 0 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 06/07/2017 | 20:00:00 | 4236.78 | 669509 | 2.386 | 0.131 | 667624 | 0 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 06/07/2017 | 21:00:00 | 4236.78 | 669509 | 2.387 | 0.131 | 667624 | 0 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 06/07/2017 | 22:00:00 | 4236.78 | 669509 | 2.388 | 0.131 | 667624 | 0 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 06/07/2017 | 23:00:00 | 4236.78 | 669509 | 2.391 | 0.131 | 667624 | 0 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 07/07/2017 | 00:00:00 | 4236.78 | 669509 | 2.392 | 0.131 | 667624 | 0 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 07/07/2017 | 01:00:00 | 4236.78 | 669509 | 2.392 | 0.131 | 667624 | 0 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 07/07/2017 | 02:00:00 | 4236.78 | 669509 | 2.393 | 0.131 | 667624 | 0 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 07/07/2017 | 03:00:00 | 4236.78 | 669509 | 2.393 | 0.131 | 667624 | 0 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 07/07/2017 | 04:00:00 | 4236.78 | 669509 | 2.394 | 0.131 | 667624 | 0 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 07/07/2017 | 05:00:00 | 4236.78 | 669509 | 2.394 | 0.131 | 667624 | 0 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 07/07/2017 | 06:00:00 | 4236.78 | 669509 | 2.394 | 0.131 | 667624 | 0 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 07/07/2017 | 07:00:00 | 4236.78 | 669509 | 2.395 | 0.131 | 667624 | 0 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 07/07/2017 | 08:00:00 | 4236.78 | 669509 | 2.395 | 0.131 | 667624 | 0 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 07/07/2017 | 09:00:00 | 4236.78 | 669509 | 2.397 | 0.131 | 667624 | 0 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 07/07/2017 | 10:00:00 | 4236.78 | 669509 | 2.396 | 0.13 | 667624 | 0 | 80 | 0.030 | 0.075 | 0.055 | 0.030 | 0.035 | 66 |
| 07/07/2017 | 11:00:00 | 4236.78 | 669509 | 2.397 | 0.13 | 667624 | 0 | 80 | 0.030 | 0.075 | 0.055 | 0.030 | 0.035 | 66 |
| 07/07/2017 | 12:00:00 | 4236.78 | 669509 | 2.398 | 0.13 | 667624 | 0 | 80 | 0.030 | 0.075 | 0.055 | 0.030 | 0.035 | 66 |
| 07/07/2017 | 13:00:00 | 4236.78 | 669509 | 2.398 | 0.13 | 667624 | 0 | 80 | 0.030 | 0.075 | 0.055 | 0.030 | 0.035 | 66 |
| 07/07/2017 | 14:00:00 | 4236.78 | 669509 | 2.4 | 0.131 | 667624 | 0 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 07/07/2017 | 15:00:00 | 4236.78 | 669509 | 2.404 | 0.132 | 667624 | 0 | 81 | 0.030 | 0.075 | 0.057 | 0.032 | 0.036 | 68 |
| 07/07/2017 | 16:00:00 | 4236.78 | 669509 | 2.408 | 0.135 | 667624 | 0 | 82 | 0.030 | 0.075 | 0.060 | 0.035 | 0.036 | 71 |
| 07/07/2017 | 17:00:00 | 4237.56 | 669545 | 2.002 | 0.137 | 667660 | 36 | 83 | 0.030 | 0.075 | 0.062 | 0.036 | 0.036 | 73 |
| 07/07/2017 | 18:00:00 | 4238.56 | 669591 | 2 | 0.138 | 667707 | 47 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 07/07/2017 | 19:00:00 | 4239.56 | 669637 | 2.001 | 0.136 | 667752 | 45 | 83 | 0.030 | 0.075 | 0.061 | 0.036 | 0.036 | 72 |
| 07/07/2017 | 20:00:00 | 4240.56 | 669681 | 1.997 | 0.134 | 667796 | 44 | | | | | | | |

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|------------|----------|---------|--------|-------|-------|--------|-----|-----|-------|-------|-------|-------|-------|-----|
| 19/07/2017 | 22:00:00 | 4262.11 | 671007 | 2.444 | 0.114 | 669119 | 0 | 73 | 0.030 | 0.075 | 0.039 | 0.018 | 0.019 | 38 |
| 19/07/2017 | 23:00:00 | 4262.11 | 671007 | 2.444 | 0.113 | 669119 | 0 | 73 | 0.030 | 0.075 | 0.038 | 0.017 | 0.019 | 37 |
| 20/07/2017 | 00:00:00 | 4262.11 | 671007 | 2.443 | 0.112 | 669119 | 0 | 72 | 0.030 | 0.075 | 0.037 | 0.017 | 0.019 | 36 |
| 20/07/2017 | 01:00:00 | 4262.11 | 671007 | 2.443 | 0.112 | 669119 | 0 | 72 | 0.030 | 0.075 | 0.037 | 0.017 | 0.019 | 36 |
| 20/07/2017 | 02:00:00 | 4262.11 | 671007 | 2.442 | 0.111 | 669119 | 0 | 72 | 0.030 | 0.075 | 0.036 | 0.016 | 0.019 | 35 |
| 20/07/2017 | 03:00:00 | 4262.11 | 671007 | 2.444 | 0.111 | 669119 | 0 | 72 | 0.030 | 0.075 | 0.036 | 0.016 | 0.019 | 35 |
| 20/07/2017 | 04:00:00 | 4262.11 | 671007 | 2.445 | 0.112 | 669119 | 0 | 72 | 0.030 | 0.075 | 0.037 | 0.017 | 0.019 | 36 |
| 20/07/2017 | 05:00:00 | 4262.11 | 671007 | 2.445 | 0.11 | 669119 | 0 | 72 | 0.030 | 0.075 | 0.035 | 0.015 | 0.018 | 34 |
| 20/07/2017 | 06:00:00 | 4262.11 | 671007 | 2.444 | 0.111 | 669119 | 0 | 72 | 0.030 | 0.075 | 0.036 | 0.016 | 0.019 | 35 |
| 20/07/2017 | 07:00:00 | 4262.11 | 671007 | 2.444 | 0.111 | 669119 | 0 | 72 | 0.030 | 0.075 | 0.036 | 0.016 | 0.019 | 35 |
| 20/07/2017 | 08:00:00 | 4262.11 | 671007 | 2.444 | 0.11 | 669119 | 0 | 72 | 0.030 | 0.075 | 0.035 | 0.015 | 0.018 | 34 |
| 20/07/2017 | 09:00:00 | 4262.11 | 671007 | 2.444 | 0.109 | 669119 | 0 | 71 | 0.030 | 0.075 | 0.034 | 0.015 | 0.018 | 33 |
| 20/07/2017 | 10:00:00 | 4262.11 | 671007 | 2.443 | 0.108 | 669119 | 0 | 71 | 0.030 | 0.075 | 0.033 | 0.014 | 0.018 | 32 |
| 20/07/2017 | 11:00:00 | 4262.11 | 671007 | 2.443 | 0.108 | 669119 | 0 | 71 | 0.030 | 0.075 | 0.033 | 0.014 | 0.018 | 32 |
| 20/07/2017 | 12:00:00 | 4262.11 | 671007 | 2.443 | 0.107 | 669119 | 0 | 71 | 0.030 | 0.075 | 0.032 | 0.014 | 0.018 | 31 |
| 20/07/2017 | 13:00:00 | 4262.11 | 671007 | 2.442 | 0.107 | 669119 | 0 | 71 | 0.030 | 0.075 | 0.032 | 0.014 | 0.018 | 31 |
| 20/07/2017 | 14:00:00 | 4262.11 | 671007 | 2.44 | 0.106 | 669119 | 0 | 71 | 0.030 | 0.075 | 0.031 | 0.013 | 0.017 | 30 |
| 20/07/2017 | 15:00:00 | 4262.11 | 671007 | 2.441 | 0.106 | 669119 | 0 | 71 | 0.030 | 0.075 | 0.031 | 0.013 | 0.017 | 30 |
| 20/07/2017 | 16:00:00 | 4262.11 | 671007 | 2.439 | 0.106 | 669119 | 0 | 71 | 0.030 | 0.075 | 0.031 | 0.013 | 0.017 | 30 |
| 20/07/2017 | 17:00:00 | 4262.11 | 671007 | 2.439 | 0.105 | 669119 | 0 | 70 | 0.030 | 0.075 | 0.030 | 0.012 | 0.017 | 29 |
| 20/07/2017 | 18:00:00 | 4262.11 | 671007 | 2.439 | 0.106 | 669119 | 0 | 71 | 0.030 | 0.075 | 0.031 | 0.013 | 0.017 | 30 |
| 20/07/2017 | 19:00:00 | 4262.11 | 671007 | 2.439 | 0.104 | 669119 | 0 | 70 | 0.030 | 0.075 | 0.029 | 0.012 | 0.017 | 28 |
| 20/07/2017 | 20:00:00 | 4262.11 | 671007 | 2.439 | 0.104 | 669119 | 0 | 70 | 0.030 | 0.075 | 0.029 | 0.012 | 0.017 | 28 |
| 20/07/2017 | 21:00:00 | 4262.11 | 671007 | 2.442 | 0.106 | 669119 | 0 | 71 | 0.030 | 0.075 | 0.031 | 0.013 | 0.017 | 30 |
| 20/07/2017 | 22:00:00 | 4262.11 | 671007 | 2.44 | 0.104 | 669119 | 0 | 70 | 0.030 | 0.075 | 0.029 | 0.012 | 0.017 | 28 |
| 20/07/2017 | 23:00:00 | 4262.11 | 671007 | 2.442 | 0.104 | 669119 | 0 | 70 | 0.030 | 0.075 | 0.029 | 0.012 | 0.017 | 28 |
| 21/07/2017 | 00:00:00 | 4262.11 | 671007 | 2.443 | 0.104 | 669119 | 0 | 70 | 0.030 | 0.075 | 0.029 | 0.012 | 0.017 | 28 |
| 21/07/2017 | 01:00:00 | 4262.11 | 671007 | 2.443 | 0.104 | 669119 | 0 | 70 | 0.030 | 0.075 | 0.029 | 0.012 | 0.017 | 28 |
| 21/07/2017 | 02:00:00 | 4262.11 | 671007 | 2.443 | 0.104 | 669119 | 0 | 70 | 0.030 | 0.075 | 0.029 | 0.012 | 0.017 | 28 |
| 21/07/2017 | 03:00:00 | 4262.11 | 671007 | 2.444 | 0.105 | 669119 | 0 | 70 | 0.030 | 0.075 | 0.030 | 0.012 | 0.017 | 29 |
| 21/07/2017 | 04:00:00 | 4262.11 | 671007 | 2.446 | 0.106 | 669119 | 0 | 71 | 0.030 | 0.075 | 0.031 | 0.013 | 0.017 | 30 |
| 21/07/2017 | 05:00:00 | 4262.11 | 671007 | 2.45 | 0.108 | 669119 | 0 | 71 | 0.030 | 0.075 | 0.033 | 0.014 | 0.018 | 32 |
| 21/07/2017 | 06:00:00 | 4262.11 | 671007 | 2.466 | 0.116 | 669119 | 0 | 74 | 0.030 | 0.075 | 0.041 | 0.020 | 0.020 | 39 |
| 21/07/2017 | 07:00:00 | 4262.11 | 671007 | 2.486 | 0.128 | 669119 | 0 | 79 | 0.030 | 0.075 | 0.053 | 0.029 | 0.023 | 51 |
| 21/07/2017 | 08:00:00 | 4262.68 | 671041 | 2.001 | 0.145 | 669153 | 34 | 87 | 0.030 | 0.075 | 0.070 | 0.044 | 0.026 | 70 |
| 21/07/2017 | 09:00:00 | 4263.68 | 671121 | 2.001 | 0.158 | 669233 | 80 | 95 | 0.030 | 0.075 | 0.083 | 0.056 | 0.028 | 85 |
| 21/07/2017 | 10:00:00 | 4264.68 | 671209 | 1.998 | 0.16 | 669321 | 88 | 96 | 0.030 | 0.075 | 0.085 | 0.059 | 0.039 | 98 |
| 21/07/2017 | 11:00:00 | 4265.68 | 671308 | 2.011 | 0.171 | 669420 | 99 | 104 | 0.030 | 0.075 | 0.096 | 0.070 | 0.041 | 111 |
| 21/07/2017 | 12:00:00 | 4266.68 | 671436 | 1.997 | 0.19 | 669548 | 128 | 119 | 0.030 | 0.075 | 0.115 | 0.092 | 0.043 | 135 |
| 21/07/2017 | 13:00:00 | 4267.68 | 671578 | 1.997 | 0.187 | 669689 | 141 | 116 | 0.030 | 0.075 | 0.112 | 0.089 | 0.042 | 131 |
| 21/07/2017 | 14:00:00 | 4268.68 | 671720 | 2.006 | 0.194 | 669831 | 142 | 122 | 0.030 | 0.075 | 0.119 | 0.097 | 0.043 | 140 |
| 21/07/2017 | 15:00:00 | 4269.68 | 671867 | 1.999 | 0.188 | 669977 | 146 | 117 | 0.030 | 0.075 | 0.113 | 0.090 | 0.042 | 132 |
| 21/07/2017 | 16:00:00 | 4270.68 | 671996 | 1.995 | 0.176 | 670106 | 129 | 108 | 0.030 | 0.075 | 0.101 | 0.076 | 0.041 | 117 |
| 21/07/2017 | 17:00:00 | 4271.68 | 672104 | 1.996 | 0.165 | 670214 | 108 | 100 | 0.030 | 0.075 | 0.090 | 0.064 | 0.040 | 104 |
| 21/07/2017 | 18:00:00 | 4272.68 | 672194 | 1.995 | 0.154 | 670304 | 90 | 93 | 0.030 | 0.075 | 0.079 | 0.052 | 0.038 | 91 |
| 21/07/2017 | 19:00:00 | 4273.68 | 672270 | 1.999 | 0.151 | 670380 | 76 | 91 | 0.030 | 0.075 | 0.076 | 0.049 | 0.038 | 88 |
| 21/07/2017 | 20:00:00 | 4274.68 | 672341 | 2.001 | 0.147 | 670451 | 71 | 88 | 0.030 | 0.075 | 0.072 | 0.046 | 0.038 | 83 |
| 21/07/2017 | 21:00:00 | 4275.69 | 672408 | 2.003 | 0.146 | 670517 | 66 | 88 | 0.030 | 0.075 | 0.071 | 0.045 | 0.037 | 82 |
| 21/07/2017 | 22:00:00 | 4276.69 | 672471 | 1.998 | 0.143 | 670580 | 63 | 86 | 0.030 | 0.075 | 0.068 | 0.042 | 0.037 | 79 |
| 21/07/2017 | 23:00:00 | 4277.69 | 672532 | 1.996 | 0.142 | 670641 | 61 | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 22/07/2017 | 00:00:00 | 4278.69 | 672590 | 1.999 | 0.141 | 670700 | 59 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 22/07/2017 | 01:00:00 | 4279.69 | 672648 | 1.998 | 0.139 | 670757 | 57 | 84 | 0.030 | 0.075 | 0.064 | 0.038 | 0.037 | 75 |
| 22/07/2017 | 02:00:00 | 4280.69 | 672704 | 2.001 | 0.139 | 670813 | 56 | 84 | 0.030 | 0.075 | 0.064 | 0.038 | 0.037 | 75 |
| 22/07/2017 | 03:00:00 | 4281.69 | 672759 | 2.001 | 0.139 | 670869 | 56 | 84 | 0.030 | 0.075 | 0.064 | 0.038 | 0.037 | 75 |
| 22/07/2017 | 04:00:00 | 4282.69 | 672817 | 2 | 0.141 | 670926 | 57 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 22/07/2017 | 05:00:00 | 4283.69 | 672875 | 1.997 | 0.142 | 670984 | 58 | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 22/07/2017 | 06:00:00 | 4284.69 | 672933 | 2 | 0.141 | 671042 | 58 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 22/07/2017 | 07:00:00 | 4285.69 | 672989 | 1.997 | 0.138 | 671098 | 56 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 22/07/2017 | 08:00:00 | 4286.69 | 673044 | 1.999 | 0.139 | 671152 | 54 | 84 | 0.030 | 0.075 | 0.064 | 0.038 | 0.037 | 75 |
| 22/07/2017 | 09:00:00 | 4287.69 | 673104 | 2.005 | 0.147 | 671212 | 60 | 88 | 0.030 | 0.075 | 0.072 | 0.046 | 0.038 | 83 |
| 22/07/2017 | 10:00:00 | 4288.69 | 673200 | 2.028 | 0.195 | 671308 | 96 | 123 | 0.030 | 0.075 | 0.120 | 0.098 | 0.043 | 141 |
| 22/07/2017 | 11:00:00 | 4289.69 | 673511 | 2.4 | 0.385 | 671618 | 310 | 409 | 0.030 | 0.075 | 0.310 | 0.408 | 0.061 | 469 |
| 22/07/2017 | 12:00:00 | 4290.69 | 673899 | 2.603 | 0.502 | 672006 | 388 | 702 | 0.030 | 0.075 | 0.427 | 0.659 | 0.069 | 729 |
| 22/07/2017 | 13:00:00 | 4291.69 | 674288 | 2.574 | 0.442 | 672394 | 388 | 540 | 0.030 | 0.075 | 0.367 | 0.525 | 0.065 | 590 |
| 22/07/2017 | 14:00:00 | 4292.69 | 674677 | 2.374 | 0.366 | 672782 | 388 | 370 | 0.030 | 0.075 | 0.291 | 0.371 | 0.059 | 430 |
| 22/07/2017 | 15:00:00 | 4293.69 | 675064 | 2.009 | 0.311 | 673169 | 387 | 270 | 0.030 | 0.075 | 0.236 | 0.271 | 0.055 | 325 |
| 22/07/2017 | 16:00:00 | 4294.69 | 675395 | 1.977 | 0.263 | 673499 | 330 | 198 | 0.030 | 0.075 | 0.188 | 0.193 | 0.050 | 243 |
| 22/07/2017 | 17:00:00 | 4295.69 | 675654 | 1.994 | 0.236 | 673757 | 258 | 165 | 0.030 | 0.075 | 0.161 | 0.153 | 0.048 | 200 |
| 22/07/2017 | 18:00:00 | 4296.69 | 675866 | 1.996 | 0.218 | 673969 | 212 | 145 | 0.030 | 0.075 | 0.143 | 0.128 | 0.046 | 174 |
| 22/07/2017 | 19:00:00 | 4297.69 | 676044 | 1.995 | 0.204 | 674146 | 177 | 132 | 0.030 | 0.075 | 0.129 | 0.109 | 0.044 | 154 |
| 22/07/2017 | 20:00:00 | 4298.69 | 676199 | 1.995 | 0.194 | 674301 | 155 | 122 | 0.030 | 0.075 | 0.119 | 0.097 | 0.043 | 140 |
| 22/07/2017 | 21:00:00 | 4299.69 | 676338 | 2.001 | 0.186 | 674439 | 138 | 116 | 0.030 | 0.075 | 0.111 | 0.087 | 0.042 | 130 |
| 22/07/2017 | 22:00:00 | 4300.69 | 676463 | 2 | 0.181 | 674564 | 125 | 112 | 0.030 | 0.075 | 0.106 | 0.082 | 0.042 | 123 |
| 22/07/2017 | 23:00:00 | 4301.69 | 676580 | 2.002 | 0.176 | 674680 | 116 | 108 | 0.030 | 0.075 | 0.101 | 0.076 | 0.041 | 117 |
| 23/07/2017 | 00:00:00 | 4302.69 | 676688 | 1.999 | 0.171 | 674788 | 108 | 104 | 0.030 | 0.075 | 0.096 | 0.070 | 0.041 | 111 |
| 23/07/2017 | 01:00:00 | 4303.69 | 676789 | 2 | 0.168 | 674889 | 101 | 102 | 0.030 | 0.075 | 0.093 | 0.067 | 0.040 | 107 |
| 23/07/2017 | 02:00:00 | 4304.69 | 676890 | 1.997 | 0.171 | 674990 | 101 | 104 | 0.030 | 0.075 | 0.096 | 0.070 | 0.041 | 111 |
| 23/07/2017 | 03:00:00 | 4305.69 | 676994 | 2.001 | 0.172 | 675094 | 104 | 105 | 0.030 | 0.075 | 0.097 | 0.071 | 0.041 | 112 |
| 23/07/2017 | 04:00:00 | 4306.69 | 677097 | 1.996 | 0.169 | 675196 | 102 | | | | | | | |

| | | | | | | | | | | | | | | |
|------------|----------|---------|--------|-------|-------|--------|-----|-----|-------|-------|-------|-------|-------|-----|
| 23/07/2017 | 18:00:00 | 4320.69 | 678278 | 2.047 | 0.246 | 676374 | 159 | 177 | 0.030 | 0.075 | 0.171 | 0.167 | 0.049 | 216 |
| 23/07/2017 | 19:00:00 | 4321.69 | 678598 | 2.006 | 0.282 | 676693 | 319 | 225 | 0.030 | 0.075 | 0.207 | 0.222 | 0.052 | 275 |
| 23/07/2017 | 20:00:00 | 4322.69 | 678910 | 1.993 | 0.262 | 677005 | 312 | 197 | 0.030 | 0.075 | 0.187 | 0.191 | 0.050 | 241 |
| 23/07/2017 | 21:00:00 | 4323.69 | 679172 | 1.983 | 0.239 | 677266 | 261 | 169 | 0.030 | 0.075 | 0.164 | 0.157 | 0.048 | 205 |
| 23/07/2017 | 22:00:00 | 4324.69 | 679390 | 1.995 | 0.222 | 677484 | 218 | 150 | 0.030 | 0.075 | 0.147 | 0.133 | 0.046 | 179 |
| 23/07/2017 | 23:00:00 | 4325.69 | 679576 | 2 | 0.21 | 677669 | 185 | 137 | 0.030 | 0.075 | 0.135 | 0.117 | 0.045 | 162 |
| 24/07/2017 | 00:00:00 | 4326.69 | 679739 | 2 | 0.199 | 677832 | 163 | 127 | 0.030 | 0.075 | 0.124 | 0.103 | 0.044 | 147 |
| 24/07/2017 | 01:00:00 | 4327.69 | 679885 | 1.997 | 0.19 | 677977 | 145 | 119 | 0.030 | 0.075 | 0.115 | 0.092 | 0.043 | 135 |
| 24/07/2017 | 02:00:00 | 4328.69 | 680018 | 2 | 0.185 | 678109 | 132 | 115 | 0.030 | 0.075 | 0.110 | 0.086 | 0.042 | 128 |
| 24/07/2017 | 03:00:00 | 4329.69 | 680140 | 2.003 | 0.181 | 678231 | 122 | 112 | 0.030 | 0.075 | 0.106 | 0.082 | 0.042 | 123 |
| 24/07/2017 | 04:00:00 | 4330.69 | 680254 | 2.001 | 0.176 | 678346 | 115 | 108 | 0.030 | 0.075 | 0.101 | 0.076 | 0.041 | 117 |
| 24/07/2017 | 05:00:00 | 4331.69 | 680362 | 1.997 | 0.172 | 678453 | 107 | 105 | 0.030 | 0.075 | 0.097 | 0.071 | 0.041 | 112 |
| 24/07/2017 | 06:00:00 | 4332.69 | 680465 | 2.001 | 0.169 | 678555 | 102 | 103 | 0.030 | 0.075 | 0.094 | 0.068 | 0.040 | 108 |
| 24/07/2017 | 07:00:00 | 4333.69 | 680562 | 1.998 | 0.168 | 678653 | 98 | 102 | 0.030 | 0.075 | 0.093 | 0.067 | 0.040 | 107 |
| 24/07/2017 | 08:00:00 | 4334.1 | 680601 | 2.412 | 0.164 | 678692 | 39 | 99 | 0.030 | 0.075 | 0.089 | 0.063 | 0.040 | 102 |
| 24/07/2017 | 09:00:00 | 4334.85 | 680666 | 2.003 | 0.163 | 678758 | 66 | 98 | 0.030 | 0.075 | 0.088 | 0.062 | 0.040 | 101 |
| 24/07/2017 | 10:00:00 | 4335.85 | 680753 | 2 | 0.16 | 678844 | 86 | 96 | 0.030 | 0.075 | 0.085 | 0.059 | 0.039 | 98 |
| 24/07/2017 | 11:00:00 | 4336.85 | 680837 | 2 | 0.158 | 678928 | 84 | 95 | 0.030 | 0.075 | 0.083 | 0.056 | 0.039 | 95 |
| 24/07/2017 | 12:00:00 | 4337.85 | 680919 | 1.997 | 0.157 | 679009 | 81 | 94 | 0.030 | 0.075 | 0.082 | 0.055 | 0.039 | 94 |
| 24/07/2017 | 13:00:00 | 4338.85 | 680997 | 2.002 | 0.156 | 679087 | 78 | 94 | 0.030 | 0.075 | 0.081 | 0.054 | 0.039 | 93 |
| 24/07/2017 | 14:00:00 | 4339.85 | 681073 | 2.001 | 0.153 | 679163 | 76 | 92 | 0.030 | 0.075 | 0.078 | 0.051 | 0.038 | 90 |
| 24/07/2017 | 15:00:00 | 4340.85 | 681146 | 1.996 | 0.152 | 679236 | 73 | 91 | 0.030 | 0.075 | 0.077 | 0.050 | 0.038 | 89 |
| 24/07/2017 | 16:00:00 | 4341.85 | 681217 | 2.001 | 0.15 | 679306 | 70 | 90 | 0.030 | 0.075 | 0.075 | 0.049 | 0.038 | 86 |
| 24/07/2017 | 17:00:00 | 4342.85 | 681285 | 2 | 0.15 | 679375 | 69 | 90 | 0.030 | 0.075 | 0.075 | 0.049 | 0.038 | 86 |
| 24/07/2017 | 18:00:00 | 4343.85 | 681352 | 1.998 | 0.149 | 679441 | 66 | 90 | 0.030 | 0.075 | 0.074 | 0.048 | 0.038 | 85 |
| 24/07/2017 | 19:00:00 | 4344.85 | 681417 | 2 | 0.147 | 679506 | 65 | 88 | 0.030 | 0.075 | 0.072 | 0.046 | 0.038 | 83 |
| 24/07/2017 | 20:00:00 | 4345.85 | 681481 | 2 | 0.147 | 679570 | 64 | 88 | 0.030 | 0.075 | 0.072 | 0.046 | 0.038 | 83 |
| 24/07/2017 | 21:00:00 | 4346.85 | 681545 | 2.003 | 0.147 | 679633 | 63 | 88 | 0.030 | 0.075 | 0.072 | 0.046 | 0.038 | 83 |
| 24/07/2017 | 22:00:00 | 4347.85 | 681607 | 1.998 | 0.147 | 679695 | 62 | 88 | 0.030 | 0.075 | 0.072 | 0.046 | 0.038 | 83 |
| 24/07/2017 | 23:00:00 | 4348.85 | 681669 | 2.002 | 0.146 | 679757 | 62 | 88 | 0.030 | 0.075 | 0.071 | 0.045 | 0.037 | 82 |
| 25/07/2017 | 00:00:00 | 4349.85 | 681730 | 2 | 0.146 | 679818 | 61 | 88 | 0.030 | 0.075 | 0.071 | 0.045 | 0.037 | 82 |
| 25/07/2017 | 01:00:00 | 4350.85 | 681791 | 1.999 | 0.146 | 679879 | 61 | 88 | 0.030 | 0.075 | 0.071 | 0.045 | 0.037 | 82 |
| 25/07/2017 | 02:00:00 | 4351.85 | 681851 | 2.001 | 0.145 | 679939 | 60 | 87 | 0.030 | 0.075 | 0.070 | 0.044 | 0.037 | 81 |
| 25/07/2017 | 03:00:00 | 4352.85 | 681910 | 1.997 | 0.145 | 679998 | 59 | 87 | 0.030 | 0.075 | 0.070 | 0.044 | 0.037 | 81 |
| 25/07/2017 | 04:00:00 | 4353.85 | 681969 | 2 | 0.145 | 680056 | 58 | 87 | 0.030 | 0.075 | 0.070 | 0.044 | 0.037 | 81 |
| 25/07/2017 | 05:00:00 | 4354.85 | 682027 | 2 | 0.145 | 680114 | 58 | 87 | 0.030 | 0.075 | 0.070 | 0.044 | 0.037 | 81 |
| 25/07/2017 | 06:00:00 | 4355.85 | 682085 | 2 | 0.143 | 680172 | 58 | 86 | 0.030 | 0.075 | 0.068 | 0.042 | 0.037 | 79 |
| 25/07/2017 | 07:00:00 | 4356.85 | 682143 | 2 | 0.143 | 680229 | 57 | 86 | 0.030 | 0.075 | 0.068 | 0.042 | 0.037 | 79 |
| 25/07/2017 | 08:00:00 | 4357.85 | 682200 | 1.999 | 0.143 | 680286 | 57 | 86 | 0.030 | 0.075 | 0.068 | 0.042 | 0.037 | 79 |
| 25/07/2017 | 09:00:00 | 4358.85 | 682256 | 2 | 0.143 | 680342 | 56 | 86 | 0.030 | 0.075 | 0.068 | 0.042 | 0.037 | 79 |
| 25/07/2017 | 10:00:00 | 4359.85 | 682313 | 1.998 | 0.142 | 680398 | 56 | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 25/07/2017 | 11:00:00 | 4360.85 | 682368 | 2.001 | 0.142 | 680454 | 56 | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 25/07/2017 | 12:00:00 | 4361.85 | 682423 | 2 | 0.141 | 680509 | 55 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 25/07/2017 | 13:00:00 | 4362.85 | 682477 | 1.997 | 0.141 | 680563 | 54 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 25/07/2017 | 14:00:00 | 4363.85 | 682531 | 1.996 | 0.141 | 680616 | 53 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 25/07/2017 | 15:00:00 | 4364.85 | 682585 | 2 | 0.141 | 680670 | 54 | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 25/07/2017 | 16:00:00 | 4365.85 | 682638 | 1.999 | 0.14 | 680723 | 53 | 85 | 0.030 | 0.075 | 0.065 | 0.039 | 0.037 | 76 |
| 25/07/2017 | 17:00:00 | 4366.85 | 682691 | 2 | 0.14 | 680775 | 52 | 85 | 0.030 | 0.075 | 0.065 | 0.039 | 0.037 | 76 |
| 25/07/2017 | 18:00:00 | 4367.85 | 682742 | 2 | 0.14 | 680827 | 52 | 85 | 0.030 | 0.075 | 0.065 | 0.039 | 0.037 | 76 |
| 25/07/2017 | 19:00:00 | 4368.85 | 682794 | 1.998 | 0.138 | 680878 | 51 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 25/07/2017 | 20:00:00 | 4369.85 | 682844 | 2.002 | 0.138 | 680928 | 50 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 25/07/2017 | 21:00:00 | 4370.85 | 682894 | 1.997 | 0.138 | 680978 | 50 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 25/07/2017 | 22:00:00 | 4371.85 | 682944 | 1.997 | 0.138 | 681027 | 49 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 25/07/2017 | 23:00:00 | 4372.85 | 682993 | 2 | 0.138 | 681077 | 50 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 26/07/2017 | 00:00:00 | 4373.85 | 683042 | 1.999 | 0.138 | 681125 | 48 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 26/07/2017 | 01:00:00 | 4374.85 | 683091 | 2.002 | 0.138 | 681174 | 49 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 26/07/2017 | 02:00:00 | 4375.85 | 683139 | 1.997 | 0.138 | 681223 | 49 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 26/07/2017 | 03:00:00 | 4376.85 | 683188 | 2.002 | 0.137 | 681271 | 48 | 83 | 0.030 | 0.075 | 0.062 | 0.036 | 0.036 | 73 |
| 26/07/2017 | 04:00:00 | 4377.85 | 683236 | 1.997 | 0.137 | 681319 | 48 | 83 | 0.030 | 0.075 | 0.062 | 0.036 | 0.036 | 73 |
| 26/07/2017 | 05:00:00 | 4378.85 | 683284 | 1.997 | 0.136 | 681367 | 48 | 83 | 0.030 | 0.075 | 0.061 | 0.036 | 0.036 | 72 |
| 26/07/2017 | 06:00:00 | 4379.85 | 683332 | 2.003 | 0.137 | 681414 | 47 | 83 | 0.030 | 0.075 | 0.062 | 0.036 | 0.036 | 73 |
| 26/07/2017 | 07:00:00 | 4380.85 | 683381 | 2.001 | 0.138 | 681463 | 49 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 26/07/2017 | 08:00:00 | 4381.85 | 683439 | 2.005 | 0.152 | 681521 | 58 | 91 | 0.030 | 0.075 | 0.077 | 0.050 | 0.038 | 89 |
| 26/07/2017 | 09:00:00 | 4382.85 | 683527 | 2.007 | 0.174 | 681609 | 88 | 106 | 0.030 | 0.075 | 0.099 | 0.074 | 0.041 | 114 |
| 26/07/2017 | 10:00:00 | 4383.85 | 683648 | 2.012 | 0.192 | 681730 | 121 | 121 | 0.030 | 0.075 | 0.117 | 0.095 | 0.043 | 137 |
| 26/07/2017 | 11:00:00 | 4384.85 | 683838 | 2.043 | 0.251 | 681919 | 189 | 183 | 0.030 | 0.075 | 0.176 | 0.174 | 0.049 | 224 |
| 26/07/2017 | 12:00:00 | 4385.85 | 684181 | 2.287 | 0.318 | 682262 | 343 | 281 | 0.030 | 0.075 | 0.283 | 0.283 | 0.055 | 338 |
| 26/07/2017 | 13:00:00 | 4386.85 | 684570 | 2.485 | 0.407 | 682649 | 387 | 457 | 0.030 | 0.075 | 0.332 | 0.452 | 0.063 | 514 |
| 26/07/2017 | 14:00:00 | 4387.85 | 684959 | 2.559 | 0.428 | 683037 | 388 | 506 | 0.030 | 0.075 | 0.353 | 0.495 | 0.064 | 560 |
| 26/07/2017 | 15:00:00 | 4388.85 | 685348 | 2.416 | 0.387 | 683425 | 388 | 413 | 0.030 | 0.075 | 0.312 | 0.412 | 0.061 | 473 |
| 26/07/2017 | 16:00:00 | 4389.85 | 685736 | 2.309 | 0.33 | 683812 | 387 | 302 | 0.030 | 0.075 | 0.255 | 0.304 | 0.056 | 360 |
| 26/07/2017 | 17:00:00 | 4390.85 | 686117 | 1.988 | 0.29 | 684192 | 380 | 237 | 0.030 | 0.075 | 0.215 | 0.236 | 0.053 | 288 |
| 26/07/2017 | 18:00:00 | 4391.85 | 686434 | 1.982 | 0.263 | 684508 | 316 | 198 | 0.030 | 0.075 | 0.188 | 0.193 | 0.050 | 243 |
| 26/07/2017 | 19:00:00 | 4392.85 | 686695 | 1.992 | 0.241 | 684769 | 261 | 171 | 0.030 | 0.075 | 0.166 | 0.160 | 0.048 | 208 |
| 26/07/2017 | 20:00:00 | 4393.85 | 686917 | 1.996 | 0.225 | 684990 | 221 | 153 | 0.030 | 0.075 | 0.150 | 0.137 | 0.046 | 184 |
| 26/07/2017 | 21:00:00 | 4394.85 | 687128 | 2.011 | 0.239 | 685201 | 211 | 169 | 0.030 | 0.075 | 0.164 | 0.157 | 0.048 | 205 |
| 26/07/2017 | 22:00:00 | 4395.85 | 687377 | 2 | 0.247 | 685449 | 248 | 178 | 0.030 | 0.075 | 0.172 | 0.169 | 0.049 | 217 |
| 26/07/2017 | 23:00:00 | 4396.85 | 687626 | 1.995 | 0.241 | 685697 | 248 | 171 | 0.030 | 0.075 | 0.166 | 0.160 | 0.048 | 208 |
| 27/07/2017 | 00:00:00 | 4397.85 | 687863 | 1.995 | 0.236 | 685934 | 237 | 165 | 0.030 | | | | | |

| | | | | | | | | | | | | | | | | |
|------------|----------|---------|--------|-------|---|-------|--------|-----|--|-----|-------|-------|-------|-------|-------|-----|
| 27/07/2017 | 14:00:00 | 4411.85 | 691096 | | 2 | 0.3 | 689159 | 378 | | 252 | 0.030 | 0.075 | 0.225 | 0.252 | 0.054 | 306 |
| 27/07/2017 | 15:00:00 | 4412.85 | 691462 | 1.996 | | 0.289 | 689524 | 365 | | 235 | 0.030 | 0.075 | 0.214 | 0.234 | 0.053 | 287 |
| 27/07/2017 | 16:00:00 | 4413.85 | 691791 | 1.981 | | 0.272 | 689852 | 328 | | 211 | 0.030 | 0.075 | 0.197 | 0.207 | 0.051 | 258 |
| 27/07/2017 | 17:00:00 | 4414.85 | 692081 | 1.996 | | 0.255 | 690141 | 289 | | 188 | 0.030 | 0.075 | 0.180 | 0.180 | 0.049 | 230 |
| 27/07/2017 | 18:00:00 | 4415.85 | 692337 | 1.992 | | 0.243 | 690396 | 255 | | 173 | 0.030 | 0.075 | 0.168 | 0.163 | 0.048 | 211 |
| 27/07/2017 | 19:00:00 | 4416.85 | 692567 | 1.992 | | 0.231 | 690626 | 230 | | 159 | 0.030 | 0.075 | 0.156 | 0.146 | 0.047 | 193 |
| 27/07/2017 | 20:00:00 | 4417.85 | 692779 | 1.996 | | 0.225 | 690837 | 211 | | 153 | 0.030 | 0.075 | 0.150 | 0.137 | 0.046 | 184 |
| 27/07/2017 | 21:00:00 | 4418.85 | 692987 | 2.002 | | 0.228 | 691045 | 208 | | 156 | 0.030 | 0.075 | 0.153 | 0.141 | 0.047 | 188 |
| 27/07/2017 | 22:00:00 | 4419.85 | 693206 | 2.005 | | 0.234 | 691263 | 218 | | 163 | 0.030 | 0.075 | 0.159 | 0.150 | 0.047 | 197 |
| 27/07/2017 | 23:00:00 | 4420.85 | 693439 | 2.006 | | 0.239 | 691496 | 233 | | 169 | 0.030 | 0.075 | 0.164 | 0.157 | 0.048 | 205 |
| 28/07/2017 | 00:00:00 | 4421.85 | 693668 | 2.001 | | 0.235 | 691724 | 228 | | 164 | 0.030 | 0.075 | 0.160 | 0.151 | 0.048 | 199 |
| 28/07/2017 | 01:00:00 | 4422.85 | 693894 | 2.006 | | 0.235 | 691949 | 225 | | 164 | 0.030 | 0.075 | 0.160 | 0.151 | 0.048 | 199 |
| 28/07/2017 | 02:00:00 | 4423.85 | 694124 | 2.002 | | 0.235 | 692178 | 229 | | 164 | 0.030 | 0.075 | 0.160 | 0.151 | 0.048 | 199 |
| 28/07/2017 | 03:00:00 | 4424.85 | 694348 | 1.995 | | 0.231 | 692402 | 224 | | 159 | 0.030 | 0.075 | 0.156 | 0.146 | 0.047 | 193 |
| 28/07/2017 | 04:00:00 | 4425.85 | 694569 | 2.001 | | 0.235 | 692622 | 220 | | 164 | 0.030 | 0.075 | 0.160 | 0.151 | 0.048 | 199 |
| 28/07/2017 | 05:00:00 | 4426.85 | 694823 | 2.049 | | 0.27 | 692876 | 254 | | 208 | 0.030 | 0.075 | 0.195 | 0.203 | 0.051 | 254 |
| 28/07/2017 | 06:00:00 | 4427.85 | 695192 | 2.413 | | 0.395 | 693244 | 368 | | 430 | 0.030 | 0.075 | 0.320 | 0.428 | 0.062 | 489 |
| 28/07/2017 | 07:00:00 | 4428.85 | 695580 | 2.655 | | 0.502 | 693631 | 387 | | 702 | 0.030 | 0.075 | 0.427 | 0.659 | 0.069 | 729 |
| 28/07/2017 | 08:00:00 | 4429.82 | 695954 | 2.85 | | 0.558 | 694004 | 373 | | 874 | 0.030 | 0.075 | 0.483 | 0.793 | 0.073 | 866 |
| 28/07/2017 | 09:00:00 | 4430.52 | 696168 | 2.747 | | 0.562 | 694218 | 214 | | 887 | 0.030 | 0.075 | 0.487 | 0.803 | 0.073 | 876 |
| 28/07/2017 | 10:00:00 | 4431.52 | 696557 | 2.715 | | 0.515 | 694606 | 388 | | 740 | 0.030 | 0.075 | 0.440 | 0.689 | 0.070 | 760 |
| 28/07/2017 | 11:00:00 | 4432.52 | 696946 | 2.669 | | 0.479 | 694994 | 388 | | 637 | 0.030 | 0.075 | 0.404 | 0.607 | 0.068 | 674 |
| 28/07/2017 | 12:00:00 | 4433.52 | 697335 | 2.638 | | 0.437 | 695382 | 388 | | 528 | 0.030 | 0.075 | 0.362 | 0.515 | 0.065 | 579 |
| 28/07/2017 | 13:00:00 | 4434.52 | 697724 | 2.485 | | 0.39 | 695770 | 388 | | 420 | 0.030 | 0.075 | 0.315 | 0.418 | 0.061 | 479 |
| 28/07/2017 | 14:00:00 | 4435.52 | 698112 | 2.375 | | 0.352 | 696157 | 387 | | 342 | 0.030 | 0.075 | 0.277 | 0.344 | 0.058 | 403 |
| 28/07/2017 | 15:00:00 | 4436.52 | 698500 | 2.309 | | 0.325 | 696545 | 388 | | 293 | 0.030 | 0.075 | 0.250 | 0.295 | 0.056 | 351 |
| 28/07/2017 | 16:00:00 | 4437.52 | 698888 | 2.225 | | 0.306 | 696931 | 386 | | 262 | 0.030 | 0.075 | 0.231 | 0.262 | 0.054 | 316 |
| 28/07/2017 | 17:00:00 | 4438.52 | 699263 | 1.992 | | 0.294 | 697306 | 375 | | 243 | 0.030 | 0.075 | 0.219 | 0.242 | 0.053 | 295 |
| 28/07/2017 | 18:00:00 | 4439.52 | 699606 | 1.993 | | 0.282 | 697648 | 342 | | 225 | 0.030 | 0.075 | 0.207 | 0.222 | 0.052 | 275 |
| 28/07/2017 | 19:00:00 | 4440.52 | 699923 | 1.989 | | 0.272 | 697963 | 315 | | 211 | 0.030 | 0.075 | 0.197 | 0.207 | 0.051 | 258 |
| 28/07/2017 | 20:00:00 | 4441.52 | 700219 | 1.992 | | 0.264 | 698259 | 296 | | 200 | 0.030 | 0.075 | 0.189 | 0.194 | 0.050 | 244 |
| 28/07/2017 | 21:00:00 | 4442.52 | 700500 | 1.991 | | 0.258 | 698539 | 280 | | 192 | 0.030 | 0.075 | 0.183 | 0.185 | 0.050 | 235 |
| 28/07/2017 | 22:00:00 | 4443.52 | 700772 | 2 | | 0.254 | 698810 | 271 | | 187 | 0.030 | 0.075 | 0.179 | 0.179 | 0.049 | 228 |
| 28/07/2017 | 23:00:00 | 4444.52 | 701031 | 1.999 | | 0.247 | 699069 | 259 | | 178 | 0.030 | 0.075 | 0.172 | 0.169 | 0.049 | 217 |
| 29/07/2017 | 00:00:00 | 4445.52 | 701280 | 1.996 | | 0.242 | 699317 | 248 | | 172 | 0.030 | 0.075 | 0.167 | 0.161 | 0.048 | 209 |
| 29/07/2017 | 01:00:00 | 4446.52 | 701518 | 1.997 | | 0.239 | 699555 | 238 | | 169 | 0.030 | 0.075 | 0.164 | 0.157 | 0.048 | 205 |
| 29/07/2017 | 02:00:00 | 4447.52 | 701751 | 2 | | 0.235 | 699787 | 232 | | 164 | 0.030 | 0.075 | 0.160 | 0.151 | 0.048 | 199 |
| 29/07/2017 | 03:00:00 | 4448.52 | 701978 | 2.002 | | 0.233 | 700013 | 226 | | 162 | 0.030 | 0.075 | 0.158 | 0.148 | 0.047 | 196 |
| 29/07/2017 | 04:00:00 | 4449.52 | 702197 | 2.003 | | 0.229 | 700232 | 219 | | 157 | 0.030 | 0.075 | 0.154 | 0.143 | 0.047 | 190 |
| 29/07/2017 | 05:00:00 | 4450.52 | 702417 | 2.007 | | 0.236 | 700450 | 218 | | 165 | 0.030 | 0.075 | 0.161 | 0.153 | 0.048 | 200 |
| 29/07/2017 | 06:00:00 | 4451.52 | 702679 | 2.034 | | 0.273 | 700712 | 262 | | 212 | 0.030 | 0.075 | 0.198 | 0.208 | 0.051 | 259 |
| 29/07/2017 | 07:00:00 | 4452.52 | 703045 | 2.326 | | 0.337 | 701077 | 365 | | 315 | 0.030 | 0.075 | 0.262 | 0.317 | 0.057 | 374 |
| 29/07/2017 | 08:00:00 | 4453.52 | 703434 | 2.516 | | 0.405 | 701465 | 388 | | 453 | 0.030 | 0.075 | 0.330 | 0.448 | 0.062 | 510 |
| 29/07/2017 | 09:00:00 | 4454.52 | 703822 | 2.605 | | 0.431 | 701852 | 387 | | 513 | 0.030 | 0.075 | 0.356 | 0.502 | 0.064 | 566 |
| 29/07/2017 | 10:00:00 | 4455.52 | 704210 | 2.623 | | 0.46 | 702240 | 388 | | 586 | 0.030 | 0.075 | 0.385 | 0.564 | 0.066 | 631 |
| 29/07/2017 | 11:00:00 | 4456.52 | 704599 | 2.623 | | 0.471 | 702627 | 387 | | 615 | 0.030 | 0.075 | 0.396 | 0.589 | 0.067 | 656 |
| 29/07/2017 | 12:00:00 | 4457.52 | 704987 | 2.595 | | 0.437 | 703015 | 388 | | 528 | 0.030 | 0.075 | 0.362 | 0.515 | 0.065 | 579 |
| 29/07/2017 | 13:00:00 | 4458.52 | 705376 | 2.432 | | 0.387 | 703402 | 387 | | 413 | 0.030 | 0.075 | 0.312 | 0.412 | 0.061 | 473 |
| 29/07/2017 | 14:00:00 | 4459.52 | 705764 | 2.343 | | 0.346 | 703789 | 387 | | 331 | 0.030 | 0.075 | 0.271 | 0.333 | 0.058 | 391 |
| 29/07/2017 | 15:00:00 | 4460.52 | 706152 | 2.284 | | 0.317 | 704176 | 387 | | 280 | 0.030 | 0.075 | 0.242 | 0.281 | 0.055 | 336 |
| 29/07/2017 | 16:00:00 | 4461.48 | 706520 | 2.539 | | 0.3 | 704544 | 368 | | 252 | 0.030 | 0.075 | 0.225 | 0.252 | 0.054 | 306 |
| 29/07/2017 | 17:00:00 | 4461.48 | 706520 | 2.536 | | 0.288 | 704544 | 0 | | 234 | 0.030 | 0.075 | 0.213 | 0.232 | 0.053 | 285 |
| 29/07/2017 | 18:00:00 | 4461.48 | 706520 | 2.523 | | 0.275 | 704544 | 0 | | 215 | 0.030 | 0.075 | 0.200 | 0.211 | 0.051 | 263 |
| 29/07/2017 | 19:00:00 | 4461.75 | 706562 | 2.314 | | 0.268 | 704586 | 42 | | 205 | 0.030 | 0.075 | 0.193 | 0.200 | 0.051 | 251 |
| 29/07/2017 | 20:00:00 | 4462.76 | 706850 | 2 | | 0.261 | 704872 | 286 | | 196 | 0.030 | 0.075 | 0.186 | 0.190 | 0.050 | 240 |
| 29/07/2017 | 21:00:00 | 4463.76 | 707124 | 2.001 | | 0.255 | 705146 | 274 | | 188 | 0.030 | 0.075 | 0.180 | 0.180 | 0.049 | 230 |
| 29/07/2017 | 22:00:00 | 4464.76 | 707388 | 2.005 | | 0.251 | 705409 | 263 | | 183 | 0.030 | 0.075 | 0.176 | 0.174 | 0.049 | 224 |
| 29/07/2017 | 23:00:00 | 4465.76 | 707642 | 2.003 | | 0.247 | 705662 | 253 | | 178 | 0.030 | 0.075 | 0.172 | 0.169 | 0.049 | 217 |
| 30/07/2017 | 00:00:00 | 4466.76 | 707888 | 1.993 | | 0.243 | 705907 | 245 | | 173 | 0.030 | 0.075 | 0.168 | 0.163 | 0.048 | 211 |
| 30/07/2017 | 01:00:00 | 4467.76 | 708127 | 2 | | 0.239 | 706145 | 238 | | 169 | 0.030 | 0.075 | 0.164 | 0.157 | 0.048 | 205 |
| 30/07/2017 | 02:00:00 | 4468.76 | 708360 | 2.001 | | 0.237 | 706378 | 233 | | 166 | 0.030 | 0.075 | 0.162 | 0.154 | 0.048 | 202 |
| 30/07/2017 | 03:00:00 | 4469.76 | 708605 | 2.007 | | 0.254 | 706622 | 244 | | 187 | 0.030 | 0.075 | 0.179 | 0.179 | 0.049 | 228 |
| 30/07/2017 | 04:00:00 | 4470.76 | 708889 | 2.013 | | 0.267 | 706905 | 283 | | 204 | 0.030 | 0.075 | 0.192 | 0.199 | 0.051 | 249 |
| 30/07/2017 | 05:00:00 | 4471.76 | 709177 | 2.006 | | 0.263 | 707192 | 287 | | 198 | 0.030 | 0.075 | 0.188 | 0.193 | 0.050 | 243 |
| 30/07/2017 | 06:00:00 | 4472.76 | 709457 | 1.996 | | 0.258 | 707471 | 279 | | 192 | 0.030 | 0.075 | 0.183 | 0.185 | 0.050 | 235 |
| 30/07/2017 | 07:00:00 | 4473.76 | 709725 | 1.996 | | 0.254 | 707739 | 268 | | 187 | 0.030 | 0.075 | 0.179 | 0.179 | 0.049 | 228 |
| 30/07/2017 | 08:00:00 | 4474.76 | 709983 | 2.008 | | 0.249 | 707997 | 258 | | 181 | 0.030 | 0.075 | 0.174 | 0.171 | 0.049 | 220 |
| 30/07/2017 | 09:00:00 | 4475.76 | 710231 | 1.996 | | 0.244 | 708244 | 247 | | 174 | 0.030 | 0.075 | 0.169 | 0.164 | 0.048 | 213 |
| 30/07/2017 | 10:00:00 | 4476.76 | 710471 | 2.001 | | 0.239 | 708483 | 239 | | 169 | 0.030 | 0.075 | 0.164 | 0.157 | 0.048 | 205 |
| 30/07/2017 | 11:00:00 | 4477.76 | 710702 | 2.002 | | 0.236 | 708713 | 230 | | 165 | 0.030 | 0.075 | 0.161 | 0.153 | 0.048 | 200 |
| 30/07/2017 | 12:00:00 | 4478.76 | 710927 | 1.996 | | 0.233 | 708937 | 224 | | 162 | 0.030 | 0.075 | 0.158 | 0.148 | 0.047 | 196 |
| 30/07/2017 | 13:00:00 | 4479.76 | 711146 | 2.002 | | 0.23 | 709156 | 219 | | 158 | 0.030 | 0.075 | 0.155 | 0.144 | 0.047 | 191 |
| 30/07/2017 | 14:00:00 | 4480.76 | 711364 | 2.005 | | 0.23 | 709373 | 217 | | 158 | 0.030 | 0.075 | 0.155 | 0.144 | 0.047 | 191 |
| 30/07/2017 | 15:00:00 | 4481.76 | | | | | | | | | | | | | | |

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|------------|----------|---------|--------|-------|-------|--------|-----|------|-------|-------|-------|-------|-------|------|
| 31/07/2017 | 10:00:00 | 4500.76 | 717221 | 1.981 | 0.291 | 715214 | 363 | 238 | 0.030 | 0.075 | 0.216 | 0.237 | 0.053 | 290 |
| 31/07/2017 | 11:00:00 | 4501.76 | 717561 | 1.994 | 0.282 | 715553 | 339 | 225 | 0.030 | 0.075 | 0.207 | 0.222 | 0.052 | 275 |
| 31/07/2017 | 12:00:00 | 4502.76 | 717884 | 1.99 | 0.275 | 715875 | 322 | 215 | 0.030 | 0.075 | 0.200 | 0.211 | 0.051 | 263 |
| 31/07/2017 | 13:00:00 | 4503.76 | 718189 | 1.987 | 0.267 | 716179 | 304 | 204 | 0.030 | 0.075 | 0.192 | 0.199 | 0.051 | 249 |
| 31/07/2017 | 14:00:00 | 4504.76 | 718478 | 1.994 | 0.261 | 716467 | 288 | 196 | 0.030 | 0.075 | 0.186 | 0.190 | 0.050 | 240 |
| 31/07/2017 | 15:00:00 | 4505.76 | 718752 | 1.995 | 0.254 | 716740 | 273 | 187 | 0.030 | 0.075 | 0.179 | 0.179 | 0.049 | 228 |
| 31/07/2017 | 16:00:00 | 4506.76 | 719012 | 2.002 | 0.249 | 717000 | 260 | 181 | 0.030 | 0.075 | 0.174 | 0.171 | 0.049 | 220 |
| 31/07/2017 | 17:00:00 | 4507.76 | 719261 | 1.996 | 0.244 | 717248 | 248 | 174 | 0.030 | 0.075 | 0.169 | 0.164 | 0.048 | 213 |
| 31/07/2017 | 18:00:00 | 4508.76 | 719502 | 1.995 | 0.241 | 717488 | 240 | 171 | 0.030 | 0.075 | 0.166 | 0.160 | 0.048 | 208 |
| 31/07/2017 | 19:00:00 | 4509.76 | 719741 | 2.013 | 0.246 | 717726 | 238 | 177 | 0.030 | 0.075 | 0.171 | 0.167 | 0.049 | 216 |
| 31/07/2017 | 20:00:00 | 4510.76 | 720025 | 2.011 | 0.273 | 718010 | 284 | 212 | 0.030 | 0.075 | 0.198 | 0.208 | 0.051 | 259 |
| 31/07/2017 | 21:00:00 | 4511.76 | 720332 | 1.99 | 0.27 | 718316 | 306 | 208 | 0.030 | 0.075 | 0.195 | 0.203 | 0.051 | 254 |
| 31/07/2017 | 22:00:00 | 4512.76 | 720638 | 1.988 | 0.276 | 718621 | 305 | 216 | 0.030 | 0.075 | 0.201 | 0.213 | 0.051 | 264 |
| 31/07/2017 | 23:00:00 | 4513.76 | 720981 | 2.242 | 0.308 | 718963 | 342 | 265 | 0.030 | 0.075 | 0.233 | 0.266 | 0.054 | 320 |
| 01/08/2017 | 00:00:00 | 4514.76 | 721369 | 2.367 | 0.363 | 719350 | 387 | 364 | 0.030 | 0.075 | 0.288 | 0.365 | 0.059 | 424 |
| 01/08/2017 | 01:00:00 | 4515.76 | 721757 | 2.354 | 0.359 | 719737 | 387 | 356 | 0.030 | 0.075 | 0.284 | 0.358 | 0.059 | 416 |
| 01/08/2017 | 02:00:00 | 4516.76 | 722146 | 2.534 | 0.422 | 720125 | 388 | 492 | 0.030 | 0.075 | 0.347 | 0.483 | 0.064 | 547 |
| 01/08/2017 | 03:00:00 | 4517.76 | 722535 | 2.675 | 0.475 | 720513 | 388 | 626 | 0.030 | 0.075 | 0.400 | 0.598 | 0.068 | 665 |
| 01/08/2017 | 04:00:00 | 4518.76 | 722924 | 2.588 | 0.44 | 720900 | 387 | 535 | 0.030 | 0.075 | 0.365 | 0.521 | 0.065 | 586 |
| 01/08/2017 | 05:00:00 | 4519.76 | 723312 | 2.505 | 0.418 | 721288 | 388 | 482 | 0.030 | 0.075 | 0.343 | 0.475 | 0.063 | 538 |
| 01/08/2017 | 06:00:00 | 4520.76 | 723701 | 2.403 | 0.386 | 721676 | 388 | 411 | 0.030 | 0.075 | 0.311 | 0.410 | 0.061 | 471 |
| 01/08/2017 | 07:00:00 | 4521.76 | 724089 | 2.376 | 0.373 | 722063 | 387 | 384 | 0.030 | 0.075 | 0.298 | 0.384 | 0.060 | 444 |
| 01/08/2017 | 08:00:00 | 4522.76 | 724477 | 2.341 | 0.351 | 722450 | 387 | 340 | 0.030 | 0.075 | 0.276 | 0.343 | 0.058 | 401 |
| 01/08/2017 | 09:00:00 | 4523.76 | 724865 | 2.329 | 0.339 | 722838 | 388 | 318 | 0.030 | 0.075 | 0.264 | 0.320 | 0.057 | 378 |
| 01/08/2017 | 10:00:00 | 4524.76 | 725254 | 2.292 | 0.323 | 723225 | 387 | 290 | 0.030 | 0.075 | 0.248 | 0.292 | 0.056 | 347 |
| 01/08/2017 | 11:00:00 | 4525.19 | 725418 | 2.554 | 0.308 | 723389 | 164 | 265 | 0.030 | 0.075 | 0.233 | 0.266 | 0.054 | 320 |
| 01/08/2017 | 12:00:00 | 4525.19 | 725418 | 2.539 | 0.299 | 723389 | 0 | 250 | 0.030 | 0.075 | 0.224 | 0.250 | 0.054 | 304 |
| 01/08/2017 | 13:00:00 | 4525.19 | 725418 | 2.532 | 0.29 | 723389 | 0 | 237 | 0.030 | 0.075 | 0.215 | 0.236 | 0.053 | 288 |
| 01/08/2017 | 14:00:00 | 4525.19 | 725418 | 2.527 | 0.279 | 723389 | 0 | 221 | 0.030 | 0.075 | 0.204 | 0.218 | 0.052 | 269 |
| 01/08/2017 | 15:00:00 | 4525.19 | 725418 | 2.521 | 0.272 | 723389 | 0 | 211 | 0.030 | 0.075 | 0.197 | 0.207 | 0.051 | 258 |
| 01/08/2017 | 16:00:00 | 4525.19 | 725418 | 2.517 | 0.266 | 723389 | 0 | 202 | 0.030 | 0.075 | 0.191 | 0.197 | 0.051 | 248 |
| 01/08/2017 | 17:00:00 | 4525.4 | 725444 | 2.36 | 0.261 | 723415 | 26 | 196 | 0.030 | 0.075 | 0.186 | 0.190 | 0.050 | 240 |
| 01/08/2017 | 18:00:00 | 4526.4 | 725717 | 2 | 0.256 | 723687 | 272 | 189 | 0.030 | 0.075 | 0.181 | 0.182 | 0.050 | 231 |
| 01/08/2017 | 19:00:00 | 4527.4 | 725984 | 2.011 | 0.252 | 723954 | 267 | 184 | 0.030 | 0.075 | 0.177 | 0.176 | 0.049 | 225 |
| 01/08/2017 | 20:00:00 | 4528.4 | 726248 | 2.007 | 0.256 | 724216 | 262 | 189 | 0.030 | 0.075 | 0.181 | 0.182 | 0.050 | 231 |
| 01/08/2017 | 21:00:00 | 4529.4 | 726524 | 1.99 | 0.261 | 724492 | 276 | 196 | 0.030 | 0.075 | 0.186 | 0.190 | 0.050 | 240 |
| 01/08/2017 | 22:00:00 | 4530.4 | 726812 | 2.001 | 0.266 | 724779 | 287 | 202 | 0.030 | 0.075 | 0.191 | 0.197 | 0.051 | 248 |
| 01/08/2017 | 23:00:00 | 4531.4 | 727109 | 2.005 | 0.273 | 725076 | 297 | 212 | 0.030 | 0.075 | 0.198 | 0.208 | 0.051 | 259 |
| 02/08/2017 | 00:00:00 | 4532.4 | 727427 | 2.03 | 0.287 | 725392 | 316 | 232 | 0.030 | 0.075 | 0.212 | 0.231 | 0.053 | 283 |
| 02/08/2017 | 01:00:00 | 4533.4 | 727807 | 2.33 | 0.34 | 725771 | 379 | 320 | 0.030 | 0.075 | 0.265 | 0.322 | 0.057 | 379 |
| 02/08/2017 | 02:00:00 | 4534.4 | 728195 | 2.322 | 0.338 | 726158 | 387 | 316 | 0.030 | 0.075 | 0.263 | 0.319 | 0.057 | 376 |
| 02/08/2017 | 03:00:00 | 4535.4 | 728583 | 2.284 | 0.318 | 726545 | 387 | 281 | 0.030 | 0.075 | 0.243 | 0.283 | 0.055 | 338 |
| 02/08/2017 | 04:00:00 | 4536.4 | 728971 | 2.111 | 0.304 | 726932 | 387 | 258 | 0.030 | 0.075 | 0.229 | 0.259 | 0.054 | 313 |
| 02/08/2017 | 05:00:00 | 4537.4 | 729339 | 1.996 | 0.291 | 727300 | 368 | 238 | 0.030 | 0.075 | 0.216 | 0.237 | 0.053 | 290 |
| 02/08/2017 | 06:00:00 | 4538.4 | 729678 | 1.99 | 0.28 | 727638 | 338 | 222 | 0.030 | 0.075 | 0.205 | 0.219 | 0.052 | 271 |
| 02/08/2017 | 07:00:00 | 4539.4 | 729996 | 1.989 | 0.273 | 727955 | 317 | 212 | 0.030 | 0.075 | 0.198 | 0.208 | 0.051 | 259 |
| 02/08/2017 | 08:00:00 | 4540.4 | 730297 | 1.993 | 0.267 | 728255 | 300 | 204 | 0.030 | 0.075 | 0.192 | 0.199 | 0.051 | 249 |
| 02/08/2017 | 09:00:00 | 4541.4 | 730585 | 1.996 | 0.262 | 728542 | 287 | 197 | 0.030 | 0.075 | 0.187 | 0.191 | 0.050 | 241 |
| 02/08/2017 | 10:00:00 | 4542.4 | 730862 | 2.016 | 0.257 | 728818 | 276 | 191 | 0.030 | 0.075 | 0.182 | 0.183 | 0.050 | 233 |
| 02/08/2017 | 11:00:00 | 4543.4 | 731131 | 2.008 | 0.252 | 729087 | 269 | 184 | 0.030 | 0.075 | 0.177 | 0.176 | 0.049 | 225 |
| 02/08/2017 | 12:00:00 | 4544.4 | 731395 | 1.997 | 0.252 | 729350 | 263 | 184 | 0.030 | 0.075 | 0.177 | 0.176 | 0.049 | 225 |
| 02/08/2017 | 13:00:00 | 4545.4 | 731669 | 2.009 | 0.265 | 729623 | 273 | 201 | 0.030 | 0.075 | 0.190 | 0.196 | 0.050 | 246 |
| 02/08/2017 | 14:00:00 | 4546.4 | 731986 | 1.996 | 0.285 | 729939 | 316 | 229 | 0.030 | 0.075 | 0.210 | 0.227 | 0.052 | 280 |
| 02/08/2017 | 15:00:00 | 4547.4 | 732341 | 2 | 0.297 | 730293 | 354 | 247 | 0.030 | 0.075 | 0.222 | 0.247 | 0.053 | 301 |
| 02/08/2017 | 16:00:00 | 4548.4 | 732729 | 2.292 | 0.322 | 730681 | 388 | 288 | 0.030 | 0.075 | 0.247 | 0.290 | 0.056 | 346 |
| 02/08/2017 | 17:00:00 | 4549.4 | 733120 | 2.255 | 0.311 | 731070 | 389 | 270 | 0.030 | 0.075 | 0.236 | 0.271 | 0.055 | 325 |
| 02/08/2017 | 18:00:00 | 4550.4 | 733505 | 1.996 | 0.299 | 731454 | 384 | 250 | 0.030 | 0.075 | 0.224 | 0.250 | 0.054 | 304 |
| 02/08/2017 | 19:00:00 | 4551.4 | 733856 | 1.992 | 0.284 | 731805 | 351 | 228 | 0.030 | 0.075 | 0.209 | 0.226 | 0.052 | 278 |
| 02/08/2017 | 20:00:00 | 4552.4 | 734179 | 1.985 | 0.274 | 732126 | 321 | 213 | 0.030 | 0.075 | 0.199 | 0.210 | 0.051 | 261 |
| 02/08/2017 | 21:00:00 | 4553.4 | 734481 | 1.998 | 0.267 | 732427 | 301 | 204 | 0.030 | 0.075 | 0.192 | 0.199 | 0.051 | 249 |
| 02/08/2017 | 22:00:00 | 4554.4 | 734767 | 1.995 | 0.261 | 732713 | 286 | 196 | 0.030 | 0.075 | 0.186 | 0.190 | 0.050 | 240 |
| 02/08/2017 | 23:00:00 | 4555.4 | 735042 | 1.997 | 0.255 | 732987 | 274 | 188 | 0.030 | 0.075 | 0.180 | 0.180 | 0.049 | 230 |
| 03/08/2017 | 00:00:00 | 4556.4 | 735306 | 1.996 | 0.252 | 733251 | 264 | 184 | 0.030 | 0.075 | 0.177 | 0.176 | 0.049 | 225 |
| 03/08/2017 | 01:00:00 | 4557.4 | 735563 | 2.001 | 0.25 | 733506 | 255 | 182 | 0.030 | 0.075 | 0.175 | 0.173 | 0.049 | 222 |
| 03/08/2017 | 02:00:00 | 4558.4 | 735835 | 2.015 | 0.263 | 733777 | 271 | 198 | 0.030 | 0.075 | 0.188 | 0.193 | 0.050 | 243 |
| 03/08/2017 | 03:00:00 | 4559.4 | 736127 | 2.022 | 0.276 | 734069 | 292 | 216 | 0.030 | 0.075 | 0.201 | 0.213 | 0.051 | 264 |
| 03/08/2017 | 04:00:00 | 4560.4 | 736473 | 2.045 | 0.304 | 734414 | 345 | 258 | 0.030 | 0.075 | 0.229 | 0.259 | 0.054 | 313 |
| 03/08/2017 | 05:00:00 | 4561.4 | 736864 | 2.383 | 0.375 | 734804 | 390 | 388 | 0.030 | 0.075 | 0.300 | 0.388 | 0.060 | 448 |
| 03/08/2017 | 06:00:00 | 4562.4 | 737255 | 2.396 | 0.38 | 735194 | 390 | 398 | 0.030 | 0.075 | 0.305 | 0.398 | 0.060 | 458 |
| 03/08/2017 | 07:00:00 | 4563.4 | 737646 | 2.594 | 0.438 | 735584 | 390 | 530 | 0.030 | 0.075 | 0.363 | 0.517 | 0.065 | 582 |
| 03/08/2017 | 08:00:00 | 4564.4 | 738038 | 2.831 | 0.629 | 735975 | 391 | 1121 | 0.030 | 0.075 | 0.554 | 0.974 | 0.078 | 1052 |
| 03/08/2017 | 09:00:00 | 4565.4 | 738430 | 2.824 | 0.603 | 736366 | 391 | 1026 | 0.030 | 0.075 | 0.528 | 0.906 | 0.076 | 982 |
| 03/08/2017 | 10:00:00 | 4566.4 | 738821 | 2.786 | 0.556 | 736757 | 391 | 867 | 0.030 | 0.075 | 0.481 | 0.788 | 0.073 | 861 |
| 03/08/2017 | 11:00:00 | 4567.4 | 739213 | 2.742 | 0.517 | 737148 | 391 | 746 | 0.030 | 0.075 | 0.442 | 0.694 | 0.070 | 765 |
| 03/08/2017 | 12:00:00 | 4568.4 | 739605 | 2.663 | 0.477 | 737539 | 391 | 632 | 0.030 | 0.075 | 0.402 | 0.602 | 0.068 | 670 |
| 03/08/2017 | 13:00:00 | 4569.4 | 739997 | 2.622 | 0.445 | 737929 | 390 | 548 | 0.030 | 0.075 | 0.370 | 0.532 | 0.065 | 597 |
| 03/08/2017 | 14:00:00 | 4570.4 | 740388 | 2.509 | 0.41 | 738320 | 391 | 464 | 0.030 | 0.075 | 0.335 | 0.458 | 0.063 | 521 |
| 03/08/2017 | 15:00:00 | 4571.4 | 740779 | 2.409 | 0.378 | 738710 | 390 | 394 | 0.030 | | | | | |

| | | | | | | | | | | | | | | |
|------------|----------|---------|--------|-------|-------|--------|-----|-----|-------|-------|-------|-------|-------|-----|
| 04/08/2017 | 06:00:00 | 4586.4 | 746508 | 2.006 | 0.297 | 744424 | 377 | 247 | 0.030 | 0.075 | 0.222 | 0.247 | 0.053 | 301 |
| 04/08/2017 | 07:00:00 | 4587.41 | 746866 | 1.984 | 0.29 | 744782 | 358 | 237 | 0.030 | 0.075 | 0.215 | 0.236 | 0.053 | 288 |
| 04/08/2017 | 08:00:00 | 4588.41 | 747207 | 2.001 | 0.282 | 745121 | 339 | 225 | 0.030 | 0.075 | 0.207 | 0.222 | 0.052 | 275 |
| 04/08/2017 | 09:00:00 | 4589.41 | 747532 | 1.996 | 0.278 | 745445 | 324 | 219 | 0.030 | 0.075 | 0.203 | 0.216 | 0.052 | 268 |
| 04/08/2017 | 10:00:00 | 4590.41 | 747844 | 1.988 | 0.272 | 745757 | 312 | 211 | 0.030 | 0.075 | 0.197 | 0.207 | 0.051 | 258 |
| 04/08/2017 | 11:00:00 | 4591.41 | 748145 | 2.006 | 0.267 | 746056 | 299 | 204 | 0.030 | 0.075 | 0.192 | 0.199 | 0.051 | 249 |
| 04/08/2017 | 12:00:00 | 4592.41 | 748436 | 2.008 | 0.262 | 746346 | 290 | 197 | 0.030 | 0.075 | 0.187 | 0.191 | 0.050 | 241 |
| 04/08/2017 | 13:00:00 | 4593.41 | 748718 | 1.994 | 0.257 | 746628 | 282 | 191 | 0.030 | 0.075 | 0.182 | 0.183 | 0.050 | 233 |
| 04/08/2017 | 14:00:00 | 4594.41 | 748992 | 2.001 | 0.256 | 746901 | 273 | 189 | 0.030 | 0.075 | 0.181 | 0.182 | 0.050 | 231 |
| 04/08/2017 | 15:00:00 | 4595.41 | 749260 | 2.007 | 0.252 | 747168 | 267 | 184 | 0.030 | 0.075 | 0.177 | 0.176 | 0.049 | 225 |
| 04/08/2017 | 16:00:00 | 4596.41 | 749521 | 1.993 | 0.249 | 747429 | 261 | 181 | 0.030 | 0.075 | 0.174 | 0.171 | 0.049 | 220 |
| 04/08/2017 | 17:00:00 | 4597.41 | 749776 | 1.996 | 0.246 | 747683 | 254 | 177 | 0.030 | 0.075 | 0.171 | 0.167 | 0.049 | 216 |
| 04/08/2017 | 18:00:00 | 4598.41 | 750026 | 2.001 | 0.244 | 747932 | 249 | 174 | 0.030 | 0.075 | 0.169 | 0.164 | 0.048 | 213 |
| 04/08/2017 | 19:00:00 | 4599.41 | 750271 | 1.999 | 0.243 | 748176 | 244 | 173 | 0.030 | 0.075 | 0.168 | 0.163 | 0.048 | 211 |
| 04/08/2017 | 20:00:00 | 4600.41 | 750512 | 1.998 | 0.24 | 748416 | 240 | 170 | 0.030 | 0.075 | 0.165 | 0.158 | 0.048 | 206 |
| 04/08/2017 | 21:00:00 | 4601.41 | 750749 | 1.996 | 0.239 | 748652 | 236 | 169 | 0.030 | 0.075 | 0.164 | 0.157 | 0.048 | 205 |
| 04/08/2017 | 22:00:00 | 4602.41 | 750982 | 1.998 | 0.237 | 748885 | 233 | 166 | 0.030 | 0.075 | 0.162 | 0.154 | 0.048 | 202 |
| 04/08/2017 | 23:00:00 | 4603.41 | 751212 | 1.995 | 0.236 | 749114 | 229 | 165 | 0.030 | 0.075 | 0.161 | 0.153 | 0.048 | 200 |
| 05/08/2017 | 00:00:00 | 4604.41 | 751439 | 2 | 0.235 | 749341 | 227 | 164 | 0.030 | 0.075 | 0.160 | 0.151 | 0.048 | 199 |
| 05/08/2017 | 01:00:00 | 4605.41 | 751663 | 2 | 0.233 | 749564 | 223 | 162 | 0.030 | 0.075 | 0.158 | 0.148 | 0.047 | 196 |
| 05/08/2017 | 02:00:00 | 4606.41 | 751884 | 2.001 | 0.231 | 749785 | 221 | 159 | 0.030 | 0.075 | 0.156 | 0.146 | 0.047 | 193 |
| 05/08/2017 | 03:00:00 | 4607.41 | 752103 | 2.001 | 0.231 | 750002 | 217 | 159 | 0.030 | 0.075 | 0.156 | 0.146 | 0.047 | 193 |
| 05/08/2017 | 04:00:00 | 4608.41 | 752319 | 2.002 | 0.23 | 750218 | 216 | 158 | 0.030 | 0.075 | 0.155 | 0.144 | 0.047 | 191 |
| 05/08/2017 | 05:00:00 | 4609.41 | 752533 | 1.998 | 0.229 | 750431 | 213 | 157 | 0.030 | 0.075 | 0.154 | 0.143 | 0.047 | 190 |
| 05/08/2017 | 06:00:00 | 4610.41 | 752750 | 2.003 | 0.234 | 750648 | 217 | 163 | 0.030 | 0.075 | 0.159 | 0.150 | 0.047 | 197 |
| 05/08/2017 | 07:00:00 | 4611.41 | 752976 | 1.996 | 0.234 | 750873 | 225 | 163 | 0.030 | 0.075 | 0.159 | 0.150 | 0.047 | 197 |
| 05/08/2017 | 08:00:00 | 4612.41 | 753197 | 1.998 | 0.23 | 751093 | 220 | 158 | 0.030 | 0.075 | 0.155 | 0.144 | 0.047 | 191 |
| 05/08/2017 | 09:00:00 | 4613.41 | 753412 | 2 | 0.229 | 751308 | 215 | 157 | 0.030 | 0.075 | 0.154 | 0.143 | 0.047 | 190 |
| 05/08/2017 | 10:00:00 | 4614.41 | 753641 | 2.003 | 0.239 | 751536 | 228 | 169 | 0.030 | 0.075 | 0.164 | 0.157 | 0.048 | 205 |
| 05/08/2017 | 11:00:00 | 4615.41 | 753876 | 2.003 | 0.238 | 751770 | 234 | 167 | 0.030 | 0.075 | 0.163 | 0.155 | 0.048 | 203 |
| 05/08/2017 | 12:00:00 | 4616.41 | 754106 | 2 | 0.235 | 751999 | 229 | 164 | 0.030 | 0.075 | 0.160 | 0.151 | 0.048 | 199 |
| 05/08/2017 | 13:00:00 | 4617.41 | 754329 | 2 | 0.231 | 752222 | 223 | 159 | 0.030 | 0.075 | 0.156 | 0.146 | 0.047 | 193 |
| 05/08/2017 | 14:00:00 | 4618.41 | 754545 | 1.999 | 0.227 | 752437 | 215 | 155 | 0.030 | 0.075 | 0.152 | 0.140 | 0.047 | 187 |
| 05/08/2017 | 15:00:00 | 4619.41 | 754753 | 1.997 | 0.223 | 752644 | 207 | 151 | 0.030 | 0.075 | 0.148 | 0.135 | 0.046 | 181 |
| 05/08/2017 | 16:00:00 | 4620.41 | 754954 | 2.001 | 0.222 | 752845 | 201 | 150 | 0.030 | 0.075 | 0.147 | 0.133 | 0.046 | 179 |
| 05/08/2017 | 17:00:00 | 4621.41 | 755151 | 2 | 0.22 | 753041 | 196 | 147 | 0.030 | 0.075 | 0.145 | 0.130 | 0.046 | 176 |
| 05/08/2017 | 18:00:00 | 4622.41 | 755343 | 1.998 | 0.218 | 753232 | 191 | 145 | 0.030 | 0.075 | 0.143 | 0.128 | 0.046 | 174 |
| 05/08/2017 | 19:00:00 | 4623.41 | 755531 | 2.006 | 0.218 | 753420 | 188 | 145 | 0.030 | 0.075 | 0.143 | 0.128 | 0.046 | 174 |
| 05/08/2017 | 20:00:00 | 4624.41 | 755717 | 2 | 0.217 | 753606 | 186 | 144 | 0.030 | 0.075 | 0.142 | 0.126 | 0.046 | 172 |
| 05/08/2017 | 21:00:00 | 4625.41 | 755901 | 1.999 | 0.216 | 753789 | 183 | 143 | 0.030 | 0.075 | 0.141 | 0.125 | 0.046 | 171 |
| 05/08/2017 | 22:00:00 | 4626.41 | 756082 | 2.003 | 0.215 | 753970 | 181 | 142 | 0.030 | 0.075 | 0.140 | 0.124 | 0.045 | 169 |
| 05/08/2017 | 23:00:00 | 4627.41 | 756262 | 1.997 | 0.213 | 754149 | 179 | 140 | 0.030 | 0.075 | 0.138 | 0.121 | 0.045 | 166 |
| 06/08/2017 | 00:00:00 | 4628.41 | 756439 | 1.998 | 0.213 | 754325 | 176 | 140 | 0.030 | 0.075 | 0.138 | 0.121 | 0.045 | 166 |
| 06/08/2017 | 01:00:00 | 4629.41 | 756614 | 2.003 | 0.213 | 754500 | 175 | 140 | 0.030 | 0.075 | 0.138 | 0.121 | 0.045 | 166 |
| 06/08/2017 | 02:00:00 | 4630.41 | 756787 | 1.998 | 0.21 | 754672 | 172 | 137 | 0.030 | 0.075 | 0.135 | 0.117 | 0.045 | 162 |
| 06/08/2017 | 03:00:00 | 4631.41 | 756958 | 1.997 | 0.209 | 754842 | 170 | 136 | 0.030 | 0.075 | 0.134 | 0.116 | 0.045 | 161 |
| 06/08/2017 | 04:00:00 | 4632.41 | 757126 | 2.001 | 0.209 | 755010 | 168 | 136 | 0.030 | 0.075 | 0.134 | 0.116 | 0.045 | 161 |
| 06/08/2017 | 05:00:00 | 4633.41 | 757293 | 2.004 | 0.208 | 755177 | 167 | 135 | 0.030 | 0.075 | 0.133 | 0.115 | 0.045 | 159 |
| 06/08/2017 | 06:00:00 | 4634.41 | 757458 | 2.002 | 0.207 | 755341 | 164 | 134 | 0.030 | 0.075 | 0.132 | 0.113 | 0.045 | 158 |
| 06/08/2017 | 07:00:00 | 4635.41 | 757621 | 1.997 | 0.205 | 755504 | 163 | 133 | 0.030 | 0.075 | 0.130 | 0.111 | 0.044 | 155 |
| 06/08/2017 | 08:00:00 | 4636.41 | 757783 | 1.998 | 0.204 | 755665 | 161 | 132 | 0.030 | 0.075 | 0.129 | 0.109 | 0.044 | 154 |
| 06/08/2017 | 09:00:00 | 4637.41 | 757942 | 1.996 | 0.203 | 755824 | 159 | 131 | 0.030 | 0.075 | 0.128 | 0.108 | 0.044 | 152 |
| 06/08/2017 | 10:00:00 | 4638.41 | 758100 | 2 | 0.203 | 755981 | 157 | 131 | 0.030 | 0.075 | 0.128 | 0.108 | 0.044 | 152 |
| 06/08/2017 | 11:00:00 | 4639.41 | 758256 | 1.998 | 0.201 | 756136 | 155 | 129 | 0.030 | 0.075 | 0.126 | 0.106 | 0.044 | 150 |
| 06/08/2017 | 12:00:00 | 4640.41 | 758409 | 1.997 | 0.199 | 756289 | 153 | 127 | 0.030 | 0.075 | 0.124 | 0.103 | 0.044 | 147 |
| 06/08/2017 | 13:00:00 | 4641.41 | 758561 | 2.001 | 0.202 | 756440 | 151 | 130 | 0.030 | 0.075 | 0.127 | 0.107 | 0.044 | 151 |
| 06/08/2017 | 14:00:00 | 4642.41 | 758725 | 2.011 | 0.214 | 756604 | 164 | 141 | 0.030 | 0.075 | 0.139 | 0.122 | 0.045 | 168 |
| 06/08/2017 | 15:00:00 | 4643.41 | 758891 | 2.008 | 0.241 | 756810 | 206 | 171 | 0.030 | 0.075 | 0.166 | 0.160 | 0.048 | 208 |
| 06/08/2017 | 16:00:00 | 4644.41 | 759212 | 2.049 | 0.288 | 757090 | 280 | 234 | 0.030 | 0.075 | 0.213 | 0.232 | 0.053 | 285 |
| 06/08/2017 | 17:00:00 | 4645.41 | 759599 | 2.646 | 0.466 | 757476 | 386 | 602 | 0.030 | 0.075 | 0.391 | 0.578 | 0.067 | 644 |
| 06/08/2017 | 18:00:00 | 4646.41 | 759990 | 2.672 | 0.476 | 757866 | 390 | 629 | 0.030 | 0.075 | 0.401 | 0.600 | 0.068 | 667 |
| 06/08/2017 | 19:00:00 | 4647.41 | 760382 | 2.511 | 0.415 | 758257 | 391 | 475 | 0.030 | 0.075 | 0.340 | 0.468 | 0.063 | 531 |
| 06/08/2017 | 20:00:00 | 4648.41 | 760773 | 2.357 | 0.36 | 758647 | 390 | 358 | 0.030 | 0.075 | 0.285 | 0.359 | 0.059 | 418 |
| 06/08/2017 | 21:00:00 | 4649.41 | 761164 | 2.281 | 0.318 | 759037 | 390 | 281 | 0.030 | 0.075 | 0.243 | 0.283 | 0.055 | 338 |
| 06/08/2017 | 22:00:00 | 4650.41 | 761550 | 1.984 | 0.297 | 759422 | 385 | 247 | 0.030 | 0.075 | 0.222 | 0.247 | 0.053 | 301 |
| 06/08/2017 | 23:00:00 | 4651.41 | 761894 | 1.986 | 0.28 | 759766 | 344 | 222 | 0.030 | 0.075 | 0.205 | 0.219 | 0.052 | 271 |
| 07/08/2017 | 00:00:00 | 4652.41 | 762211 | 2.005 | 0.276 | 760082 | 316 | 216 | 0.030 | 0.075 | 0.201 | 0.213 | 0.051 | 264 |
| 07/08/2017 | 01:00:00 | 4653.41 | 762530 | 2.029 | 0.29 | 760400 | 318 | 237 | 0.030 | 0.075 | 0.215 | 0.236 | 0.053 | 288 |
| 07/08/2017 | 02:00:00 | 4654.41 | 762910 | 2.461 | 0.401 | 760779 | 379 | 444 | 0.030 | 0.075 | 0.326 | 0.440 | 0.062 | 502 |
| 07/08/2017 | 03:00:00 | 4655.41 | 763302 | 2.649 | 0.467 | 761170 | 391 | 605 | 0.030 | 0.075 | 0.392 | 0.580 | 0.067 | 647 |
| 07/08/2017 | 04:00:00 | 4656.41 | 763693 | 2.562 | 0.432 | 761560 | 390 | 516 | 0.030 | 0.075 | 0.357 | 0.504 | 0.064 | 568 |
| 07/08/2017 | 05:00:00 | 4657.41 | 764084 | 2.522 | 0.422 | 761950 | 390 | 492 | 0.030 | 0.075 | 0.347 | 0.483 | 0.064 | 547 |
| 07/08/2017 | 06:00:00 | 4658.41 | 764475 | 2.459 | 0.407 | 762341 | 391 | 457 | 0.030 | 0.075 | 0.332 | 0.452 | 0.063 | 514 |
| 07/08/2017 | 07:00:00 | 4659.41 | 764866 | 2.383 | 0.372 | 762731 | 390 | 382 | 0.030 | 0.075 | 0.297 | 0.382 | 0.060 | 442 |
| 07/08/2017 | 08:00:00 | 4660.41 | 765257 | 2.338 | 0.347 | 763120 | 389 | 333 | 0.030 | 0.075 | 0.272 | 0.335 | 0.058 | 393 |
| 07/08/2017 | 09:00:00 | 4661.41 | 765647 | 2.301 | 0.325 | 763510 | 390 | 293 | 0.030 | 0.075 | 0.250 | 0.295 | 0.056 | 351 |
| 07/08/2017 | 10:00:00 | 4662.41 | 766038 | 2.231 | 0.31 | 763899 | 389 | 268 | 0.030 | 0.075 | 0.235 | 0.269 | 0.055 | 324 |

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|------------|----------|---------|--------|-------|-------|--------|-----|-----|-------|-------|-------|-------|-------|-----|
| 08/08/2017 | 02:00:00 | 4678.41 | 770340 | 1.999 | 0.23 | 768189 | 212 | 158 | 0.030 | 0.075 | 0.155 | 0.144 | 0.047 | 191 |
| 08/08/2017 | 03:00:00 | 4679.41 | 770548 | 1.995 | 0.228 | 768397 | 208 | 156 | 0.030 | 0.075 | 0.153 | 0.141 | 0.047 | 188 |
| 08/08/2017 | 04:00:00 | 4680.41 | 770753 | 1.995 | 0.225 | 768601 | 204 | 153 | 0.030 | 0.075 | 0.150 | 0.137 | 0.046 | 184 |
| 08/08/2017 | 05:00:00 | 4681.41 | 770954 | 1.998 | 0.224 | 768801 | 200 | 152 | 0.030 | 0.075 | 0.149 | 0.136 | 0.046 | 182 |
| 08/08/2017 | 06:00:00 | 4682.41 | 771151 | 1.996 | 0.221 | 768998 | 197 | 149 | 0.030 | 0.075 | 0.146 | 0.132 | 0.046 | 178 |
| 08/08/2017 | 07:00:00 | 4683.41 | 771345 | 2.001 | 0.221 | 769192 | 194 | 149 | 0.030 | 0.075 | 0.146 | 0.132 | 0.046 | 178 |
| 08/08/2017 | 08:00:00 | 4684.41 | 771536 | 2 | 0.22 | 769382 | 190 | 147 | 0.030 | 0.075 | 0.145 | 0.130 | 0.046 | 176 |
| 08/08/2017 | 09:00:00 | 4685.41 | 771724 | 2.007 | 0.218 | 769569 | 187 | 145 | 0.030 | 0.075 | 0.143 | 0.128 | 0.046 | 174 |
| 08/08/2017 | 10:00:00 | 4686.41 | 771908 | 2.005 | 0.217 | 769753 | 184 | 144 | 0.030 | 0.075 | 0.142 | 0.126 | 0.046 | 172 |
| 08/08/2017 | 11:00:00 | 4687.41 | 772089 | 1.996 | 0.214 | 769934 | 181 | 141 | 0.030 | 0.075 | 0.139 | 0.122 | 0.045 | 168 |
| 08/08/2017 | 12:00:00 | 4688.41 | 772267 | 2.003 | 0.213 | 770110 | 176 | 140 | 0.030 | 0.075 | 0.138 | 0.121 | 0.045 | 166 |
| 08/08/2017 | 13:00:00 | 4689.41 | 772441 | 1.994 | 0.211 | 770284 | 174 | 138 | 0.030 | 0.075 | 0.136 | 0.118 | 0.045 | 163 |
| 08/08/2017 | 14:00:00 | 4690.41 | 772611 | 2.001 | 0.21 | 770454 | 170 | 137 | 0.030 | 0.075 | 0.135 | 0.117 | 0.045 | 162 |
| 08/08/2017 | 15:00:00 | 4691.41 | 772785 | 2 | 0.215 | 770627 | 173 | 142 | 0.030 | 0.075 | 0.140 | 0.124 | 0.045 | 169 |
| 08/08/2017 | 16:00:00 | 4692.41 | 772969 | 1.994 | 0.215 | 770811 | 184 | 142 | 0.030 | 0.075 | 0.140 | 0.124 | 0.045 | 169 |
| 08/08/2017 | 17:00:00 | 4693.41 | 773147 | 1.996 | 0.212 | 770988 | 177 | 139 | 0.030 | 0.075 | 0.137 | 0.120 | 0.045 | 165 |
| 08/08/2017 | 18:00:00 | 4694.41 | 773320 | 2.002 | 0.21 | 771161 | 173 | 137 | 0.030 | 0.075 | 0.135 | 0.117 | 0.045 | 162 |
| 08/08/2017 | 19:00:00 | 4695.41 | 773490 | 2.001 | 0.208 | 771331 | 170 | 135 | 0.030 | 0.075 | 0.133 | 0.115 | 0.045 | 159 |
| 08/08/2017 | 20:00:00 | 4696.41 | 773658 | 1.996 | 0.208 | 771497 | 166 | 135 | 0.030 | 0.075 | 0.133 | 0.115 | 0.045 | 159 |
| 08/08/2017 | 21:00:00 | 4697.41 | 773822 | 2 | 0.207 | 771661 | 164 | 134 | 0.030 | 0.075 | 0.132 | 0.113 | 0.045 | 158 |
| 08/08/2017 | 22:00:00 | 4698.41 | 773984 | 2.006 | 0.205 | 771823 | 162 | 133 | 0.030 | 0.075 | 0.130 | 0.111 | 0.044 | 155 |
| 08/08/2017 | 23:00:00 | 4699.41 | 774143 | 2.003 | 0.203 | 771981 | 158 | 131 | 0.030 | 0.075 | 0.128 | 0.108 | 0.044 | 152 |
| 09/08/2017 | 00:00:00 | 4700.41 | 774300 | 2 | 0.203 | 772138 | 157 | 131 | 0.030 | 0.075 | 0.128 | 0.108 | 0.044 | 152 |
| 09/08/2017 | 01:00:00 | 4701.41 | 774456 | 2.005 | 0.202 | 772293 | 155 | 130 | 0.030 | 0.075 | 0.127 | 0.107 | 0.044 | 151 |
| 09/08/2017 | 02:00:00 | 4702.41 | 774609 | 1.998 | 0.2 | 772446 | 153 | 128 | 0.030 | 0.075 | 0.125 | 0.104 | 0.044 | 148 |
| 09/08/2017 | 03:00:00 | 4703.41 | 774761 | 2.003 | 0.2 | 772597 | 151 | 128 | 0.030 | 0.075 | 0.125 | 0.104 | 0.044 | 148 |
| 09/08/2017 | 04:00:00 | 4704.41 | 774911 | 2.001 | 0.199 | 772747 | 150 | 127 | 0.030 | 0.075 | 0.124 | 0.103 | 0.044 | 147 |
| 09/08/2017 | 05:00:00 | 4705.41 | 775059 | 1.998 | 0.198 | 772895 | 148 | 126 | 0.030 | 0.075 | 0.123 | 0.102 | 0.044 | 146 |
| 09/08/2017 | 06:00:00 | 4706.41 | 775206 | 2.005 | 0.197 | 773041 | 146 | 125 | 0.030 | 0.075 | 0.122 | 0.101 | 0.043 | 144 |
| 09/08/2017 | 07:00:00 | 4707.41 | 775351 | 2.003 | 0.195 | 773186 | 145 | 123 | 0.030 | 0.075 | 0.120 | 0.098 | 0.043 | 141 |
| 09/08/2017 | 08:00:00 | 4708.41 | 775495 | 1.997 | 0.195 | 773330 | 144 | 123 | 0.030 | 0.075 | 0.120 | 0.098 | 0.043 | 141 |
| 09/08/2017 | 09:00:00 | 4709.41 | 775638 | 1.997 | 0.194 | 773472 | 142 | 122 | 0.030 | 0.075 | 0.119 | 0.097 | 0.043 | 140 |
| 09/08/2017 | 10:00:00 | 4710.41 | 775778 | 2.001 | 0.193 | 773612 | 140 | 122 | 0.030 | 0.075 | 0.118 | 0.096 | 0.043 | 139 |
| 09/08/2017 | 11:00:00 | 4711.42 | 775917 | 2 | 0.192 | 773751 | 139 | 121 | 0.030 | 0.075 | 0.117 | 0.095 | 0.043 | 137 |
| 09/08/2017 | 12:00:00 | 4712.42 | 776055 | 1.997 | 0.192 | 773888 | 137 | 121 | 0.030 | 0.075 | 0.117 | 0.095 | 0.043 | 137 |
| 09/08/2017 | 13:00:00 | 4713.42 | 776190 | 1.998 | 0.191 | 774023 | 135 | 120 | 0.030 | 0.075 | 0.116 | 0.093 | 0.043 | 136 |
| 09/08/2017 | 14:00:00 | 4714.42 | 776323 | 2.003 | 0.188 | 774155 | 132 | 117 | 0.030 | 0.075 | 0.113 | 0.090 | 0.042 | 132 |
| 09/08/2017 | 15:00:00 | 4715.42 | 776454 | 2.002 | 0.187 | 774286 | 131 | 116 | 0.030 | 0.075 | 0.112 | 0.089 | 0.042 | 131 |
| 09/08/2017 | 16:00:00 | 4716.42 | 776582 | 1.999 | 0.186 | 774414 | 128 | 116 | 0.030 | 0.075 | 0.111 | 0.087 | 0.042 | 130 |
| 09/08/2017 | 17:00:00 | 4717.42 | 776709 | 1.999 | 0.186 | 774539 | 125 | 116 | 0.030 | 0.075 | 0.111 | 0.087 | 0.042 | 130 |
| 09/08/2017 | 18:00:00 | 4718.42 | 776833 | 1.997 | 0.185 | 774664 | 125 | 115 | 0.030 | 0.075 | 0.110 | 0.086 | 0.042 | 128 |
| 09/08/2017 | 19:00:00 | 4719.42 | 776957 | 1.999 | 0.185 | 774788 | 124 | 115 | 0.030 | 0.075 | 0.110 | 0.086 | 0.042 | 128 |
| 09/08/2017 | 20:00:00 | 4720.42 | 777081 | 2.002 | 0.185 | 774911 | 123 | 115 | 0.030 | 0.075 | 0.110 | 0.086 | 0.042 | 128 |
| 09/08/2017 | 21:00:00 | 4721.42 | 777204 | 2.001 | 0.185 | 775034 | 123 | 115 | 0.030 | 0.075 | 0.110 | 0.086 | 0.042 | 128 |
| 09/08/2017 | 22:00:00 | 4722.42 | 777326 | 1.999 | 0.185 | 775155 | 121 | 115 | 0.030 | 0.075 | 0.110 | 0.086 | 0.042 | 128 |
| 09/08/2017 | 23:00:00 | 4723.42 | 777447 | 2 | 0.183 | 775276 | 121 | 113 | 0.030 | 0.075 | 0.108 | 0.084 | 0.042 | 126 |
| 10/08/2017 | 00:00:00 | 4724.42 | 777568 | 1.999 | 0.183 | 775396 | 120 | 113 | 0.030 | 0.075 | 0.108 | 0.084 | 0.042 | 126 |
| 10/08/2017 | 01:00:00 | 4725.42 | 777688 | 2.003 | 0.183 | 775516 | 120 | 113 | 0.030 | 0.075 | 0.108 | 0.084 | 0.042 | 126 |
| 10/08/2017 | 02:00:00 | 4726.42 | 777807 | 2.003 | 0.182 | 775635 | 119 | 112 | 0.030 | 0.075 | 0.107 | 0.083 | 0.042 | 124 |
| 10/08/2017 | 03:00:00 | 4727.42 | 777925 | 2.003 | 0.182 | 775752 | 117 | 112 | 0.030 | 0.075 | 0.107 | 0.083 | 0.042 | 124 |
| 10/08/2017 | 04:00:00 | 4728.42 | 778042 | 2 | 0.182 | 775869 | 117 | 112 | 0.030 | 0.075 | 0.107 | 0.083 | 0.042 | 124 |
| 10/08/2017 | 05:00:00 | 4729.42 | 778158 | 2 | 0.181 | 775985 | 116 | 112 | 0.030 | 0.075 | 0.106 | 0.082 | 0.042 | 123 |
| 10/08/2017 | 06:00:00 | 4730.42 | 778274 | 1.976 | 0.18 | 776100 | 115 | 111 | 0.030 | 0.075 | 0.105 | 0.080 | 0.042 | 122 |
| 10/08/2017 | 07:00:00 | 4731.42 | 778389 | 1.657 | 0.18 | 776216 | 116 | 111 | 0.030 | 0.075 | 0.105 | 0.080 | 0.042 | 122 |
| 10/08/2017 | 08:00:00 | 4732.29 | 778490 | 2.431 | 0.18 | 776316 | 100 | 111 | 0.030 | 0.075 | 0.105 | 0.080 | 0.042 | 122 |
| 10/08/2017 | 09:00:00 | 4732.29 | 778490 | 2.433 | 0.178 | 776316 | 0 | 109 | 0.030 | 0.075 | 0.103 | 0.078 | 0.041 | 119 |
| 10/08/2017 | 10:00:00 | 4732.29 | 778490 | 2.432 | 0.177 | 776316 | 0 | 109 | 0.030 | 0.075 | 0.102 | 0.077 | 0.041 | 118 |
| 10/08/2017 | 11:00:00 | 4732.29 | 778490 | 2.43 | 0.177 | 776316 | 0 | 109 | 0.030 | 0.075 | 0.102 | 0.077 | 0.041 | 118 |
| 10/08/2017 | 12:00:00 | 4732.29 | 778490 | 2.429 | 0.176 | 776316 | 0 | 108 | 0.030 | 0.075 | 0.101 | 0.076 | 0.041 | 117 |
| 10/08/2017 | 13:00:00 | 4732.29 | 778490 | 2.428 | 0.175 | 776316 | 0 | 107 | 0.030 | 0.075 | 0.100 | 0.075 | 0.041 | 116 |
| 10/08/2017 | 14:00:00 | 4732.29 | 778490 | 2.427 | 0.173 | 776316 | 0 | 105 | 0.030 | 0.075 | 0.098 | 0.072 | 0.041 | 113 |
| 10/08/2017 | 15:00:00 | 4732.29 | 778490 | 2.426 | 0.173 | 776316 | 0 | 105 | 0.030 | 0.075 | 0.098 | 0.072 | 0.041 | 113 |
| 10/08/2017 | 16:00:00 | 4732.29 | 778490 | 2.426 | 0.171 | 776316 | 0 | 104 | 0.030 | 0.075 | 0.096 | 0.070 | 0.041 | 111 |
| 10/08/2017 | 17:00:00 | 4732.29 | 778490 | 2.426 | 0.171 | 776316 | 0 | 104 | 0.030 | 0.075 | 0.096 | 0.070 | 0.041 | 111 |
| 10/08/2017 | 18:00:00 | 4732.64 | 778523 | 1.467 | 0.171 | 776349 | 33 | 104 | 0.030 | 0.075 | 0.096 | 0.070 | 0.041 | 111 |
| 10/08/2017 | 19:00:00 | 4733.64 | 778622 | 1.999 | 0.171 | 776447 | 98 | 104 | 0.030 | 0.075 | 0.096 | 0.070 | 0.041 | 111 |
| 10/08/2017 | 20:00:00 | 4734.64 | 778721 | 2 | 0.17 | 776546 | 99 | 103 | 0.030 | 0.075 | 0.095 | 0.069 | 0.040 | 110 |
| 10/08/2017 | 21:00:00 | 4735.64 | 778820 | 1.997 | 0.17 | 776645 | 99 | 103 | 0.030 | 0.075 | 0.095 | 0.069 | 0.040 | 110 |
| 10/08/2017 | 22:00:00 | 4736.64 | 778918 | 2.002 | 0.171 | 776744 | 99 | 104 | 0.030 | 0.075 | 0.096 | 0.070 | 0.041 | 111 |
| 10/08/2017 | 23:00:00 | 4737.64 | 779016 | 1.997 | 0.17 | 776841 | 97 | 103 | 0.030 | 0.075 | 0.095 | 0.069 | 0.040 | 110 |
| 11/08/2017 | 00:00:00 | 4738.64 | 779114 | 1.999 | 0.17 | 776938 | 97 | 103 | 0.030 | 0.075 | 0.095 | 0.069 | 0.040 | 110 |
| 11/08/2017 | 01:00:00 | 4739.64 | 779211 | 2 | 0.17 | 777035 | 97 | 103 | 0.030 | 0.075 | 0.095 | 0.069 | 0.040 | 110 |
| 11/08/2017 | 02:00:00 | 4740.64 | 779307 | 2.002 | 0.17 | 777131 | 96 | 103 | 0.030 | 0.075 | 0.095 | 0.069 | 0.040 | 110 |
| 11/08/2017 | 03:00:00 | 4741.64 | 779403 | 1.998 | 0.169 | 777227 | 96 | 103 | 0.030 | 0.075 | 0.094 | 0.068 | 0.040 | 108 |
| 11/08/2017 | 04:00:00 | 4742.64 | 779498 | 2 | 0.169 | 777321 | 94 | 103 | 0.030 | 0.075 | 0.094 | 0.068 | 0.040 | 108 |
| 11/08/2017 | 05:00:00 | 4743.64 | 779592 | 1.996 | 0.168 | 777415 | 94 | 102 | 0.030 | 0.075 | 0.093 | 0.067 | 0.040 | 107 |
| 11/08/2017 | 06:00:00 | 4744.64 | 779685 | 2.002 | 0.168 | 777508 | 93 | 102 | 0.030 | 0.075 | 0.093 | 0.067 | 0.040 | 107 |
| 11/08/2017 | 07:00:00 | 4745.59 | 779773 | 2.412 | 0.168 | 777596 | 88 | 102 | 0.030 | 0.075 | 0.09 | | | |

| | | | | | | | | | | | | | | |
|------------|----------|----------|---------|-------|-------|---------|-----|-----|-------|-------|-------|-------|-------|-----|
| 11/08/2017 | 22:00:00 | 4756.28 | 780899 | 1.995 | 0.185 | 778720 | 126 | 115 | 0.030 | 0.075 | 0.110 | 0.086 | 0.042 | 128 |
| 11/08/2017 | 23:00:00 | 4757.28 | 781018 | 1.999 | 0.181 | 778838 | 118 | 112 | 0.030 | 0.075 | 0.106 | 0.082 | 0.042 | 123 |
| 12/08/2017 | 00:00:00 | 4758.28 | 781133 | 1.999 | 0.178 | 778953 | 115 | 109 | 0.030 | 0.075 | 0.103 | 0.078 | 0.041 | 119 |
| 12/08/2017 | 01:00:00 | 4759.28 | 781243 | 2.001 | 0.176 | 779063 | 110 | 108 | 0.030 | 0.075 | 0.101 | 0.076 | 0.041 | 117 |
| 12/08/2017 | 02:00:00 | 4760.28 | 781350 | 1.997 | 0.175 | 779169 | 106 | 107 | 0.030 | 0.075 | 0.100 | 0.075 | 0.041 | 116 |
| 12/08/2017 | 03:00:00 | 4761.28 | 781454 | 2.003 | 0.172 | 779272 | 103 | 105 | 0.030 | 0.075 | 0.097 | 0.071 | 0.041 | 112 |
| 12/08/2017 | 04:00:00 | 4762.28 | 781554 | 2 | 0.171 | 779372 | 100 | 104 | 0.030 | 0.075 | 0.096 | 0.070 | 0.041 | 111 |
| 12/08/2017 | 05:00:00 | 4763.28 | 781652 | 2.003 | 0.17 | 779470 | 98 | 103 | 0.030 | 0.075 | 0.095 | 0.069 | 0.040 | 110 |
| 12/08/2017 | 06:00:00 | 4764.28 | 781748 | 2.031 | 0.169 | 779566 | 96 | 103 | 0.030 | 0.075 | 0.094 | 0.068 | 0.040 | 108 |
| 12/08/2017 | 07:00:00 | 4765.28 | 781843 | 1.998 | 0.169 | 779661 | 95 | 103 | 0.030 | 0.075 | 0.094 | 0.068 | 0.040 | 108 |
| 12/08/2017 | 08:00:00 | 4766.28 | 781938 | 2.001 | 0.17 | 779756 | 95 | 103 | 0.030 | 0.075 | 0.095 | 0.069 | 0.040 | 110 |
| 12/08/2017 | 09:00:00 | 4767.28 | 782034 | 2.002 | 0.17 | 779852 | 96 | 103 | 0.030 | 0.075 | 0.095 | 0.069 | 0.040 | 110 |
| 12/08/2017 | 10:00:00 | 4768.28 | 782137 | 2.001 | 0.177 | 779954 | 102 | 109 | 0.030 | 0.075 | 0.102 | 0.077 | 0.041 | 118 |
| 12/08/2017 | 11:00:00 | 4769.28 | 782272 | 2.014 | 0.209 | 780089 | 135 | 136 | 0.030 | 0.075 | 0.134 | 0.116 | 0.045 | 161 |
| 12/08/2017 | 12:00:00 | 4770.28 | 782519 | 1.999 | 0.264 | 780335 | 246 | 200 | 0.030 | 0.075 | 0.189 | 0.194 | 0.050 | 244 |
| 12/08/2017 | 13:00:00 | 4771.28 | 782798 | 1.983 | 0.25 | 780614 | 279 | 182 | 0.030 | 0.075 | 0.175 | 0.173 | 0.049 | 222 |
| 12/08/2017 | 14:00:00 | 4772.28 | 783035 | 1.937 | 0.228 | 780850 | 236 | 156 | 0.030 | 0.075 | 0.153 | 0.141 | 0.047 | 188 |
| 12/08/2017 | 15:00:00 | 4773.28 | 783229 | 1.995 | 0.213 | 781044 | 194 | 140 | 0.030 | 0.075 | 0.138 | 0.121 | 0.045 | 166 |
| 12/08/2017 | 16:00:00 | 4774.28 | 783394 | 1.996 | 0.201 | 781208 | 164 | 129 | 0.030 | 0.075 | 0.126 | 0.106 | 0.044 | 150 |
| 12/08/2017 | 17:00:00 | 4775.28 | 783539 | 1.994 | 0.192 | 781353 | 145 | 121 | 0.030 | 0.075 | 0.117 | 0.095 | 0.043 | 137 |
| 12/08/2017 | 18:00:00 | 4776.28 | 783669 | 2.002 | 0.186 | 781483 | 130 | 116 | 0.030 | 0.075 | 0.111 | 0.087 | 0.042 | 130 |
| 12/08/2017 | 19:00:00 | 4777.28 | 783789 | 2.001 | 0.181 | 781602 | 119 | 112 | 0.030 | 0.075 | 0.106 | 0.082 | 0.042 | 123 |
| 12/08/2017 | 20:00:00 | 4778.28 | 783902 | 1.996 | 0.178 | 781714 | 112 | 109 | 0.030 | 0.075 | 0.103 | 0.078 | 0.041 | 119 |
| 12/08/2017 | 21:00:00 | 4779.28 | 784008 | 1.999 | 0.175 | 781821 | 107 | 107 | 0.030 | 0.075 | 0.100 | 0.075 | 0.041 | 116 |
| 12/08/2017 | 22:00:00 | 4780.28 | 784111 | 1.996 | 0.172 | 781923 | 102 | 105 | 0.030 | 0.075 | 0.097 | 0.071 | 0.041 | 112 |
| 12/08/2017 | 23:00:00 | 4781.28 | 784209 | 2 | 0.171 | 782021 | 98 | 104 | 0.030 | 0.075 | 0.096 | 0.070 | 0.041 | 111 |
| 13/08/2017 | 00:00:00 | 4782.28 | 784305 | 1.998 | 0.169 | 782117 | 96 | 103 | 0.030 | 0.075 | 0.094 | 0.068 | 0.040 | 108 |
| 13/08/2017 | 01:00:00 | 4783.28 | 784399 | 2.002 | 0.168 | 782211 | 94 | 102 | 0.030 | 0.075 | 0.093 | 0.067 | 0.040 | 107 |
| 13/08/2017 | 02:00:00 | 4784.28 | 784491 | 2.001 | 0.166 | 782302 | 91 | 100 | 0.030 | 0.075 | 0.091 | 0.065 | 0.040 | 105 |
| 13/08/2017 | 03:00:00 | 4785.28 | 784580 | 2.001 | 0.165 | 782392 | 90 | 100 | 0.030 | 0.075 | 0.090 | 0.064 | 0.040 | 104 |
| 13/08/2017 | 04:00:00 | 4786.28 | 784668 | 1.998 | 0.165 | 782479 | 87 | 100 | 0.030 | 0.075 | 0.090 | 0.064 | 0.040 | 104 |
| 13/08/2017 | 05:00:00 | 4787.28 | 784754 | 2 | 0.164 | 782565 | 86 | 99 | 0.030 | 0.075 | 0.089 | 0.063 | 0.040 | 102 |
| 13/08/2017 | 06:00:00 | 4788.28 | 784838 | 1.998 | 0.163 | 782649 | 84 | 98 | 0.030 | 0.075 | 0.088 | 0.062 | 0.040 | 101 |
| 13/08/2017 | 07:00:00 | 4789.28 | 784921 | 1.998 | 0.161 | 782731 | 82 | 97 | 0.030 | 0.075 | 0.086 | 0.060 | 0.039 | 99 |
| 13/08/2017 | 08:00:00 | 4790.28 | 785003 | 1.997 | 0.161 | 782813 | 82 | 97 | 0.030 | 0.075 | 0.086 | 0.060 | 0.039 | 99 |
| 13/08/2017 | 09:00:00 | 4791.28 | 785083 | 2.002 | 0.16 | 782893 | 80 | 96 | 0.030 | 0.075 | 0.085 | 0.059 | 0.039 | 98 |
| 13/08/2017 | 10:00:00 | 4792.28 | 785163 | 2.002 | 0.159 | 782973 | 80 | 96 | 0.030 | 0.075 | 0.084 | 0.058 | 0.039 | 97 |
| 13/08/2017 | 11:00:00 | 4793.28 | 785242 | 1.998 | 0.159 | 783051 | 78 | 96 | 0.030 | 0.075 | 0.084 | 0.058 | 0.039 | 97 |
| 13/08/2017 | 12:00:00 | 4794.28 | 785318 | 1.949 | 0.158 | 783128 | 77 | 95 | 0.030 | 0.075 | 0.083 | 0.056 | 0.039 | 95 |
| 13/08/2017 | 13:00:00 | 4795.28 | 785395 | 1.538 | 0.156 | 783205 | 77 | 94 | 0.030 | 0.075 | 0.081 | 0.054 | 0.039 | 93 |
| 13/08/2017 | 14:00:00 | 4795.81 | 785435 | 2.415 | 0.157 | 783244 | 39 | 94 | 0.030 | 0.075 | 0.082 | 0.055 | 0.039 | 94 |
| 13/08/2017 | 15:00:00 | 4795.81 | 785435 | 2.414 | 0.154 | 783244 | 0 | 93 | 0.030 | 0.075 | 0.079 | 0.052 | 0.038 | 91 |
| 13/08/2017 | 16:00:00 | 4795.81 | 785435 | 2.414 | 0.154 | 783244 | 0 | 93 | 0.030 | 0.075 | 0.079 | 0.052 | 0.038 | 91 |
| 13/08/2017 | 17:00:00 | 4795.81 | 785435 | 2.414 | 0.153 | 783244 | 0 | 92 | 0.030 | 0.075 | 0.078 | 0.051 | 0.038 | 90 |
| 13/08/2017 | 18:00:00 | 4795.81 | 785435 | 2.414 | 0.153 | 783244 | 0 | 92 | 0.030 | 0.075 | 0.078 | 0.051 | 0.038 | 90 |
| 13/08/2017 | 19:00:00 | 4795.81 | 785435 | 2.414 | 0.153 | 783244 | 0 | 92 | 0.030 | 0.075 | 0.078 | 0.051 | 0.038 | 90 |
| 13/08/2017 | 20:00:00 | 4796.17 | 785458 | 2.403 | 0.153 | 783267 | 23 | 92 | 0.030 | 0.075 | 0.078 | 0.051 | 0.038 | 90 |
| 13/08/2017 | 21:00:00 | 4797.14 | 785524 | 1.996 | 0.152 | 783333 | 66 | 91 | 0.030 | 0.075 | 0.077 | 0.050 | 0.038 | 89 |
| 13/08/2017 | 22:00:00 | 4798.14 | 785591 | 2.005 | 0.153 | 783400 | 67 | 92 | 0.030 | 0.075 | 0.078 | 0.051 | 0.038 | 90 |
| 13/08/2017 | 23:00:00 | 4799.14 | 785659 | 1.998 | 0.152 | 783467 | 67 | 91 | 0.030 | 0.075 | 0.077 | 0.050 | 0.038 | 89 |
| 01/03/2020 | 00:00:00 | 22865.68 | 4295601 | 2.402 | 0.363 | 4286398 | | 364 | 0.030 | 0.075 | 0.288 | 0.365 | 0.059 | 424 |
| 01/03/2020 | 01:00:00 | 22866.68 | 4295992 | 2.398 | 0.364 | 4286789 | 391 | 366 | 0.030 | 0.075 | 0.289 | 0.367 | 0.059 | 426 |
| 01/03/2020 | 02:00:00 | 22867.68 | 4296383 | 2.384 | 0.357 | 4287179 | 390 | 352 | 0.030 | 0.075 | 0.282 | 0.354 | 0.059 | 412 |
| 01/03/2020 | 03:00:00 | 22868.68 | 4296774 | 2.376 | 0.344 | 4287570 | 391 | 327 | 0.030 | 0.075 | 0.269 | 0.330 | 0.057 | 387 |
| 01/03/2020 | 04:00:00 | 22869.68 | 4297165 | 2.36 | 0.338 | 4287960 | 390 | 316 | 0.030 | 0.075 | 0.263 | 0.319 | 0.057 | 376 |
| 01/03/2020 | 05:00:00 | 22870.68 | 4297556 | 2.357 | 0.333 | 4288350 | 390 | 307 | 0.030 | 0.075 | 0.258 | 0.310 | 0.057 | 366 |
| 01/03/2020 | 06:00:00 | 22871.68 | 4297947 | 2.35 | 0.323 | 4288740 | 390 | 290 | 0.030 | 0.075 | 0.248 | 0.292 | 0.056 | 347 |
| 01/03/2020 | 07:00:00 | 22872.68 | 4298338 | 2.343 | 0.322 | 4289130 | 390 | 288 | 0.030 | 0.075 | 0.247 | 0.290 | 0.056 | 346 |
| 01/03/2020 | 08:00:00 | 22873.68 | 4298729 | 2.327 | 0.318 | 4289521 | 391 | 281 | 0.030 | 0.075 | 0.243 | 0.283 | 0.055 | 338 |
| 01/03/2020 | 09:00:00 | 22874.68 | 4299119 | 2.306 | 0.31 | 4289911 | 390 | 268 | 0.030 | 0.075 | 0.235 | 0.269 | 0.055 | 324 |
| 01/03/2020 | 10:00:00 | 22875.68 | 4299510 | 2.276 | 0.305 | 4290301 | 390 | 260 | 0.030 | 0.075 | 0.230 | 0.261 | 0.054 | 315 |
| 01/03/2020 | 11:00:00 | 22876.68 | 4299901 | 2.258 | 0.304 | 4290691 | 390 | 258 | 0.030 | 0.075 | 0.229 | 0.259 | 0.054 | 313 |
| 01/03/2020 | 12:00:00 | 22877.68 | 4300292 | 2.221 | 0.299 | 4291081 | 390 | 250 | 0.030 | 0.075 | 0.224 | 0.250 | 0.054 | 304 |
| 01/03/2020 | 13:00:00 | 22878.68 | 4300682 | 2.03 | 0.298 | 4291470 | 389 | 249 | 0.030 | 0.075 | 0.223 | 0.249 | 0.053 | 302 |
| 01/03/2020 | 14:00:00 | 22879.68 | 4301068 | 1.997 | 0.293 | 4291855 | 385 | 241 | 0.030 | 0.075 | 0.218 | 0.240 | 0.053 | 294 |
| 01/03/2020 | 15:00:00 | 22880.68 | 4301447 | 2.012 | 0.289 | 4292234 | 379 | 235 | 0.030 | 0.075 | 0.214 | 0.234 | 0.053 | 287 |
| 01/03/2020 | 16:00:00 | 22881.68 | 4301819 | 1.988 | 0.289 | 4292605 | 371 | 235 | 0.030 | 0.075 | 0.214 | 0.234 | 0.053 | 287 |
| 01/03/2020 | 17:00:00 | 22882.68 | 4302185 | 1.995 | 0.284 | 4292970 | 365 | 228 | 0.030 | 0.075 | 0.209 | 0.226 | 0.052 | 278 |
| 01/03/2020 | 18:00:00 | 22883.68 | 4302543 | 2.004 | 0.281 | 4293328 | 358 | 223 | 0.030 | 0.075 | 0.206 | 0.221 | 0.052 | 273 |
| 01/03/2020 | 19:00:00 | 22884.68 | 4302899 | 2.001 | 0.283 | 4293682 | 354 | 226 | 0.030 | 0.075 | 0.208 | 0.224 | 0.052 | 276 |
| 01/03/2020 | 20:00:00 | 22885.68 | 4303249 | 2.009 | 0.277 | 4294032 | 350 | 218 | 0.030 | 0.075 | 0.202 | 0.214 | 0.052 | 266 |
| 01/03/2020 | 21:00:00 | 22886.68 | 4303594 | 1.997 | 0.277 | 4294376 | 344 | 218 | 0.030 | 0.075 | 0.202 | 0.214 | 0.052 | 266 |
| 01/03/2020 | 22:00:00 | 22887.68 | 4303932 | 1.998 | 0.272 | 4294713 | 337 | 211 | 0.030 | 0.075 | 0.197 | 0.207 | 0.051 | 258 |
| 01/03/2020 | 23:00:00 | 22888.68 | 4304262 | 1.998 | 0.271 | 4295043 | 330 | 209 | 0.030 | 0.075 | 0.196 | 0.205 | 0.051 | 256 |
| 02/03/2020 | 00:00:00 | 22889.68 | 4304588 | 1.997 | 0.271 | 4295368 | 325 | 209 | 0.030 | 0.075 | 0.196 | 0.205 | 0.051 | 256 |
| 02/03/2020 | 01:00:00 | 22890.68 | 4304911 | 2.006 | 0.267 | 4295690 | 322 | 204 | 0.030 | 0.075 | 0.192 | 0.199 | 0.051 | 249 |
| 02/03/2020 | 02:00:00 | 22891.68 | 4305229 | 1.992 | 0.264 | 4296007 | 317 | 200 | 0.030 | 0.075 | 0.189 | 0.194 | 0.050 | 244 |
| 02/03/2020 | 03:00:00 | 22892.68 | 4 | | | | | | | | | | | |

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|------------|----------|----------|---------|-------|-------|-----------|-----|-----|-------|-------|-------|-------|-------|-----|
| 02/03/2020 | 18:00:00 | 22907.68 | 4309903 | 2.014 | 0.242 | 4300671 | 273 | 172 | 0.030 | 0.075 | 0.167 | 0.161 | 0.048 | 209 |
| 02/03/2020 | 19:00:00 | 22908.68 | 4310174 | 2.008 | 0.243 | 4300942 | 271 | 173 | 0.030 | 0.075 | 0.168 | 0.163 | 0.048 | 211 |
| 02/03/2020 | 20:00:00 | 22909.68 | 4310445 | 2.01 | 0.242 | 4301211 | 269 | 172 | 0.030 | 0.075 | 0.167 | 0.161 | 0.048 | 209 |
| 02/03/2020 | 21:00:00 | 22910.68 | 4310712 | 1.995 | 0.24 | 4301478 | 267 | 170 | 0.030 | 0.075 | 0.165 | 0.158 | 0.048 | 206 |
| 02/03/2020 | 22:00:00 | 22911.68 | 4310976 | 1.987 | 0.24 | 4301742 | 264 | 170 | 0.030 | 0.075 | 0.165 | 0.158 | 0.048 | 206 |
| 02/03/2020 | 23:00:00 | 22912.68 | 4311237 | 2.006 | 0.238 | 4302002 | 260 | 167 | 0.030 | 0.075 | 0.163 | 0.155 | 0.048 | 203 |
| 03/03/2020 | 00:00:00 | 22913.68 | 4311496 | 2.01 | 0.237 | 4302260 | 258 | 166 | 0.030 | 0.075 | 0.162 | 0.154 | 0.048 | 202 |
| 03/03/2020 | 01:00:00 | 22914.68 | 4311752 | 1.999 | 0.234 | 4302515 | 255 | 163 | 0.030 | 0.075 | 0.159 | 0.150 | 0.047 | 197 |
| 03/03/2020 | 02:00:00 | 22915.68 | 4312005 | 2.006 | 0.234 | 4302769 | 254 | 163 | 0.030 | 0.075 | 0.159 | 0.150 | 0.047 | 197 |
| 03/03/2020 | 03:00:00 | 22916.68 | 4312257 | 2.013 | 0.232 | 4303019 | 250 | 160 | 0.030 | 0.075 | 0.157 | 0.147 | 0.047 | 194 |
| 03/03/2020 | 04:00:00 | 22917.68 | 4312506 | 1.994 | 0.232 | 4303268 | 249 | 160 | 0.030 | 0.075 | 0.157 | 0.147 | 0.047 | 194 |
| 03/03/2020 | 05:00:00 | 22918.68 | 4312753 | 1.997 | 0.232 | 4303515 | 247 | 160 | 0.030 | 0.075 | 0.157 | 0.147 | 0.047 | 194 |
| 03/03/2020 | 06:00:00 | 22919.68 | 4312998 | 1.998 | 0.23 | 4303759 | 244 | 158 | 0.030 | 0.075 | 0.155 | 0.144 | 0.047 | 191 |
| 03/03/2020 | 07:00:00 | 22920.68 | 4313241 | 2.002 | 0.23 | 4304002 | 243 | 158 | 0.030 | 0.075 | 0.155 | 0.144 | 0.047 | 191 |
| 03/03/2020 | 08:00:00 | 22921.68 | 4313483 | 2.001 | 0.228 | 4304243 | 241 | 156 | 0.030 | 0.075 | 0.153 | 0.141 | 0.047 | 188 |
| 03/03/2020 | 09:00:00 | 22922.68 | 4313724 | 1.995 | 0.228 | 4304483 | 240 | 156 | 0.030 | 0.075 | 0.153 | 0.141 | 0.047 | 188 |
| 03/03/2020 | 10:00:00 | 22923.68 | 4313964 | 1.998 | 0.226 | 4304723 | 240 | 154 | 0.030 | 0.075 | 0.151 | 0.139 | 0.047 | 185 |
| 03/03/2020 | 11:00:00 | 22924.68 | 4314205 | 2.006 | 0.229 | 4304963 | 240 | 157 | 0.030 | 0.075 | 0.154 | 0.143 | 0.047 | 190 |
| 03/03/2020 | 12:00:00 | 22925.68 | 4314451 | 2.001 | 0.229 | 4305208 | 245 | 157 | 0.030 | 0.075 | 0.154 | 0.143 | 0.047 | 190 |
| 03/03/2020 | 13:00:00 | 22926.45 | 4314608 | 2.261 | 0.232 | 4305365 | 157 | 160 | 0.030 | 0.075 | 0.157 | 0.147 | 0.047 | 194 |
| 03/03/2020 | 14:00:00 | 22927.45 | 4314856 | 2.008 | 0.232 | 4305612 | 247 | 160 | 0.030 | 0.075 | 0.157 | 0.147 | 0.047 | 194 |
| 03/03/2020 | 15:00:00 | 22928.45 | 4315108 | 2.001 | 0.234 | 4305864 | 252 | 163 | 0.030 | 0.075 | 0.159 | 0.150 | 0.047 | 197 |
| 03/03/2020 | 16:00:00 | 22929.45 | 4315363 | 1.998 | 0.237 | 4306118 | 254 | 166 | 0.030 | 0.075 | 0.162 | 0.154 | 0.048 | 202 |
| 03/03/2020 | 17:00:00 | 22930.45 | 4315620 | 2.002 | 0.237 | 4306374 | 256 | 166 | 0.030 | 0.075 | 0.162 | 0.154 | 0.048 | 202 |
| 03/03/2020 | 18:00:00 | 22931.45 | 4315877 | 2.01 | 0.235 | 4306631 | 257 | 164 | 0.030 | 0.075 | 0.160 | 0.151 | 0.048 | 199 |
| 03/03/2020 | 19:00:00 | 22932.45 | 4316130 | 2.003 | 0.233 | 4306884 | 253 | 162 | 0.030 | 0.075 | 0.158 | 0.148 | 0.047 | 196 |
| 03/03/2020 | 20:00:00 | 22933.45 | 4316379 | 2.008 | 0.232 | 4307132 | 248 | 160 | 0.030 | 0.075 | 0.157 | 0.147 | 0.047 | 194 |
| 03/03/2020 | 21:00:00 | 22934.45 | 4316624 | 1.997 | 0.23 | 4307376 | 244 | 158 | 0.030 | 0.075 | 0.155 | 0.144 | 0.047 | 191 |
| 03/03/2020 | 22:00:00 | 22935.45 | 4316865 | 2.002 | 0.225 | 4307617 | 241 | 153 | 0.030 | 0.075 | 0.150 | 0.137 | 0.046 | 184 |
| 03/03/2020 | 23:00:00 | 22936.45 | 4317104 | 2.001 | 0.227 | 4307855 | 238 | 155 | 0.030 | 0.075 | 0.152 | 0.140 | 0.047 | 187 |
| 04/03/2020 | 00:00:00 | 22937.45 | 4317340 | 2.001 | 0.226 | 4308090 | 235 | 154 | 0.030 | 0.075 | 0.151 | 0.139 | 0.047 | 185 |
| 04/03/2020 | 01:00:00 | 22938.45 | 4317574 | 2.002 | 0.224 | 4308324 | 234 | 152 | 0.030 | 0.075 | 0.149 | 0.136 | 0.046 | 182 |
| 04/03/2020 | 02:00:00 | 22939.45 | 4317806 | 2.004 | 0.223 | 4308555 | 231 | 151 | 0.030 | 0.075 | 0.148 | 0.135 | 0.046 | 181 |
| 04/03/2020 | 03:00:00 | 22940.45 | 4318035 | 1.998 | 0.223 | 4308784 | 229 | 151 | 0.030 | 0.075 | 0.148 | 0.135 | 0.046 | 181 |
| 04/03/2020 | 04:00:00 | 22941.45 | 4318263 | 2.002 | 0.222 | 4309011 | 227 | 150 | 0.030 | 0.075 | 0.147 | 0.133 | 0.046 | 179 |
| 04/03/2020 | 05:00:00 | 22942.45 | 4318489 | 1.997 | 0.221 | 4309237 | 226 | 149 | 0.030 | 0.075 | 0.146 | 0.132 | 0.046 | 178 |
| 04/03/2020 | 06:00:00 | 22943.45 | 4318713 | 2.002 | 0.219 | 4309460 | 223 | 146 | 0.030 | 0.075 | 0.144 | 0.129 | 0.046 | 175 |
| 04/03/2020 | 07:00:00 | 22944.45 | 4318935 | 1.998 | 0.218 | 4309681 | 221 | 145 | 0.030 | 0.075 | 0.143 | 0.128 | 0.046 | 174 |
| 04/03/2020 | 08:00:00 | 22945.45 | 4319154 | 2.005 | 0.217 | 4309900 | 219 | 144 | 0.030 | 0.075 | 0.142 | 0.126 | 0.046 | 172 |
| 04/03/2020 | 09:00:00 | 22946.45 | 4319372 | 2.006 | 0.217 | 4310118 | 218 | 144 | 0.030 | 0.075 | 0.142 | 0.126 | 0.046 | 172 |
| 04/03/2020 | 10:00:00 | 22947.45 | 4319589 | 1.999 | 0.215 | 4310334 | 216 | 142 | 0.030 | 0.075 | 0.140 | 0.124 | 0.045 | 169 |
| 04/03/2020 | 11:00:00 | 22948.45 | 4319804 | 1.994 | 0.216 | 4310549 | 215 | 143 | 0.030 | 0.075 | 0.141 | 0.125 | 0.046 | 171 |
| 04/03/2020 | 12:00:00 | 22949.45 | 4320019 | 2.006 | 0.216 | 4310763 | 214 | 143 | 0.030 | 0.075 | 0.141 | 0.125 | 0.046 | 171 |
| 04/03/2020 | 13:00:00 | 22950.45 | 4320233 | 1.997 | 0.213 | 4310976 | 213 | 140 | 0.030 | 0.075 | 0.138 | 0.121 | 0.045 | 166 |
| 04/03/2020 | 14:00:00 | 22951.45 | 4320447 | 2.002 | 0.213 | 4311190 | 214 | 140 | 0.030 | 0.075 | 0.138 | 0.121 | 0.045 | 166 |
| 04/03/2020 | 15:00:00 | 22952.45 | 4320661 | 1.996 | 0.213 | 4311404 | 214 | 140 | 0.030 | 0.075 | 0.138 | 0.121 | 0.045 | 166 |
| 04/03/2020 | 16:00:00 | 22953.45 | 4320875 | 2 | 0.213 | 4311617 | 213 | 140 | 0.030 | 0.075 | 0.138 | 0.121 | 0.045 | 166 |
| 04/03/2020 | 17:00:00 | 22954.45 | 4321088 | 1.995 | 0.215 | 4311830 | 213 | 142 | 0.030 | 0.075 | 0.140 | 0.124 | 0.045 | 169 |
| 04/03/2020 | 18:00:00 | 22955.45 | 4321300 | 2.001 | 0.213 | 4312041 | 211 | 140 | 0.030 | 0.075 | 0.138 | 0.121 | 0.045 | 166 |
| 04/03/2020 | 19:00:00 | 22956.45 | 4321510 | 2.007 | 0.212 | 4312250 | 209 | 139 | 0.030 | 0.075 | 0.137 | 0.120 | 0.045 | 165 |
| 04/03/2020 | 20:00:00 | 22957.45 | 4321718 | 2 | 0.211 | 4312458 | 208 | 138 | 0.030 | 0.075 | 0.136 | 0.118 | 0.045 | 163 |
| 04/03/2020 | 21:00:00 | 22958.45 | 4321924 | 1.998 | 0.21 | 4312663 | 205 | 137 | 0.030 | 0.075 | 0.135 | 0.117 | 0.045 | 162 |
| 04/03/2020 | 22:00:00 | 22959.45 | 4322128 | 1.997 | 0.211 | 4312867 | 204 | 138 | 0.030 | 0.075 | 0.136 | 0.118 | 0.045 | 163 |
| 04/03/2020 | 23:00:00 | 22960.45 | 4322331 | 1.994 | 0.21 | 4313069 | 202 | 137 | 0.030 | 0.075 | 0.135 | 0.117 | 0.045 | 162 |
| 05/03/2020 | 00:00:00 | 22961.45 | 4322532 | 1.998 | 0.208 | 4313269 | 200 | 135 | 0.030 | 0.075 | 0.133 | 0.115 | 0.045 | 159 |
| 05/03/2020 | 01:00:00 | 22962.45 | 4322730 | 2.003 | 0.207 | 4313468 | 199 | 134 | 0.030 | 0.075 | 0.132 | 0.113 | 0.045 | 158 |
| 05/03/2020 | 02:00:00 | 22963.45 | 4322927 | 2.004 | 0.207 | 4313664 | 196 | 134 | 0.030 | 0.075 | 0.132 | 0.113 | 0.045 | 158 |
| 05/03/2020 | 03:00:00 | 22964.46 | 4323123 | 1.994 | 0.206 | 4313859 | 195 | 133 | 0.030 | 0.075 | 0.131 | 0.112 | 0.044 | 156 |
| 05/03/2020 | 04:00:00 | 22965.46 | 4323316 | 2 | 0.206 | 4314052 | 193 | 133 | 0.030 | 0.075 | 0.131 | 0.112 | 0.044 | 156 |
| 05/03/2020 | 05:00:00 | 22966.46 | 4323508 | 1.998 | 0.206 | 4314244 | 192 | 133 | 0.030 | 0.075 | 0.131 | 0.112 | 0.044 | 156 |
| 05/03/2020 | 06:00:00 | 22967.46 | 4323699 | 2.001 | 0.204 | 4314434 | 190 | 132 | 0.030 | 0.075 | 0.129 | 0.109 | 0.044 | 154 |
| 05/03/2020 | 07:00:00 | 22968.46 | 4323888 | 1.995 | 0.203 | 4314623 | 189 | 131 | 0.030 | 0.075 | 0.128 | 0.108 | 0.044 | 152 |
| 05/03/2020 | 08:00:00 | 22969.46 | 4324076 | 2.003 | 0.201 | 4314810 | 187 | 129 | 0.030 | 0.075 | 0.126 | 0.106 | 0.044 | 150 |
| 05/03/2020 | 09:00:00 | 22970.46 | 4324262 | 2 | 0.202 | 4314995 | 185 | 130 | 0.030 | 0.075 | 0.127 | 0.107 | 0.044 | 151 |
| 05/03/2020 | 10:00:00 | 22971.46 | 4324446 | 2 | 0.2 | 4315180 | 185 | 128 | 0.030 | 0.075 | 0.125 | 0.104 | 0.044 | 148 |
| 05/03/2020 | 11:00:00 | 22972.46 | 4324630 | 1.997 | 0.201 | 4315363 | 183 | 129 | 0.030 | 0.075 | 0.126 | 0.106 | 0.044 | 150 |
| 05/03/2020 | 12:00:00 | 22973.46 | 4324814 | 1.997 | 0.199 | 4315546 | 183 | 127 | 0.030 | 0.075 | 0.124 | 0.103 | 0.044 | 147 |
| 05/03/2020 | 13:00:00 | 22973.88 | 4324890 | 2.517 | 0.2 | 4315622 | 76 | 128 | 0.030 | 0.075 | 0.125 | 0.104 | 0.044 | 148 |
| 05/03/2020 | 14:00:00 | 22974.58 | 4325004 | 1.998 | 0.202 | 4315736 | 114 | 130 | 0.030 | 0.075 | 0.127 | 0.107 | 0.044 | 151 |
| 05/03/2020 | 15:00:00 | 22975.58 | 4325190 | 1.996 | 0.2 | 4315921 | 185 | 128 | 0.030 | 0.075 | 0.125 | 0.104 | 0.044 | 148 |
| 05/03/2020 | 16:00:00 | 22976.58 | 4325375 | 2.002 | 0.2 | 4316106 | 185 | 128 | 0.030 | 0.075 | 0.125 | 0.104 | 0.044 | 148 |
| 05/03/2020 | 17:00:00 | 22977.58 | 4325558 | 1.995 | 0.201 | 4316288 | 182 | 129 | 0.030 | 0.075 | 0.126 | 0.106 | 0.044 | 150 |
| 05/03/2020 | 18:00:00 | 22978.58 | 4325740 | 2.006 | 0.199 | 4316470 | 182 | 127 | 0.030 | 0.075 | 0.124 | 0.103 | 0.044 | 147 |
| 05/03/2020 | 19:00:00 | 22979.58 | 4325919 | 2.002 | 0.197 | 4316649 | 179 | 125 | 0.030 | 0.075 | 0.122 | 0.101 | 0.043 | 144 |
| 05/03/2020 | 20:00:00 | 22980.58 | 4326098 | 2.003 | 0.199 | 4316827 | 178 | 127 | 0.030 | 0.075 | 0.124 | 0.103 | 0.044 | 147 |
| 05/03/2020 | 21:00:00 | 22981.58 | 4326274 | 1.997 | 0.197 | 4317003</ | | | | | | | | |

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|------------|----------|----------|---------|-------|-------|---------|-----|------|-------|-------|-------|-------|-------|------|
| 06/03/2020 | 14:00:00 | 22998.59 | 4329078 | 2 | 0.19 | 4319799 | 159 | 119 | 0.030 | 0.075 | 0.115 | 0.092 | 0.043 | 135 |
| 06/03/2020 | 15:00:00 | 22999.59 | 4329237 | 2 | 0.189 | 4319958 | 159 | 118 | 0.030 | 0.075 | 0.114 | 0.091 | 0.043 | 134 |
| 06/03/2020 | 16:00:00 | 23000.59 | 4329397 | 1.998 | 0.191 | 4320117 | 159 | 120 | 0.030 | 0.075 | 0.116 | 0.093 | 0.043 | 136 |
| 06/03/2020 | 17:00:00 | 23001.59 | 4329562 | 2.002 | 0.194 | 4320281 | 164 | 122 | 0.030 | 0.075 | 0.119 | 0.097 | 0.043 | 140 |
| 06/03/2020 | 18:00:00 | 23002.59 | 4329731 | 1.995 | 0.195 | 4320451 | 170 | 123 | 0.030 | 0.075 | 0.120 | 0.098 | 0.043 | 141 |
| 06/03/2020 | 19:00:00 | 23003.59 | 4329900 | 2.003 | 0.192 | 4320619 | 168 | 121 | 0.030 | 0.075 | 0.117 | 0.095 | 0.043 | 137 |
| 06/03/2020 | 20:00:00 | 23004.59 | 4330067 | 1.996 | 0.194 | 4320785 | 166 | 122 | 0.030 | 0.075 | 0.119 | 0.097 | 0.043 | 140 |
| 06/03/2020 | 21:00:00 | 23005.59 | 4330231 | 1.996 | 0.194 | 4320949 | 164 | 122 | 0.030 | 0.075 | 0.119 | 0.097 | 0.043 | 140 |
| 06/03/2020 | 22:00:00 | 23006.59 | 4330394 | 2.003 | 0.191 | 4321112 | 163 | 120 | 0.030 | 0.075 | 0.116 | 0.093 | 0.043 | 136 |
| 06/03/2020 | 23:00:00 | 23007.59 | 4330555 | 1.998 | 0.19 | 4321272 | 160 | 119 | 0.030 | 0.075 | 0.115 | 0.092 | 0.043 | 135 |
| 07/03/2020 | 00:00:00 | 23008.59 | 4330714 | 2.003 | 0.189 | 4321430 | 158 | 118 | 0.030 | 0.075 | 0.114 | 0.091 | 0.043 | 134 |
| 07/03/2020 | 01:00:00 | 23009.59 | 4330871 | 2.004 | 0.19 | 4321587 | 157 | 119 | 0.030 | 0.075 | 0.115 | 0.092 | 0.043 | 135 |
| 07/03/2020 | 02:00:00 | 23010.59 | 4331027 | 2 | 0.189 | 4321743 | 156 | 118 | 0.030 | 0.075 | 0.114 | 0.091 | 0.043 | 134 |
| 07/03/2020 | 03:00:00 | 23011.59 | 4331181 | 1.997 | 0.187 | 4321897 | 154 | 116 | 0.030 | 0.075 | 0.112 | 0.089 | 0.042 | 131 |
| 07/03/2020 | 04:00:00 | 23012.59 | 4331335 | 1.998 | 0.186 | 4322050 | 153 | 116 | 0.030 | 0.075 | 0.111 | 0.087 | 0.042 | 130 |
| 07/03/2020 | 05:00:00 | 23013.59 | 4331487 | 1.998 | 0.186 | 4322202 | 152 | 116 | 0.030 | 0.075 | 0.111 | 0.087 | 0.042 | 130 |
| 07/03/2020 | 06:00:00 | 23014.59 | 4331640 | 2.002 | 0.187 | 4322354 | 152 | 116 | 0.030 | 0.075 | 0.112 | 0.089 | 0.042 | 131 |
| 07/03/2020 | 07:00:00 | 23015.59 | 4331794 | 2.004 | 0.189 | 4322508 | 154 | 118 | 0.030 | 0.075 | 0.114 | 0.091 | 0.043 | 134 |
| 07/03/2020 | 08:00:00 | 23016.59 | 4331955 | 1.995 | 0.192 | 4322669 | 161 | 121 | 0.030 | 0.075 | 0.117 | 0.095 | 0.043 | 137 |
| 07/03/2020 | 09:00:00 | 23017.59 | 4332129 | 2.002 | 0.2 | 4322842 | 173 | 128 | 0.030 | 0.075 | 0.125 | 0.104 | 0.044 | 148 |
| 07/03/2020 | 10:00:00 | 23018.59 | 4332329 | 2.01 | 0.217 | 4323042 | 200 | 144 | 0.030 | 0.075 | 0.142 | 0.126 | 0.046 | 172 |
| 07/03/2020 | 11:00:00 | 23019.59 | 4332577 | 2.016 | 0.247 | 4323288 | 246 | 178 | 0.030 | 0.075 | 0.172 | 0.169 | 0.049 | 217 |
| 07/03/2020 | 12:00:00 | 23020.59 | 4332897 | 2.019 | 0.283 | 4323608 | 320 | 226 | 0.030 | 0.075 | 0.208 | 0.224 | 0.052 | 276 |
| 07/03/2020 | 13:00:00 | 23021.59 | 4333281 | 2.35 | 0.332 | 4323992 | 384 | 306 | 0.030 | 0.075 | 0.257 | 0.308 | 0.056 | 364 |
| 07/03/2020 | 14:00:00 | 23022.59 | 4333672 | 2.572 | 0.431 | 4324382 | 390 | 513 | 0.030 | 0.075 | 0.356 | 0.502 | 0.064 | 566 |
| 07/03/2020 | 15:00:00 | 23023.59 | 4334063 | 2.612 | 0.469 | 4324772 | 390 | 610 | 0.030 | 0.075 | 0.394 | 0.584 | 0.067 | 651 |
| 07/03/2020 | 16:00:00 | 23024.59 | 4334453 | 2.623 | 0.492 | 4325162 | 390 | 673 | 0.030 | 0.075 | 0.417 | 0.636 | 0.069 | 705 |
| 07/03/2020 | 17:00:00 | 23025.59 | 4334845 | 2.626 | 0.492 | 4325552 | 390 | 673 | 0.030 | 0.075 | 0.417 | 0.636 | 0.069 | 705 |
| 07/03/2020 | 18:00:00 | 23026.59 | 4335236 | 2.623 | 0.48 | 4325942 | 390 | 640 | 0.030 | 0.075 | 0.405 | 0.609 | 0.068 | 677 |
| 07/03/2020 | 19:00:00 | 23027.59 | 4335627 | 2.602 | 0.465 | 4326333 | 391 | 599 | 0.030 | 0.075 | 0.390 | 0.575 | 0.067 | 642 |
| 07/03/2020 | 20:00:00 | 23028.59 | 4336017 | 2.642 | 0.501 | 4326723 | 390 | 699 | 0.030 | 0.075 | 0.426 | 0.657 | 0.069 | 726 |
| 07/03/2020 | 21:00:00 | 23029.59 | 4336409 | 2.752 | 0.641 | 4327113 | 390 | 1166 | 0.030 | 0.075 | 0.566 | 1.006 | 0.078 | 1084 |
| 07/03/2020 | 22:00:00 | 23030.59 | 4336800 | 2.834 | 0.723 | 4327504 | 391 | 1498 | 0.030 | 0.075 | 0.648 | 1.232 | 0.083 | 1316 |
| 07/03/2020 | 23:00:00 | 23031.59 | 4337192 | 2.844 | 0.737 | 4327895 | 391 | 1560 | 0.030 | 0.075 | 0.662 | 1.272 | 0.084 | 1357 |
| 08/03/2020 | 00:00:00 | 23032.59 | 4337584 | 2.891 | 0.776 | 4328286 | 391 | 1737 | 0.030 | 0.075 | 0.701 | 1.387 | 0.086 | 1473 |
| 08/03/2020 | 01:00:00 | 23033.59 | 4337975 | 2.902 | 0.778 | 4328677 | 391 | 1746 | 0.030 | 0.075 | 0.703 | 1.392 | 0.086 | 1479 |
| 08/03/2020 | 02:00:00 | 23034.59 | 4338367 | 2.862 | 0.737 | 4329068 | 391 | 1560 | 0.030 | 0.075 | 0.662 | 1.272 | 0.084 | 1357 |
| 08/03/2020 | 03:00:00 | 23035.59 | 4338759 | 2.865 | 0.73 | 4329459 | 391 | 1529 | 0.030 | 0.075 | 0.655 | 1.252 | 0.084 | 1336 |
| 08/03/2020 | 04:00:00 | 23036.59 | 4339150 | 2.866 | 0.695 | 4329850 | 391 | 1380 | 0.030 | 0.075 | 0.620 | 1.153 | 0.082 | 1235 |
| 08/03/2020 | 05:00:00 | 23037.53 | 4339519 | 2.928 | 0.639 | 4330218 | 368 | 1158 | 0.030 | 0.075 | 0.564 | 1.001 | 0.078 | 1079 |
| 08/03/2020 | 06:00:00 | 23037.53 | 4339519 | 2.885 | 0.594 | 4330218 | 0 | 995 | 0.030 | 0.075 | 0.519 | 0.883 | 0.076 | 959 |
| 08/03/2020 | 07:00:00 | 23037.53 | 4339519 | 2.849 | 0.547 | 4330218 | 0 | 838 | 0.030 | 0.075 | 0.472 | 0.766 | 0.072 | 839 |
| 08/03/2020 | 08:00:00 | 23037.53 | 4339519 | 2.825 | 0.498 | 4330218 | 0 | 690 | 0.030 | 0.075 | 0.423 | 0.650 | 0.069 | 719 |
| 08/03/2020 | 09:00:00 | 23037.8 | 4339568 | 2.726 | 0.496 | 4330267 | 49 | 685 | 0.030 | 0.075 | 0.421 | 0.645 | 0.069 | 714 |
| 08/03/2020 | 10:00:00 | 23038.8 | 4339958 | 2.684 | 0.506 | 4330656 | 389 | 713 | 0.030 | 0.075 | 0.431 | 0.668 | 0.070 | 738 |
| 08/03/2020 | 11:00:00 | 23039.8 | 4340349 | 2.655 | 0.478 | 4331046 | 390 | 634 | 0.030 | 0.075 | 0.403 | 0.604 | 0.068 | 672 |
| 08/03/2020 | 12:00:00 | 23040.8 | 4340740 | 2.634 | 0.453 | 4331437 | 391 | 568 | 0.030 | 0.075 | 0.378 | 0.549 | 0.066 | 615 |
| 08/03/2020 | 13:00:00 | 23041.8 | 4341131 | 2.602 | 0.429 | 4331827 | 390 | 509 | 0.030 | 0.075 | 0.354 | 0.498 | 0.064 | 562 |
| 08/03/2020 | 14:00:00 | 23042.8 | 4341522 | 2.577 | 0.408 | 4332217 | 390 | 459 | 0.030 | 0.075 | 0.333 | 0.454 | 0.063 | 517 |
| 08/03/2020 | 15:00:00 | 23043.8 | 4341913 | 2.507 | 0.392 | 4332607 | 390 | 424 | 0.030 | 0.075 | 0.317 | 0.422 | 0.061 | 483 |
| 08/03/2020 | 16:00:00 | 23044.8 | 4342303 | 2.455 | 0.379 | 4332997 | 390 | 396 | 0.030 | 0.075 | 0.304 | 0.396 | 0.060 | 456 |
| 08/03/2020 | 17:00:00 | 23045.8 | 4342694 | 2.41 | 0.369 | 4333387 | 390 | 376 | 0.030 | 0.075 | 0.294 | 0.377 | 0.060 | 436 |
| 08/03/2020 | 18:00:00 | 23046.8 | 4343084 | 2.39 | 0.36 | 4333776 | 389 | 358 | 0.030 | 0.075 | 0.285 | 0.359 | 0.059 | 418 |
| 08/03/2020 | 19:00:00 | 23047.8 | 4343474 | 2.376 | 0.348 | 4334166 | 390 | 335 | 0.030 | 0.075 | 0.273 | 0.337 | 0.058 | 395 |
| 08/03/2020 | 20:00:00 | 23048.8 | 4343864 | 2.359 | 0.34 | 4334555 | 389 | 320 | 0.030 | 0.075 | 0.265 | 0.322 | 0.057 | 379 |
| 08/03/2020 | 21:00:00 | 23049.8 | 4344254 | 2.372 | 0.343 | 4334944 | 389 | 325 | 0.030 | 0.075 | 0.268 | 0.328 | 0.057 | 385 |
| 08/03/2020 | 22:00:00 | 23050.8 | 4344644 | 2.354 | 0.334 | 4335333 | 389 | 309 | 0.030 | 0.075 | 0.259 | 0.311 | 0.057 | 368 |
| 08/03/2020 | 23:00:00 | 23051.8 | 4345034 | 2.341 | 0.329 | 4335723 | 390 | 300 | 0.030 | 0.075 | 0.254 | 0.302 | 0.056 | 359 |
| 09/03/2020 | 00:00:00 | 23052.8 | 4345424 | 2.348 | 0.329 | 4336112 | 389 | 300 | 0.030 | 0.075 | 0.254 | 0.302 | 0.056 | 359 |
| 09/03/2020 | 01:00:00 | 23053.8 | 4345814 | 2.355 | 0.337 | 4336501 | 389 | 315 | 0.030 | 0.075 | 0.262 | 0.317 | 0.057 | 374 |
| 09/03/2020 | 02:00:00 | 23054.8 | 4346204 | 2.35 | 0.333 | 4336890 | 389 | 307 | 0.030 | 0.075 | 0.258 | 0.310 | 0.057 | 366 |
| 09/03/2020 | 03:00:00 | 23055.8 | 4346594 | 2.352 | 0.332 | 4337280 | 390 | 306 | 0.030 | 0.075 | 0.257 | 0.308 | 0.056 | 364 |
| 09/03/2020 | 04:00:00 | 23056.8 | 4346984 | 2.336 | 0.324 | 4337669 | 389 | 292 | 0.030 | 0.075 | 0.249 | 0.294 | 0.056 | 349 |
| 09/03/2020 | 05:00:00 | 23057.8 | 4347374 | 2.329 | 0.32 | 4338058 | 389 | 285 | 0.030 | 0.075 | 0.245 | 0.286 | 0.055 | 342 |
| 09/03/2020 | 06:00:00 | 23058.8 | 4347764 | 2.32 | 0.321 | 4338447 | 389 | 286 | 0.030 | 0.075 | 0.246 | 0.288 | 0.056 | 344 |
| 09/03/2020 | 07:00:00 | 23059.8 | 4348154 | 2.318 | 0.317 | 4338837 | 390 | 280 | 0.030 | 0.075 | 0.242 | 0.281 | 0.055 | 336 |
| 09/03/2020 | 08:00:00 | 23060.8 | 4348544 | 2.319 | 0.321 | 4339226 | 389 | 286 | 0.030 | 0.075 | 0.246 | 0.288 | 0.056 | 344 |
| 09/03/2020 | 09:00:00 | 23061.8 | 4348934 | 2.328 | 0.321 | 4339615 | 389 | 286 | 0.030 | 0.075 | 0.246 | 0.288 | 0.056 | 344 |
| 09/03/2020 | 10:00:00 | 23062.8 | 4349324 | 2.321 | 0.319 | 4340004 | 389 | 283 | 0.030 | 0.075 | 0.244 | 0.285 | 0.055 | 340 |
| 09/03/2020 | 11:00:00 | 23063.8 | 4349714 | 2.3 | 0.314 | 4340393 | 389 | 275 | 0.030 | 0.075 | 0.239 | 0.276 | 0.055 | 331 |
| 09/03/2020 | 12:00:00 | 23064.8 | 4350104 | 2.287 | 0.311 | 4340783 | 390 | 270 | 0.030 | 0.075 | 0.236 | 0.271 | 0.055 | 325 |
| 09/03/2020 | 13:00:00 | 23065.8 | 4350494 | 2.268 | 0.309 | 4341172 | 389 | 266 | 0.030 | 0.075 | 0.234 | 0.267 | 0.054 | 322 |
| 09/03/2020 | 14:00:00 | 23066.8 | 4350884 | 2.251 | 0.303 | 4341561 | 389 | 257 | 0.030 | 0.075 | 0.228 | 0.257 | 0.054 | 311 |
| 09/03/2020 | 15:00:00 | 23067.8 | 4351274 | 2.259 | 0.304 | 4341950 | 389 | 258 | 0.030 | 0.075 | 0.229 | 0.259 | 0.054 | 313 |
| 09/03/2020 | 16:00:00 | 23068.8 | 4351664 | 2.303 | 0.314 | 4342340 | 390 | 275 | 0.030 | 0.075 | 0.239 | 0.276 | 0.055 | 331 |
| 09/03/2020 | 17:00:00 | 23069.37 | 4351887 | 2.617 | 0.322 | 4342562 | 222 | 288 | | | | | | |

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|------------|----------|----------|---------|-------|-------|---------|-----|-----|-------|-------|-------|-------|-------|-----|
| 10/03/2020 | 10:00:00 | 23079.86 | 4355930 | 2.709 | 0.581 | 4346597 | 391 | 950 | 0.030 | 0.075 | 0.506 | 0.850 | 0.075 | 925 |
| 10/03/2020 | 11:00:00 | 23080.86 | 4356321 | 2.722 | 0.587 | 4346988 | 391 | 970 | 0.030 | 0.075 | 0.512 | 0.865 | 0.075 | 941 |
| 10/03/2020 | 12:00:00 | 23081.86 | 4356712 | 2.688 | 0.534 | 4347378 | 390 | 797 | 0.030 | 0.075 | 0.459 | 0.735 | 0.072 | 806 |
| 10/03/2020 | 13:00:00 | 23082.86 | 4357104 | 2.665 | 0.487 | 4347769 | 391 | 659 | 0.030 | 0.075 | 0.412 | 0.625 | 0.068 | 693 |
| 10/03/2020 | 14:00:00 | 23083.86 | 4357495 | 2.611 | 0.449 | 4348159 | 390 | 558 | 0.030 | 0.075 | 0.374 | 0.540 | 0.066 | 606 |
| 10/03/2020 | 15:00:00 | 23084.86 | 4357886 | 2.595 | 0.436 | 4348550 | 391 | 526 | 0.030 | 0.075 | 0.361 | 0.512 | 0.065 | 577 |
| 10/03/2020 | 16:00:00 | 23085.86 | 4358277 | 2.547 | 0.414 | 4348940 | 390 | 473 | 0.030 | 0.075 | 0.339 | 0.466 | 0.063 | 529 |
| 10/03/2020 | 17:00:00 | 23086.86 | 4358669 | 2.494 | 0.398 | 4349331 | 391 | 437 | 0.030 | 0.075 | 0.323 | 0.434 | 0.062 | 495 |
| 10/03/2020 | 18:00:00 | 23087.86 | 4359060 | 2.447 | 0.381 | 4349721 | 390 | 400 | 0.030 | 0.075 | 0.306 | 0.400 | 0.060 | 460 |
| 10/03/2020 | 19:00:00 | 23088.86 | 4359450 | 2.411 | 0.372 | 4350111 | 390 | 382 | 0.030 | 0.075 | 0.297 | 0.382 | 0.060 | 442 |
| 10/03/2020 | 20:00:00 | 23089.86 | 4359841 | 2.394 | 0.359 | 4350501 | 390 | 356 | 0.030 | 0.075 | 0.284 | 0.358 | 0.059 | 416 |
| 10/03/2020 | 21:00:00 | 23090.86 | 4360232 | 2.375 | 0.354 | 4350891 | 390 | 346 | 0.030 | 0.075 | 0.279 | 0.348 | 0.058 | 406 |
| 10/03/2020 | 22:00:00 | 23091.86 | 4360623 | 2.373 | 0.344 | 4351281 | 390 | 327 | 0.030 | 0.075 | 0.269 | 0.330 | 0.057 | 387 |
| 10/03/2020 | 23:00:00 | 23092.86 | 4361013 | 2.36 | 0.341 | 4351671 | 390 | 322 | 0.030 | 0.075 | 0.266 | 0.324 | 0.057 | 381 |
| 11/03/2020 | 00:00:00 | 23093.86 | 4361404 | 2.355 | 0.334 | 4352061 | 390 | 309 | 0.030 | 0.075 | 0.259 | 0.311 | 0.057 | 368 |
| 11/03/2020 | 01:00:00 | 23094.86 | 4361795 | 2.343 | 0.331 | 4352451 | 390 | 304 | 0.030 | 0.075 | 0.256 | 0.306 | 0.056 | 362 |
| 11/03/2020 | 02:00:00 | 23095.86 | 4362186 | 2.344 | 0.33 | 4352841 | 390 | 302 | 0.030 | 0.075 | 0.255 | 0.304 | 0.056 | 360 |
| 11/03/2020 | 03:00:00 | 23096.86 | 4362576 | 2.332 | 0.325 | 4353231 | 390 | 293 | 0.030 | 0.075 | 0.250 | 0.295 | 0.056 | 351 |
| 11/03/2020 | 04:00:00 | 23097.86 | 4362967 | 2.326 | 0.321 | 4353621 | 390 | 286 | 0.030 | 0.075 | 0.246 | 0.288 | 0.056 | 344 |
| 11/03/2020 | 05:00:00 | 23098.86 | 4363358 | 2.315 | 0.32 | 4354011 | 390 | 285 | 0.030 | 0.075 | 0.245 | 0.286 | 0.055 | 342 |
| 11/03/2020 | 06:00:00 | 23099.86 | 4363748 | 2.324 | 0.321 | 4354401 | 390 | 286 | 0.030 | 0.075 | 0.246 | 0.288 | 0.056 | 344 |
| 11/03/2020 | 07:00:00 | 23100.86 | 4364139 | 2.303 | 0.315 | 4354790 | 389 | 276 | 0.030 | 0.075 | 0.240 | 0.278 | 0.055 | 333 |
| 11/03/2020 | 08:00:00 | 23101.09 | 4364228 | 2.606 | 0.316 | 4354879 | 89 | 278 | 0.030 | 0.075 | 0.241 | 0.279 | 0.055 | 335 |
| 11/03/2020 | 09:00:00 | 23101.72 | 4364401 | 2.294 | 0.311 | 4355051 | 172 | 270 | 0.030 | 0.075 | 0.236 | 0.271 | 0.055 | 325 |
| 11/03/2020 | 10:00:00 | 23102.72 | 4364791 | 2.322 | 0.319 | 4355441 | 390 | 283 | 0.030 | 0.075 | 0.244 | 0.285 | 0.055 | 340 |
| 11/03/2020 | 11:00:00 | 23103.72 | 4365181 | 2.346 | 0.328 | 4355830 | 389 | 298 | 0.030 | 0.075 | 0.253 | 0.301 | 0.056 | 357 |
| 11/03/2020 | 12:00:00 | 23104.72 | 4365571 | 2.331 | 0.326 | 4356220 | 390 | 295 | 0.030 | 0.075 | 0.251 | 0.297 | 0.056 | 353 |
| 11/03/2020 | 13:00:00 | 23105.72 | 4365961 | 2.324 | 0.319 | 4356609 | 389 | 283 | 0.030 | 0.075 | 0.244 | 0.285 | 0.055 | 340 |
| 11/03/2020 | 14:00:00 | 23106.72 | 4366351 | 2.305 | 0.316 | 4356998 | 389 | 278 | 0.030 | 0.075 | 0.241 | 0.279 | 0.055 | 335 |
| 11/03/2020 | 15:00:00 | 23107.72 | 4366741 | 2.31 | 0.319 | 4357387 | 389 | 283 | 0.030 | 0.075 | 0.244 | 0.285 | 0.055 | 340 |
| 11/03/2020 | 16:00:00 | 23108.72 | 4367131 | 2.316 | 0.316 | 4357776 | 389 | 278 | 0.030 | 0.075 | 0.241 | 0.279 | 0.055 | 335 |
| 11/03/2020 | 17:00:00 | 23109.72 | 4367521 | 2.336 | 0.326 | 4358166 | 390 | 295 | 0.030 | 0.075 | 0.251 | 0.297 | 0.056 | 353 |
| 11/03/2020 | 18:00:00 | 23110.72 | 4367911 | 2.545 | 0.422 | 4358555 | 389 | 492 | 0.030 | 0.075 | 0.347 | 0.483 | 0.064 | 547 |
| 11/03/2020 | 19:00:00 | 23111.72 | 4368302 | 2.623 | 0.45 | 4358945 | 390 | 561 | 0.030 | 0.075 | 0.375 | 0.542 | 0.066 | 608 |
| 11/03/2020 | 20:00:00 | 23112.72 | 4368693 | 2.626 | 0.504 | 4359335 | 390 | 708 | 0.030 | 0.075 | 0.429 | 0.664 | 0.070 | 733 |
| 11/03/2020 | 21:00:00 | 23113.72 | 4369084 | 2.634 | 0.495 | 4359725 | 390 | 682 | 0.030 | 0.075 | 0.420 | 0.643 | 0.069 | 712 |
| 11/03/2020 | 22:00:00 | 23114.72 | 4369474 | 2.608 | 0.469 | 4360115 | 390 | 610 | 0.030 | 0.075 | 0.394 | 0.584 | 0.067 | 651 |
| 11/03/2020 | 23:00:00 | 23115.72 | 4369865 | 2.607 | 0.438 | 4360505 | 390 | 530 | 0.030 | 0.075 | 0.363 | 0.517 | 0.065 | 582 |
| 12/03/2020 | 00:00:00 | 23116.72 | 4370256 | 2.508 | 0.405 | 4360895 | 390 | 453 | 0.030 | 0.075 | 0.330 | 0.448 | 0.062 | 510 |
| 12/03/2020 | 01:00:00 | 23117.72 | 4370647 | 2.425 | 0.38 | 4361285 | 390 | 398 | 0.030 | 0.075 | 0.305 | 0.398 | 0.060 | 458 |
| 12/03/2020 | 02:00:00 | 23118.72 | 4371037 | 2.397 | 0.362 | 4361674 | 389 | 362 | 0.030 | 0.075 | 0.287 | 0.363 | 0.059 | 422 |
| 12/03/2020 | 03:00:00 | 23119.72 | 4371427 | 2.384 | 0.352 | 4362064 | 390 | 342 | 0.030 | 0.075 | 0.277 | 0.344 | 0.058 | 403 |
| 12/03/2020 | 04:00:00 | 23120.72 | 4371817 | 2.37 | 0.343 | 4362454 | 390 | 325 | 0.030 | 0.075 | 0.268 | 0.328 | 0.057 | 385 |
| 12/03/2020 | 05:00:00 | 23121.72 | 4372208 | 2.361 | 0.336 | 4362843 | 389 | 313 | 0.030 | 0.075 | 0.261 | 0.315 | 0.057 | 372 |
| 12/03/2020 | 06:00:00 | 23122.72 | 4372598 | 2.35 | 0.332 | 4363232 | 389 | 306 | 0.030 | 0.075 | 0.257 | 0.308 | 0.056 | 364 |
| 12/03/2020 | 07:00:00 | 23123.72 | 4372988 | 2.343 | 0.329 | 4363622 | 390 | 300 | 0.030 | 0.075 | 0.254 | 0.302 | 0.056 | 359 |
| 12/03/2020 | 08:00:00 | 23124.72 | 4373378 | 2.336 | 0.323 | 4364011 | 389 | 290 | 0.030 | 0.075 | 0.248 | 0.292 | 0.056 | 347 |
| 12/03/2020 | 09:00:00 | 23125.72 | 4373768 | 2.323 | 0.321 | 4364400 | 389 | 286 | 0.030 | 0.075 | 0.246 | 0.288 | 0.056 | 344 |
| 12/03/2020 | 10:00:00 | 23126.72 | 4374158 | 2.319 | 0.321 | 4364790 | 390 | 286 | 0.030 | 0.075 | 0.246 | 0.288 | 0.056 | 344 |
| 12/03/2020 | 11:00:00 | 23127.73 | 4374548 | 2.322 | 0.321 | 4365179 | 389 | 286 | 0.030 | 0.075 | 0.246 | 0.288 | 0.056 | 344 |
| 12/03/2020 | 12:00:00 | 23128.72 | 4374938 | 2.317 | 0.316 | 4365568 | 389 | 278 | 0.030 | 0.075 | 0.241 | 0.279 | 0.055 | 335 |
| 12/03/2020 | 13:00:00 | 23129.73 | 4375328 | 2.319 | 0.318 | 4365958 | 390 | 281 | 0.030 | 0.075 | 0.243 | 0.283 | 0.055 | 338 |
| 12/03/2020 | 14:00:00 | 23130.73 | 4375718 | 2.344 | 0.322 | 4366347 | 389 | 288 | 0.030 | 0.075 | 0.247 | 0.290 | 0.056 | 346 |
| 12/03/2020 | 15:00:00 | 23131.73 | 4376109 | 2.389 | 0.352 | 4366737 | 390 | 342 | 0.030 | 0.075 | 0.277 | 0.344 | 0.058 | 403 |
| 12/03/2020 | 16:00:00 | 23132.69 | 4376485 | 2.719 | 0.4 | 4367112 | 375 | 441 | 0.030 | 0.075 | 0.325 | 0.438 | 0.062 | 500 |
| 12/03/2020 | 17:00:00 | 23133.3 | 4376655 | 2.511 | 0.406 | 4367282 | 170 | 455 | 0.030 | 0.075 | 0.331 | 0.450 | 0.062 | 512 |
| 12/03/2020 | 18:00:00 | 23134.3 | 4377046 | 2.482 | 0.398 | 4367672 | 390 | 437 | 0.030 | 0.075 | 0.323 | 0.434 | 0.062 | 495 |
| 12/03/2020 | 19:00:00 | 23135.3 | 4377436 | 2.43 | 0.375 | 4368062 | 390 | 388 | 0.030 | 0.075 | 0.300 | 0.388 | 0.060 | 448 |
| 12/03/2020 | 20:00:00 | 23136.3 | 4377827 | 2.395 | 0.359 | 4368452 | 390 | 356 | 0.030 | 0.075 | 0.284 | 0.358 | 0.059 | 416 |
| 12/03/2020 | 21:00:00 | 23137.3 | 4378218 | 2.377 | 0.345 | 4368842 | 390 | 329 | 0.030 | 0.075 | 0.270 | 0.331 | 0.058 | 389 |
| 12/03/2020 | 22:00:00 | 23138.3 | 4378608 | 2.362 | 0.335 | 4369232 | 390 | 311 | 0.030 | 0.075 | 0.260 | 0.313 | 0.057 | 370 |
| 12/03/2020 | 23:00:00 | 23139.3 | 4378999 | 2.355 | 0.332 | 4369622 | 390 | 306 | 0.030 | 0.075 | 0.257 | 0.308 | 0.056 | 364 |
| 13/03/2020 | 00:00:00 | 23140.3 | 4379389 | 2.355 | 0.332 | 4370012 | 390 | 306 | 0.030 | 0.075 | 0.257 | 0.308 | 0.056 | 364 |
| 13/03/2020 | 01:00:00 | 23141.3 | 4379780 | 2.349 | 0.33 | 4370401 | 389 | 302 | 0.030 | 0.075 | 0.255 | 0.304 | 0.056 | 360 |
| 13/03/2020 | 02:00:00 | 23142.3 | 4380170 | 2.389 | 0.356 | 4370791 | 390 | 350 | 0.030 | 0.075 | 0.281 | 0.352 | 0.058 | 410 |
| 13/03/2020 | 03:00:00 | 23143.3 | 4380561 | 2.403 | 0.365 | 4371181 | 390 | 368 | 0.030 | 0.075 | 0.290 | 0.369 | 0.059 | 428 |
| 13/03/2020 | 04:00:00 | 23144.3 | 4380951 | 2.391 | 0.357 | 4371571 | 390 | 352 | 0.030 | 0.075 | 0.282 | 0.354 | 0.059 | 412 |
| 13/03/2020 | 05:00:00 | 23145.3 | 4381342 | 2.376 | 0.346 | 4371961 | 390 | 331 | 0.030 | 0.075 | 0.271 | 0.333 | 0.058 | 391 |
| 13/03/2020 | 06:00:00 | 23146.3 | 4381732 | 2.364 | 0.337 | 4372350 | 389 | 315 | 0.030 | 0.075 | 0.262 | 0.317 | 0.057 | 374 |
| 13/03/2020 | 07:00:00 | 23147.3 | 4382123 | 2.346 | 0.327 | 4372740 | 390 | 297 | 0.030 | 0.075 | 0.252 | 0.299 | 0.056 | 355 |
| 13/03/2020 | 08:00:00 | 23148.3 | 4382513 | 2.333 | 0.322 | 4373129 | 389 | 288 | 0.030 | 0.075 | 0.247 | 0.290 | 0.056 | 346 |
| 13/03/2020 | 09:00:00 | 23149.3 | 4382903 | 2.316 | 0.317 | 4373519 | 390 | 280 | 0.030 | 0.075 | 0.242 | 0.281 | 0.055 | 336 |
| 13/03/2020 | 10:00:00 | 23150.3 | 4383293 | 2.299 | 0.312 | 4373908 | 389 | 271 | 0.030 | 0.075 | 0.237 | 0.273 | 0.055 | 327 |
| 13/03/2020 | 11:00:00 | 23151.3 | 4383684 | 2.283 | 0.311 | 4374298 | 390 | 270 | 0.030 | 0.075 | 0.236 | 0.271 | 0.055 | 325 |
| 13/03/2020 | 12:00:00 | 23152.3 | 4384074 | 2.263 | 0.306 | 4374687 | 389 | 262 | 0.030 | 0.075 | 0.231 | 0.262 | 0.054 | 316 |
| 13/03/2020 | 13:00:00 | 23153.18 | 4384413 | 2.592 | 0.306 | 4375026 | 339 | 262 | 0.030 | 0.075 | 0.231 | 0.262 | 0.054 | 316 |

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|------------|----------|----------|---------|-------|-------|---------|-----|------|-------|-------|-------|-------|-------|-----|
| 14/03/2020 | 06:00:00 | 23170.11 | 4390672 | 2.012 | 0.279 | 4381271 | 345 | 221 | 0.030 | 0.075 | 0.204 | 0.218 | 0.052 | 269 |
| 14/03/2020 | 07:00:00 | 23171.11 | 4391018 | 1.991 | 0.282 | 4381617 | 346 | 225 | 0.030 | 0.075 | 0.207 | 0.222 | 0.052 | 275 |
| 14/03/2020 | 08:00:00 | 23172.11 | 4391366 | 2.02 | 0.283 | 4381964 | 347 | 226 | 0.030 | 0.075 | 0.208 | 0.224 | 0.052 | 276 |
| 14/03/2020 | 09:00:00 | 23173.11 | 4391730 | 1.979 | 0.288 | 4382328 | 364 | 234 | 0.030 | 0.075 | 0.213 | 0.232 | 0.053 | 285 |
| 14/03/2020 | 10:00:00 | 23174.11 | 4392094 | 1.991 | 0.287 | 4382691 | 363 | 232 | 0.030 | 0.075 | 0.212 | 0.231 | 0.053 | 283 |
| 14/03/2020 | 11:00:00 | 23175.11 | 4392461 | 2.01 | 0.292 | 4383057 | 366 | 240 | 0.030 | 0.075 | 0.217 | 0.239 | 0.053 | 292 |
| 14/03/2020 | 12:00:00 | 23176.11 | 4392833 | 1.993 | 0.293 | 4383428 | 371 | 241 | 0.030 | 0.075 | 0.218 | 0.240 | 0.053 | 294 |
| 14/03/2020 | 13:00:00 | 23177.11 | 4393217 | 2.214 | 0.302 | 4383811 | 383 | 255 | 0.030 | 0.075 | 0.227 | 0.255 | 0.054 | 309 |
| 14/03/2020 | 14:00:00 | 23178.11 | 4393607 | 2.272 | 0.304 | 4384201 | 390 | 258 | 0.030 | 0.075 | 0.229 | 0.259 | 0.054 | 313 |
| 14/03/2020 | 15:00:00 | 23179.11 | 4393998 | 2.291 | 0.311 | 4384591 | 390 | 270 | 0.030 | 0.075 | 0.236 | 0.271 | 0.055 | 325 |
| 14/03/2020 | 16:00:00 | 23180.11 | 4394388 | 2.321 | 0.319 | 4384980 | 389 | 283 | 0.030 | 0.075 | 0.244 | 0.285 | 0.055 | 340 |
| 14/03/2020 | 17:00:00 | 23181.11 | 4394779 | 2.377 | 0.35 | 4385370 | 390 | 339 | 0.030 | 0.075 | 0.275 | 0.341 | 0.058 | 399 |
| 14/03/2020 | 18:00:00 | 23182.11 | 4395169 | 2.471 | 0.391 | 4385759 | 389 | 422 | 0.030 | 0.075 | 0.316 | 0.420 | 0.061 | 481 |
| 14/03/2020 | 19:00:00 | 23183.11 | 4395560 | 2.528 | 0.412 | 4386149 | 390 | 469 | 0.030 | 0.075 | 0.337 | 0.462 | 0.063 | 525 |
| 14/03/2020 | 20:00:00 | 23184.11 | 4395951 | 2.486 | 0.398 | 4386540 | 391 | 437 | 0.030 | 0.075 | 0.323 | 0.434 | 0.062 | 495 |
| 14/03/2020 | 21:00:00 | 23185.11 | 4396342 | 2.613 | 0.457 | 4386930 | 390 | 579 | 0.030 | 0.075 | 0.382 | 0.558 | 0.066 | 624 |
| 14/03/2020 | 22:00:00 | 23185.73 | 4396523 | 2.695 | 0.538 | 4387111 | 181 | 810 | 0.030 | 0.075 | 0.463 | 0.744 | 0.072 | 816 |
| 14/03/2020 | 23:00:00 | 23186.73 | 4396914 | 2.697 | 0.575 | 4387501 | 390 | 930 | 0.030 | 0.075 | 0.500 | 0.835 | 0.074 | 910 |
| 15/03/2020 | 00:00:00 | 23187.73 | 4397306 | 2.796 | 0.609 | 4387892 | 391 | 1048 | 0.030 | 0.075 | 0.534 | 0.922 | 0.076 | 998 |
| 15/03/2020 | 01:00:00 | 23188.73 | 4397697 | 2.746 | 0.597 | 4388283 | 391 | 1005 | 0.030 | 0.075 | 0.522 | 0.891 | 0.076 | 967 |
| 15/03/2020 | 02:00:00 | 23189.73 | 4398089 | 2.714 | 0.541 | 4388674 | 391 | 819 | 0.030 | 0.075 | 0.466 | 0.751 | 0.072 | 824 |
| 15/03/2020 | 03:00:00 | 23190.73 | 4398481 | 2.657 | 0.48 | 4389064 | 390 | 640 | 0.030 | 0.075 | 0.405 | 0.609 | 0.068 | 677 |
| 15/03/2020 | 04:00:00 | 23191.73 | 4398872 | 2.591 | 0.438 | 4389455 | 391 | 530 | 0.030 | 0.075 | 0.363 | 0.517 | 0.065 | 582 |
| 15/03/2020 | 05:00:00 | 23192.73 | 4399264 | 2.508 | 0.402 | 4389846 | 391 | 446 | 0.030 | 0.075 | 0.327 | 0.442 | 0.062 | 504 |
| 15/03/2020 | 06:00:00 | 23193.73 | 4399655 | 2.453 | 0.382 | 4390236 | 390 | 403 | 0.030 | 0.075 | 0.307 | 0.402 | 0.061 | 462 |
| 15/03/2020 | 07:00:00 | 23194.73 | 4400046 | 2.41 | 0.364 | 4390627 | 391 | 366 | 0.030 | 0.075 | 0.289 | 0.367 | 0.059 | 426 |
| 15/03/2020 | 08:00:00 | 23195.73 | 4400437 | 2.391 | 0.356 | 4391017 | 390 | 350 | 0.030 | 0.075 | 0.281 | 0.352 | 0.058 | 410 |
| 15/03/2020 | 09:00:00 | 23196.73 | 4400828 | 2.38 | 0.35 | 4391407 | 390 | 339 | 0.030 | 0.075 | 0.275 | 0.341 | 0.058 | 399 |
| 15/03/2020 | 10:00:00 | 23197.73 | 4401219 | 2.387 | 0.354 | 4391798 | 391 | 346 | 0.030 | 0.075 | 0.279 | 0.348 | 0.058 | 406 |
| 15/03/2020 | 11:00:00 | 23198.73 | 4401610 | 2.382 | 0.35 | 4392188 | 390 | 339 | 0.030 | 0.075 | 0.275 | 0.341 | 0.058 | 399 |
| 15/03/2020 | 12:00:00 | 23199.73 | 4402001 | 2.373 | 0.343 | 4392578 | 390 | 325 | 0.030 | 0.075 | 0.268 | 0.328 | 0.057 | 385 |
| 15/03/2020 | 13:00:00 | 23200.73 | 4402392 | 2.359 | 0.338 | 4392968 | 390 | 316 | 0.030 | 0.075 | 0.263 | 0.319 | 0.057 | 376 |
| 15/03/2020 | 14:00:00 | 23201.73 | 4402783 | 2.354 | 0.332 | 4393358 | 390 | 306 | 0.030 | 0.075 | 0.257 | 0.308 | 0.056 | 364 |
| 15/03/2020 | 15:00:00 | 23202.73 | 4403173 | 2.35 | 0.325 | 4393748 | 390 | 293 | 0.030 | 0.075 | 0.250 | 0.295 | 0.056 | 351 |
| 15/03/2020 | 16:00:00 | 23203.73 | 4403564 | 2.333 | 0.325 | 4394138 | 390 | 293 | 0.030 | 0.075 | 0.250 | 0.295 | 0.056 | 351 |
| 15/03/2020 | 17:00:00 | 23204.73 | 4403955 | 2.322 | 0.317 | 4394528 | 390 | 280 | 0.030 | 0.075 | 0.242 | 0.281 | 0.055 | 336 |
| 15/03/2020 | 18:00:00 | 23205.73 | 4404346 | 2.312 | 0.319 | 4394918 | 390 | 283 | 0.030 | 0.075 | 0.244 | 0.285 | 0.055 | 340 |
| 15/03/2020 | 19:00:00 | 23206.73 | 4404736 | 2.3 | 0.315 | 4395308 | 390 | 276 | 0.030 | 0.075 | 0.240 | 0.278 | 0.055 | 333 |
| 15/03/2020 | 20:00:00 | 23207.73 | 4405127 | 2.298 | 0.314 | 4395698 | 390 | 275 | 0.030 | 0.075 | 0.239 | 0.276 | 0.055 | 331 |
| 15/03/2020 | 21:00:00 | 23208.73 | 4405518 | 2.311 | 0.315 | 4396088 | 390 | 276 | 0.030 | 0.075 | 0.240 | 0.278 | 0.055 | 333 |
| 15/03/2020 | 22:00:00 | 23209.73 | 4405908 | 2.294 | 0.312 | 4396478 | 390 | 271 | 0.030 | 0.075 | 0.237 | 0.273 | 0.055 | 327 |
| 15/03/2020 | 23:00:00 | 23210.73 | 4406299 | 2.288 | 0.31 | 4396868 | 390 | 268 | 0.030 | 0.075 | 0.235 | 0.269 | 0.055 | 324 |
| 16/03/2020 | 00:00:00 | 23211.73 | 4406690 | 2.269 | 0.308 | 4397257 | 389 | 265 | 0.030 | 0.075 | 0.233 | 0.266 | 0.054 | 320 |
| 16/03/2020 | 01:00:00 | 23212.73 | 4407080 | 2.236 | 0.301 | 4397647 | 390 | 254 | 0.030 | 0.075 | 0.226 | 0.254 | 0.054 | 308 |
| 16/03/2020 | 02:00:00 | 23213.73 | 4407471 | 2.198 | 0.303 | 4398037 | 390 | 257 | 0.030 | 0.075 | 0.228 | 0.257 | 0.054 | 311 |
| 16/03/2020 | 03:00:00 | 23214.73 | 4407861 | 1.989 | 0.302 | 4398426 | 389 | 255 | 0.030 | 0.075 | 0.227 | 0.255 | 0.054 | 309 |
| 16/03/2020 | 04:00:00 | 23215.73 | 4408246 | 1.99 | 0.297 | 4398811 | 385 | 247 | 0.030 | 0.075 | 0.222 | 0.247 | 0.053 | 301 |
| 16/03/2020 | 05:00:00 | 23216.73 | 4408627 | 1.982 | 0.293 | 4399191 | 380 | 241 | 0.030 | 0.075 | 0.218 | 0.240 | 0.053 | 294 |
| 16/03/2020 | 06:00:00 | 23217.73 | 4409002 | 1.998 | 0.293 | 4399565 | 374 | 241 | 0.030 | 0.075 | 0.218 | 0.240 | 0.053 | 294 |
| 16/03/2020 | 07:00:00 | 23218.73 | 4409373 | 1.981 | 0.291 | 4399936 | 371 | 238 | 0.030 | 0.075 | 0.216 | 0.237 | 0.053 | 290 |
| 16/03/2020 | 08:00:00 | 23219.73 | 4409740 | 1.989 | 0.291 | 4400301 | 365 | 238 | 0.030 | 0.075 | 0.216 | 0.237 | 0.053 | 290 |
| 16/03/2020 | 09:00:00 | 23220.73 | 4410102 | 1.99 | 0.287 | 4400663 | 362 | 232 | 0.030 | 0.075 | 0.212 | 0.231 | 0.053 | 283 |
| 16/03/2020 | 10:00:00 | 23221.73 | 4410461 | 1.991 | 0.286 | 4401021 | 358 | 231 | 0.030 | 0.075 | 0.211 | 0.229 | 0.052 | 281 |
| 16/03/2020 | 11:00:00 | 23222.73 | 4410815 | 2 | 0.284 | 4401375 | 354 | 228 | 0.030 | 0.075 | 0.209 | 0.226 | 0.052 | 278 |
| 16/03/2020 | 12:00:00 | 23223.73 | 4411166 | 2.003 | 0.281 | 4401724 | 349 | 223 | 0.030 | 0.075 | 0.206 | 0.221 | 0.052 | 273 |
| 16/03/2020 | 13:00:00 | 23224.73 | 4411512 | 1.994 | 0.281 | 4402069 | 345 | 223 | 0.030 | 0.075 | 0.206 | 0.221 | 0.052 | 273 |
| 16/03/2020 | 14:00:00 | 23225.73 | 4411854 | 2.001 | 0.278 | 4402410 | 341 | 219 | 0.030 | 0.075 | 0.203 | 0.216 | 0.052 | 268 |
| 16/03/2020 | 15:00:00 | 23226.73 | 4412192 | 1.995 | 0.277 | 4402748 | 338 | 218 | 0.030 | 0.075 | 0.202 | 0.214 | 0.052 | 266 |
| 16/03/2020 | 16:00:00 | 23227.73 | 4412527 | 2.003 | 0.277 | 4403083 | 335 | 218 | 0.030 | 0.075 | 0.202 | 0.214 | 0.052 | 266 |
| 16/03/2020 | 17:00:00 | 23228.73 | 4412860 | 1.99 | 0.276 | 4403414 | 331 | 216 | 0.030 | 0.075 | 0.201 | 0.213 | 0.051 | 264 |
| 16/03/2020 | 18:00:00 | 23229.73 | 4413190 | 1.998 | 0.273 | 4403744 | 330 | 212 | 0.030 | 0.075 | 0.198 | 0.208 | 0.051 | 259 |
| 16/03/2020 | 19:00:00 | 23230.73 | 4413524 | 2.009 | 0.278 | 4404077 | 333 | 219 | 0.030 | 0.075 | 0.203 | 0.216 | 0.052 | 268 |
| 16/03/2020 | 20:00:00 | 23231.73 | 4413879 | 1.994 | 0.293 | 4404431 | 354 | 241 | 0.030 | 0.075 | 0.218 | 0.240 | 0.053 | 294 |
| 16/03/2020 | 21:00:00 | 23232.73 | 4414259 | 1.993 | 0.296 | 4404811 | 380 | 246 | 0.030 | 0.075 | 0.221 | 0.245 | 0.053 | 299 |
| 16/03/2020 | 22:00:00 | 23233.73 | 4414648 | 2.274 | 0.31 | 4405199 | 388 | 268 | 0.030 | 0.075 | 0.235 | 0.269 | 0.055 | 324 |
| 16/03/2020 | 23:00:00 | 23234.73 | 4415039 | 2.303 | 0.315 | 4405589 | 390 | 276 | 0.030 | 0.075 | 0.240 | 0.278 | 0.055 | 333 |
| 17/03/2020 | 00:00:00 | 23235.73 | 4415429 | 2.326 | 0.32 | 4405979 | 390 | 285 | 0.030 | 0.075 | 0.245 | 0.286 | 0.055 | 342 |
| 17/03/2020 | 01:00:00 | 23236.73 | 4415820 | 2.354 | 0.329 | 4406369 | 390 | 300 | 0.030 | 0.075 | 0.254 | 0.302 | 0.056 | 359 |
| 17/03/2020 | 02:00:00 | 23237.73 | 4416211 | 2.4 | 0.358 | 4406759 | 390 | 354 | 0.030 | 0.075 | 0.283 | 0.356 | 0.059 | 414 |
| 17/03/2020 | 03:00:00 | 23238.73 | 4416603 | 2.529 | 0.415 | 4407150 | 391 | 475 | 0.030 | 0.075 | 0.340 | 0.468 | 0.063 | 531 |
| 17/03/2020 | 04:00:00 | 23239.73 | 4416994 | 2.6 | 0.448 | 4407541 | 391 | 555 | 0.030 | 0.075 | 0.373 | 0.538 | 0.066 | 604 |
| 17/03/2020 | 05:00:00 | 23240.73 | 4417385 | 2.598 | 0.443 | 4407931 | 390 | 543 | 0.030 | 0.075 | 0.368 | 0.527 | 0.065 | 593 |
| 17/03/2020 | 06:00:00 | 23241.73 | 4417777 | 2.545 | 0.417 | 4408322 | 391 | 480 | 0.030 | 0.075 | 0.342 | 0.472 | 0.063 | 536 |
| 17/03/2020 | 07:00:00 | 23242.73 | 4418168 | 2.469 | 0.384 | 4408712 | 390 | 407 | 0.030 | 0.075 | 0.309 | 0.406 | 0.061 | 467 |
| 17/03/2020 | 08:00:00 | 23243.73 | 4418559 | 2.394 | 0.361 | 4409103 | 391 | 360 | 0.030 | 0.075 | 0.286 | 0.361 | 0.059 | 420 |
| 17/03/2020 | 09:00:00 | 23244.74 | 4418950 | 2.368 | 0. | | | | | | | | | |

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|------------|----------|----------|---------|-------|-------|---------|-----|-----|-------|-------|-------|-------|-------|-----|
| 18/03/2020 | 02:00:00 | 23261.55 | 4425312 | 2.643 | 0.482 | 4415842 | 391 | 645 | 0.030 | 0.075 | 0.407 | 0.613 | 0.068 | 681 |
| 18/03/2020 | 03:00:00 | 23262.55 | 4425703 | 2.558 | 0.437 | 4416232 | 390 | 528 | 0.030 | 0.075 | 0.362 | 0.515 | 0.065 | 579 |
| 18/03/2020 | 04:00:00 | 23263.55 | 4426094 | 2.48 | 0.404 | 4416623 | 391 | 450 | 0.030 | 0.075 | 0.329 | 0.446 | 0.062 | 508 |
| 18/03/2020 | 05:00:00 | 23264.55 | 4426485 | 2.411 | 0.38 | 4417013 | 390 | 398 | 0.030 | 0.075 | 0.305 | 0.398 | 0.060 | 458 |
| 18/03/2020 | 06:00:00 | 23265.55 | 4426876 | 2.38 | 0.362 | 4417403 | 390 | 362 | 0.030 | 0.075 | 0.287 | 0.363 | 0.059 | 422 |
| 18/03/2020 | 07:00:00 | 23266.55 | 4427266 | 2.361 | 0.346 | 4417793 | 390 | 331 | 0.030 | 0.075 | 0.271 | 0.333 | 0.058 | 391 |
| 18/03/2020 | 08:00:00 | 23267.55 | 4427657 | 2.342 | 0.333 | 4418182 | 389 | 307 | 0.030 | 0.075 | 0.258 | 0.310 | 0.057 | 366 |
| 18/03/2020 | 09:00:00 | 23268.55 | 4428047 | 2.328 | 0.324 | 4418572 | 390 | 292 | 0.030 | 0.075 | 0.249 | 0.294 | 0.056 | 349 |
| 18/03/2020 | 10:00:00 | 23269.55 | 4428438 | 2.311 | 0.315 | 4418962 | 390 | 276 | 0.030 | 0.075 | 0.240 | 0.278 | 0.055 | 333 |
| 18/03/2020 | 11:00:00 | 23270.55 | 4428828 | 2.285 | 0.31 | 4419351 | 389 | 268 | 0.030 | 0.075 | 0.235 | 0.269 | 0.055 | 324 |
| 18/03/2020 | 12:00:00 | 23271.55 | 4429219 | 2.273 | 0.305 | 4419741 | 390 | 260 | 0.030 | 0.075 | 0.230 | 0.261 | 0.054 | 315 |
| 18/03/2020 | 13:00:00 | 23272.55 | 4429609 | 2.257 | 0.299 | 4420131 | 390 | 250 | 0.030 | 0.075 | 0.224 | 0.250 | 0.054 | 304 |
| 18/03/2020 | 14:00:00 | 23273.55 | 4429999 | 2.225 | 0.297 | 4420520 | 389 | 247 | 0.030 | 0.075 | 0.222 | 0.247 | 0.053 | 301 |
| 18/03/2020 | 15:00:00 | 23274.55 | 4430389 | 2.213 | 0.291 | 4420910 | 390 | 238 | 0.030 | 0.075 | 0.216 | 0.237 | 0.053 | 290 |
| 18/03/2020 | 16:00:00 | 23275.55 | 4430779 | 1.995 | 0.288 | 4421299 | 389 | 234 | 0.030 | 0.075 | 0.213 | 0.232 | 0.053 | 285 |
| 18/03/2020 | 17:00:00 | 23276.55 | 4431164 | 1.991 | 0.286 | 4421683 | 384 | 231 | 0.030 | 0.075 | 0.211 | 0.229 | 0.052 | 281 |
| 18/03/2020 | 18:00:00 | 23277.55 | 4431542 | 2.006 | 0.284 | 4422060 | 377 | 228 | 0.030 | 0.075 | 0.209 | 0.226 | 0.052 | 278 |
| 18/03/2020 | 19:00:00 | 23278.55 | 4431913 | 2 | 0.282 | 4422430 | 370 | 225 | 0.030 | 0.075 | 0.207 | 0.222 | 0.052 | 275 |
| 18/03/2020 | 20:00:00 | 23278.65 | 4431949 | 2.557 | 0.28 | 4422466 | 36 | 222 | 0.030 | 0.075 | 0.205 | 0.219 | 0.052 | 271 |
| 18/03/2020 | 21:00:00 | 23279.54 | 4432204 | 1.992 | 0.278 | 4422720 | 254 | 219 | 0.030 | 0.075 | 0.203 | 0.216 | 0.052 | 268 |
| 18/03/2020 | 22:00:00 | 23280.54 | 4432560 | 2.012 | 0.276 | 4423075 | 355 | 216 | 0.030 | 0.075 | 0.201 | 0.213 | 0.051 | 264 |
| 18/03/2020 | 23:00:00 | 23281.54 | 4432911 | 1.979 | 0.275 | 4423426 | 351 | 215 | 0.030 | 0.075 | 0.200 | 0.211 | 0.051 | 263 |
| 19/03/2020 | 00:00:00 | 23282.54 | 4433259 | 1.991 | 0.271 | 4423773 | 347 | 209 | 0.030 | 0.075 | 0.196 | 0.205 | 0.051 | 256 |
| 19/03/2020 | 01:00:00 | 23283.54 | 4433603 | 1.997 | 0.271 | 4424116 | 343 | 209 | 0.030 | 0.075 | 0.196 | 0.205 | 0.051 | 256 |
| 19/03/2020 | 02:00:00 | 23284.54 | 4433943 | 2.004 | 0.27 | 4424456 | 340 | 208 | 0.030 | 0.075 | 0.195 | 0.203 | 0.051 | 254 |
| 19/03/2020 | 03:00:00 | 23285.55 | 4434281 | 1.997 | 0.269 | 4424792 | 336 | 207 | 0.030 | 0.075 | 0.194 | 0.202 | 0.051 | 253 |
| 19/03/2020 | 04:00:00 | 23286.54 | 4434614 | 2.001 | 0.268 | 4425125 | 333 | 205 | 0.030 | 0.075 | 0.193 | 0.200 | 0.051 | 251 |
| 19/03/2020 | 05:00:00 | 23287.55 | 4434945 | 2.005 | 0.268 | 4425455 | 330 | 205 | 0.030 | 0.075 | 0.193 | 0.200 | 0.051 | 251 |
| 19/03/2020 | 06:00:00 | 23288.55 | 4435273 | 2.002 | 0.265 | 4425782 | 327 | 201 | 0.030 | 0.075 | 0.190 | 0.196 | 0.050 | 246 |
| 19/03/2020 | 07:00:00 | 23289.55 | 4435598 | 1.994 | 0.264 | 4426106 | 324 | 200 | 0.030 | 0.075 | 0.189 | 0.194 | 0.050 | 244 |
| 19/03/2020 | 08:00:00 | 23290.55 | 4435920 | 2.002 | 0.264 | 4426427 | 321 | 200 | 0.030 | 0.075 | 0.189 | 0.194 | 0.050 | 244 |
| 19/03/2020 | 09:00:00 | 23291.55 | 4436240 | 1.994 | 0.263 | 4426747 | 320 | 198 | 0.030 | 0.075 | 0.188 | 0.193 | 0.050 | 243 |
| 19/03/2020 | 10:00:00 | 23292.55 | 4436559 | 1.99 | 0.262 | 4427065 | 318 | 197 | 0.030 | 0.075 | 0.187 | 0.191 | 0.050 | 241 |
| 19/03/2020 | 11:00:00 | 23293.55 | 4436876 | 1.996 | 0.26 | 4427381 | 316 | 195 | 0.030 | 0.075 | 0.185 | 0.188 | 0.050 | 238 |
| 19/03/2020 | 12:00:00 | 23294.55 | 4437190 | 1.988 | 0.259 | 4427694 | 313 | 193 | 0.030 | 0.075 | 0.184 | 0.186 | 0.050 | 236 |
| 19/03/2020 | 13:00:00 | 23295.55 | 4437501 | 1.989 | 0.258 | 4428005 | 311 | 192 | 0.030 | 0.075 | 0.183 | 0.185 | 0.050 | 235 |
| 19/03/2020 | 14:00:00 | 23296.55 | 4437808 | 2.002 | 0.258 | 4428311 | 306 | 192 | 0.030 | 0.075 | 0.183 | 0.185 | 0.050 | 235 |
| 19/03/2020 | 15:00:00 | 23297.55 | 4438111 | 1.991 | 0.255 | 4428613 | 302 | 188 | 0.030 | 0.075 | 0.180 | 0.180 | 0.049 | 230 |
| 19/03/2020 | 16:00:00 | 23298.55 | 4438410 | 2 | 0.254 | 4428912 | 299 | 187 | 0.030 | 0.075 | 0.179 | 0.179 | 0.049 | 228 |
| 19/03/2020 | 17:00:00 | 23299.55 | 4438706 | 2.012 | 0.254 | 4429207 | 295 | 187 | 0.030 | 0.075 | 0.179 | 0.179 | 0.049 | 228 |
| 19/03/2020 | 18:00:00 | 23300.55 | 4439000 | 1.995 | 0.251 | 4429500 | 293 | 183 | 0.030 | 0.075 | 0.176 | 0.174 | 0.049 | 224 |
| 19/03/2020 | 19:00:00 | 23301.55 | 4439292 | 2 | 0.251 | 4429791 | 291 | 183 | 0.030 | 0.075 | 0.176 | 0.174 | 0.049 | 224 |
| 19/03/2020 | 20:00:00 | 23302.55 | 4439581 | 2.001 | 0.25 | 4430079 | 288 | 182 | 0.030 | 0.075 | 0.175 | 0.173 | 0.049 | 222 |
| 19/03/2020 | 21:00:00 | 23303.55 | 4439867 | 2.006 | 0.247 | 4430365 | 286 | 178 | 0.030 | 0.075 | 0.172 | 0.169 | 0.049 | 217 |
| 19/03/2020 | 22:00:00 | 23304.55 | 4440151 | 2.008 | 0.247 | 4430647 | 282 | 178 | 0.030 | 0.075 | 0.172 | 0.169 | 0.049 | 217 |
| 19/03/2020 | 23:00:00 | 23305.55 | 4440431 | 1.989 | 0.246 | 4430927 | 280 | 177 | 0.030 | 0.075 | 0.171 | 0.167 | 0.049 | 216 |
| 20/03/2020 | 00:00:00 | 23306.55 | 4440709 | 2.007 | 0.246 | 4431204 | 277 | 177 | 0.030 | 0.075 | 0.171 | 0.167 | 0.049 | 216 |
| 20/03/2020 | 01:00:00 | 23307.55 | 4440984 | 2.009 | 0.243 | 4431479 | 275 | 173 | 0.030 | 0.075 | 0.168 | 0.163 | 0.048 | 211 |
| 20/03/2020 | 02:00:00 | 23308.55 | 4441256 | 1.992 | 0.242 | 4431750 | 271 | 172 | 0.030 | 0.075 | 0.167 | 0.161 | 0.048 | 209 |
| 20/03/2020 | 03:00:00 | 23309.55 | 4441526 | 1.995 | 0.241 | 4432019 | 269 | 171 | 0.030 | 0.075 | 0.166 | 0.160 | 0.048 | 208 |
| 20/03/2020 | 04:00:00 | 23310.55 | 4441792 | 2.004 | 0.239 | 4432285 | 266 | 169 | 0.030 | 0.075 | 0.164 | 0.157 | 0.048 | 205 |
| 20/03/2020 | 05:00:00 | 23311.55 | 4442056 | 2.002 | 0.238 | 4432548 | 263 | 167 | 0.030 | 0.075 | 0.163 | 0.155 | 0.048 | 203 |
| 20/03/2020 | 06:00:00 | 23312.55 | 4442317 | 1.998 | 0.237 | 4432808 | 260 | 166 | 0.030 | 0.075 | 0.162 | 0.154 | 0.048 | 202 |
| 20/03/2020 | 07:00:00 | 23313.55 | 4442575 | 2.009 | 0.236 | 4433065 | 257 | 165 | 0.030 | 0.075 | 0.161 | 0.153 | 0.048 | 200 |
| 20/03/2020 | 08:00:00 | 23314.55 | 4442830 | 1.997 | 0.234 | 4433320 | 255 | 163 | 0.030 | 0.075 | 0.159 | 0.150 | 0.047 | 197 |
| 20/03/2020 | 09:00:00 | 23315.55 | 4443083 | 1.991 | 0.233 | 4433573 | 253 | 162 | 0.030 | 0.075 | 0.158 | 0.148 | 0.047 | 196 |
| 20/03/2020 | 10:00:00 | 23316.55 | 4443335 | 2.001 | 0.233 | 4433823 | 250 | 162 | 0.030 | 0.075 | 0.158 | 0.148 | 0.047 | 196 |
| 20/03/2020 | 11:00:00 | 23317.55 | 4443584 | 1.983 | 0.232 | 4434072 | 249 | 160 | 0.030 | 0.075 | 0.157 | 0.147 | 0.047 | 194 |
| 20/03/2020 | 12:00:00 | 23318.55 | 4443832 | 1.995 | 0.231 | 4434320 | 248 | 159 | 0.030 | 0.075 | 0.156 | 0.146 | 0.047 | 193 |
| 20/03/2020 | 13:00:00 | 23319.55 | 4444078 | 1.999 | 0.23 | 4434564 | 244 | 158 | 0.030 | 0.075 | 0.155 | 0.144 | 0.047 | 191 |
| 20/03/2020 | 14:00:00 | 23320.55 | 4444318 | 2.012 | 0.228 | 4434804 | 240 | 156 | 0.030 | 0.075 | 0.153 | 0.141 | 0.047 | 188 |
| 20/03/2020 | 15:00:00 | 23321.55 | 4444554 | 1.997 | 0.227 | 4435040 | 236 | 155 | 0.030 | 0.075 | 0.152 | 0.140 | 0.047 | 187 |
| 20/03/2020 | 16:00:00 | 23322.55 | 4444787 | 1.996 | 0.224 | 4435272 | 232 | 152 | 0.030 | 0.075 | 0.149 | 0.136 | 0.046 | 182 |
| 20/03/2020 | 17:00:00 | 23323.55 | 4445018 | 2.001 | 0.224 | 4435503 | 231 | 152 | 0.030 | 0.075 | 0.149 | 0.136 | 0.046 | 182 |
| 20/03/2020 | 18:00:00 | 23324.55 | 4445247 | 1.996 | 0.223 | 4435730 | 227 | 151 | 0.030 | 0.075 | 0.148 | 0.135 | 0.046 | 181 |
| 20/03/2020 | 19:00:00 | 23325.55 | 4445474 | 2.002 | 0.222 | 4435957 | 227 | 150 | 0.030 | 0.075 | 0.147 | 0.133 | 0.046 | 179 |
| 20/03/2020 | 20:00:00 | 23326.55 | 4445699 | 2.002 | 0.22 | 4436182 | 225 | 147 | 0.030 | 0.075 | 0.145 | 0.130 | 0.046 | 176 |
| 20/03/2020 | 21:00:00 | 23327.55 | 4445923 | 2 | 0.221 | 4436405 | 223 | 149 | 0.030 | 0.075 | 0.146 | 0.132 | 0.046 | 178 |
| 20/03/2020 | 22:00:00 | 23328.55 | 4446144 | 2 | 0.22 | 4436626 | 221 | 147 | 0.030 | 0.075 | 0.145 | 0.130 | 0.046 | 176 |
| 20/03/2020 | 23:00:00 | 23329.55 | 4446364 | 1.998 | 0.217 | 4436844 | 218 | 144 | 0.030 | 0.075 | 0.142 | 0.126 | 0.046 | 172 |
| 21/03/2020 | 00:00:00 | 23330.55 | 4446581 | 2 | 0.217 | 4437061 | 217 | 144 | 0.030 | 0.075 | 0.142 | 0.126 | 0.046 | 172 |
| 21/03/2020 | 01:00:00 | 23331.55 | 4446796 | 1.995 | 0.215 | 4437276 | 215 | 142 | 0.030 | 0.075 | 0.140 | 0.124 | 0.045 | 169 |
| 21/03/2020 | 02:00:00 | 23332.55 | 4447010 | 2.001 | 0.216 | 4437489 | 213 | 143 | 0.030 | 0.075 | 0.141 | 0.125 | 0.046 | 171 |
| 21/03/2020 | 03:00:00 | 23333.55 | 4447221 | 1.998 | 0.215 | 4437699 | 210 | 142 | 0.030 | 0.075 | 0.140 | 0.124 | 0.045 | 169 |
| 21/03/2020 | 04:00:00 | 23334.55 | 4447430 | 2.006 | 0.213 | 4437908 | 209 | 140 | 0.030 | 0.075 | 0.138 | 0.121 | 0.045 | 166 |
| 21/03/2020 | 05:00:00 | 23335.55 | 4447637 | 1.997 | 0.213 | 443811 | | | | | | | | |

| | | | | | | | | | | | | | | |
|------------|----------|----------|---------|-------|-------|---------|-----|-----|-------|-------|-------|-------|-------|-----|
| 21/03/2020 | 22:00:00 | 23352.55 | 4450860 | 2.002 | 0.2 | 4441329 | 174 | 128 | 0.030 | 0.075 | 0.125 | 0.104 | 0.044 | 148 |
| 21/03/2020 | 23:00:00 | 23353.55 | 4451033 | 2.004 | 0.199 | 4441501 | 172 | 127 | 0.030 | 0.075 | 0.124 | 0.103 | 0.044 | 147 |
| 22/03/2020 | 00:00:00 | 23354.55 | 4451204 | 2.002 | 0.199 | 4441672 | 171 | 127 | 0.030 | 0.075 | 0.124 | 0.103 | 0.044 | 147 |
| 22/03/2020 | 01:00:00 | 23355.55 | 4451374 | 1.999 | 0.197 | 4441841 | 169 | 125 | 0.030 | 0.075 | 0.122 | 0.101 | 0.043 | 144 |
| 22/03/2020 | 02:00:00 | 23356.55 | 4451542 | 1.998 | 0.196 | 4442009 | 168 | 124 | 0.030 | 0.075 | 0.121 | 0.099 | 0.043 | 143 |
| 22/03/2020 | 03:00:00 | 23357.55 | 4451709 | 2.003 | 0.197 | 4442176 | 167 | 125 | 0.030 | 0.075 | 0.122 | 0.101 | 0.043 | 144 |
| 22/03/2020 | 04:00:00 | 23358.55 | 4451875 | 1.998 | 0.195 | 4442341 | 165 | 123 | 0.030 | 0.075 | 0.120 | 0.098 | 0.043 | 141 |
| 22/03/2020 | 05:00:00 | 23359.55 | 4452039 | 1.998 | 0.195 | 4442504 | 163 | 123 | 0.030 | 0.075 | 0.120 | 0.098 | 0.043 | 141 |
| 22/03/2020 | 06:00:00 | 23360.55 | 4452201 | 2.002 | 0.195 | 4442666 | 162 | 123 | 0.030 | 0.075 | 0.120 | 0.098 | 0.043 | 141 |
| 22/03/2020 | 07:00:00 | 23361.55 | 4452363 | 2.003 | 0.193 | 4442827 | 161 | 122 | 0.030 | 0.075 | 0.118 | 0.096 | 0.043 | 139 |
| 22/03/2020 | 08:00:00 | 23362.55 | 4452522 | 2.002 | 0.194 | 4442987 | 160 | 122 | 0.030 | 0.075 | 0.119 | 0.097 | 0.043 | 140 |
| 22/03/2020 | 09:00:00 | 23363.55 | 4452681 | 1.999 | 0.192 | 4443145 | 158 | 121 | 0.030 | 0.075 | 0.117 | 0.095 | 0.043 | 137 |
| 22/03/2020 | 10:00:00 | 23364.55 | 4452840 | 2.002 | 0.192 | 4443303 | 158 | 121 | 0.030 | 0.075 | 0.117 | 0.095 | 0.043 | 137 |
| 22/03/2020 | 11:00:00 | 23365.55 | 4452997 | 2 | 0.191 | 4443460 | 157 | 120 | 0.030 | 0.075 | 0.116 | 0.093 | 0.043 | 136 |
| 22/03/2020 | 12:00:00 | 23366.55 | 4453153 | 2 | 0.191 | 4443616 | 156 | 120 | 0.030 | 0.075 | 0.116 | 0.093 | 0.043 | 136 |
| 22/03/2020 | 13:00:00 | 23367.55 | 4453309 | 2.004 | 0.191 | 4443771 | 155 | 120 | 0.030 | 0.075 | 0.116 | 0.093 | 0.043 | 136 |
| 22/03/2020 | 14:00:00 | 23368.55 | 4453462 | 2.003 | 0.191 | 4443924 | 153 | 120 | 0.030 | 0.075 | 0.116 | 0.093 | 0.043 | 136 |
| 22/03/2020 | 15:00:00 | 23369.55 | 4453613 | 2 | 0.19 | 4444075 | 151 | 119 | 0.030 | 0.075 | 0.115 | 0.092 | 0.043 | 135 |
| 22/03/2020 | 16:00:00 | 23370.55 | 4453763 | 1.998 | 0.189 | 4444224 | 149 | 118 | 0.030 | 0.075 | 0.114 | 0.091 | 0.043 | 134 |
| 22/03/2020 | 17:00:00 | 23371.55 | 4453910 | 2 | 0.187 | 4444371 | 147 | 116 | 0.030 | 0.075 | 0.112 | 0.089 | 0.042 | 131 |
| 22/03/2020 | 18:00:00 | 23372.55 | 4454057 | 2.002 | 0.187 | 4444517 | 146 | 116 | 0.030 | 0.075 | 0.112 | 0.089 | 0.042 | 131 |
| 22/03/2020 | 19:00:00 | 23373.55 | 4454202 | 2 | 0.187 | 4444662 | 145 | 116 | 0.030 | 0.075 | 0.112 | 0.089 | 0.042 | 131 |
| 22/03/2020 | 20:00:00 | 23374.55 | 4454346 | 1.995 | 0.187 | 4444805 | 143 | 116 | 0.030 | 0.075 | 0.112 | 0.089 | 0.042 | 131 |
| 22/03/2020 | 21:00:00 | 23375.55 | 4454488 | 1.997 | 0.185 | 4444947 | 142 | 115 | 0.030 | 0.075 | 0.110 | 0.086 | 0.042 | 128 |
| 22/03/2020 | 22:00:00 | 23376.55 | 4454629 | 1.998 | 0.184 | 4445087 | 140 | 114 | 0.030 | 0.075 | 0.109 | 0.085 | 0.042 | 127 |
| 22/03/2020 | 23:00:00 | 23377.55 | 4454767 | 2.001 | 0.183 | 4445226 | 139 | 113 | 0.030 | 0.075 | 0.108 | 0.084 | 0.042 | 126 |
| 23/03/2020 | 00:00:00 | 23378.55 | 4454905 | 2.003 | 0.184 | 4445363 | 137 | 114 | 0.030 | 0.075 | 0.109 | 0.085 | 0.042 | 127 |
| 23/03/2020 | 01:00:00 | 23379.55 | 4455042 | 1.997 | 0.182 | 4445499 | 136 | 112 | 0.030 | 0.075 | 0.107 | 0.083 | 0.042 | 124 |
| 23/03/2020 | 02:00:00 | 23380.55 | 4455178 | 1.994 | 0.18 | 4445635 | 136 | 111 | 0.030 | 0.075 | 0.105 | 0.080 | 0.042 | 122 |
| 23/03/2020 | 03:00:00 | 23381.55 | 4455312 | 1.997 | 0.181 | 4445769 | 134 | 112 | 0.030 | 0.075 | 0.106 | 0.082 | 0.042 | 123 |
| 23/03/2020 | 04:00:00 | 23382.55 | 4455446 | 1.997 | 0.18 | 4445902 | 133 | 111 | 0.030 | 0.075 | 0.105 | 0.080 | 0.042 | 122 |
| 23/03/2020 | 05:00:00 | 23383.55 | 4455579 | 2.001 | 0.18 | 4446035 | 133 | 111 | 0.030 | 0.075 | 0.105 | 0.080 | 0.042 | 122 |
| 23/03/2020 | 06:00:00 | 23384.55 | 4455711 | 2.002 | 0.18 | 4446166 | 131 | 111 | 0.030 | 0.075 | 0.105 | 0.080 | 0.042 | 122 |
| 23/03/2020 | 07:00:00 | 23385.55 | 4455842 | 2.002 | 0.18 | 4446297 | 131 | 111 | 0.030 | 0.075 | 0.105 | 0.080 | 0.042 | 122 |
| 23/03/2020 | 08:00:00 | 23386.06 | 4455888 | 2.101 | 0.178 | 4446343 | 129 | 109 | 0.030 | 0.075 | 0.103 | 0.078 | 0.041 | 119 |
| 23/03/2020 | 09:00:00 | 23387.06 | 4456018 | 2.002 | 0.179 | 4446472 | 126 | 110 | 0.030 | 0.075 | 0.104 | 0.079 | 0.041 | 121 |
| 23/03/2020 | 10:00:00 | 23388.06 | 4456146 | 2.002 | 0.178 | 4446600 | 128 | 109 | 0.030 | 0.075 | 0.103 | 0.078 | 0.041 | 119 |
| 23/03/2020 | 11:00:00 | 23389.06 | 4456272 | 2.001 | 0.177 | 4446726 | 126 | 109 | 0.030 | 0.075 | 0.102 | 0.077 | 0.041 | 118 |
| 23/03/2020 | 12:00:00 | 23390.06 | 4456398 | 2 | 0.176 | 4446851 | 125 | 108 | 0.030 | 0.075 | 0.101 | 0.076 | 0.041 | 117 |
| 23/03/2020 | 13:00:00 | 23391.06 | 4456521 | 2.004 | 0.176 | 4446974 | 123 | 108 | 0.030 | 0.075 | 0.101 | 0.076 | 0.041 | 117 |
| 23/03/2020 | 14:00:00 | 23392.06 | 4456643 | 1.998 | 0.174 | 4447096 | 122 | 106 | 0.030 | 0.075 | 0.099 | 0.074 | 0.041 | 114 |
| 23/03/2020 | 15:00:00 | 23393.06 | 4456764 | 2.001 | 0.173 | 4447217 | 121 | 105 | 0.030 | 0.075 | 0.098 | 0.072 | 0.041 | 113 |
| 23/03/2020 | 16:00:00 | 23394.06 | 4456883 | 1.998 | 0.172 | 4447336 | 119 | 105 | 0.030 | 0.075 | 0.097 | 0.071 | 0.041 | 112 |
| 23/03/2020 | 17:00:00 | 23395.06 | 4457001 | 2.001 | 0.172 | 4447453 | 117 | 105 | 0.030 | 0.075 | 0.097 | 0.071 | 0.041 | 112 |
| 23/03/2020 | 18:00:00 | 23396.06 | 4457119 | 1.998 | 0.172 | 4447570 | 117 | 105 | 0.030 | 0.075 | 0.097 | 0.071 | 0.041 | 112 |
| 23/03/2020 | 19:00:00 | 23397.06 | 4457236 | 2.002 | 0.171 | 4447687 | 117 | 104 | 0.030 | 0.075 | 0.096 | 0.070 | 0.041 | 111 |
| 23/03/2020 | 20:00:00 | 23398.06 | 4457353 | 1.997 | 0.171 | 4447804 | 117 | 104 | 0.030 | 0.075 | 0.096 | 0.070 | 0.041 | 111 |
| 23/03/2020 | 21:00:00 | 23399.06 | 4457469 | 2.003 | 0.172 | 4447920 | 116 | 105 | 0.030 | 0.075 | 0.097 | 0.071 | 0.041 | 112 |
| 23/03/2020 | 22:00:00 | 23400.06 | 4457585 | 2.006 | 0.172 | 4448035 | 115 | 105 | 0.030 | 0.075 | 0.097 | 0.071 | 0.041 | 112 |
| 23/03/2020 | 23:00:00 | 23401.06 | 4457699 | 1.997 | 0.171 | 4448149 | 114 | 104 | 0.030 | 0.075 | 0.096 | 0.070 | 0.041 | 111 |
| 24/03/2020 | 00:00:00 | 23402.06 | 4457813 | 1.991 | 0.17 | 4448263 | 114 | 103 | 0.030 | 0.075 | 0.095 | 0.069 | 0.040 | 110 |
| 24/03/2020 | 01:00:00 | 23403.06 | 4457927 | 1.99 | 0.169 | 4448376 | 113 | 103 | 0.030 | 0.075 | 0.094 | 0.068 | 0.040 | 108 |
| 24/03/2020 | 02:00:00 | 23404.06 | 4458039 | 2.004 | 0.17 | 4448489 | 113 | 103 | 0.030 | 0.075 | 0.095 | 0.069 | 0.040 | 110 |
| 24/03/2020 | 03:00:00 | 23405.06 | 4458151 | 1.998 | 0.17 | 4448600 | 111 | 103 | 0.030 | 0.075 | 0.095 | 0.069 | 0.040 | 110 |
| 24/03/2020 | 04:00:00 | 23406.06 | 4458263 | 2.001 | 0.168 | 4448711 | 111 | 102 | 0.030 | 0.075 | 0.093 | 0.067 | 0.040 | 107 |
| 24/03/2020 | 05:00:00 | 23407.06 | 4458373 | 2 | 0.17 | 4448821 | 110 | 103 | 0.030 | 0.075 | 0.095 | 0.069 | 0.040 | 110 |
| 24/03/2020 | 06:00:00 | 23408.06 | 4458482 | 2.002 | 0.169 | 4448930 | 109 | 103 | 0.030 | 0.075 | 0.094 | 0.068 | 0.040 | 108 |
| 24/03/2020 | 07:00:00 | 23409.06 | 4458591 | 2.003 | 0.168 | 4449039 | 109 | 102 | 0.030 | 0.075 | 0.093 | 0.067 | 0.040 | 107 |
| 24/03/2020 | 08:00:00 | 23410.06 | 4458698 | 2.002 | 0.168 | 4449146 | 107 | 102 | 0.030 | 0.075 | 0.093 | 0.067 | 0.040 | 107 |
| 24/03/2020 | 09:00:00 | 23411.06 | 4458805 | 2.004 | 0.167 | 4449252 | 106 | 101 | 0.030 | 0.075 | 0.092 | 0.066 | 0.040 | 106 |
| 24/03/2020 | 10:00:00 | 23412.06 | 4458910 | 1.992 | 0.166 | 4449357 | 105 | 100 | 0.030 | 0.075 | 0.091 | 0.065 | 0.040 | 105 |
| 24/03/2020 | 11:00:00 | 23413.06 | 4459014 | 1.998 | 0.166 | 4449461 | 104 | 100 | 0.030 | 0.075 | 0.091 | 0.065 | 0.040 | 105 |
| 24/03/2020 | 12:00:00 | 23414.06 | 4459118 | 2.003 | 0.165 | 4449565 | 104 | 100 | 0.030 | 0.075 | 0.090 | 0.064 | 0.040 | 104 |
| 24/03/2020 | 13:00:00 | 23415.06 | 4459222 | 1.998 | 0.166 | 4449668 | 103 | 100 | 0.030 | 0.075 | 0.091 | 0.065 | 0.040 | 105 |
| 24/03/2020 | 14:00:00 | 23416.06 | 4459324 | 1.997 | 0.165 | 4449770 | 102 | 100 | 0.030 | 0.075 | 0.090 | 0.064 | 0.040 | 104 |
| 24/03/2020 | 15:00:00 | 23417.06 | 4459426 | 2.003 | 0.165 | 4449872 | 102 | 100 | 0.030 | 0.075 | 0.090 | 0.064 | 0.040 | 104 |
| 24/03/2020 | 16:00:00 | 23418.06 | 4459528 | 2.001 | 0.165 | 4449973 | 101 | 100 | 0.030 | 0.075 | 0.090 | 0.064 | 0.040 | 104 |
| 24/03/2020 | 17:00:00 | 23419.06 | 4459629 | 2.003 | 0.164 | 4450074 | 101 | 99 | 0.030 | 0.075 | 0.089 | 0.063 | 0.040 | 102 |
| 24/03/2020 | 18:00:00 | 23420.06 | 4459730 | 1.997 | 0.165 | 4450174 | 100 | 100 | 0.030 | 0.075 | 0.090 | 0.064 | 0.040 | 104 |
| 24/03/2020 | 19:00:00 | 23421.06 | 4459830 | 1.998 | 0.164 | 4450274 | 100 | 99 | 0.030 | 0.075 | 0.089 | 0.063 | 0.040 | 102 |
| 24/03/2020 | 20:00:00 | 23422.06 | 4459930 | 1.997 | 0.164 | 4450374 | 100 | 99 | 0.030 | 0.075 | 0.089 | 0.063 | 0.040 | 102 |
| 24/03/2020 | 21:00:00 | 23423.06 | 4460029 | 1.998 | 0.164 | 4450473 | 99 | 99 | 0.030 | 0.075 | 0.089 | 0.063 | 0.040 | 102 |
| 24/03/2020 | 22:00:00 | 23424.06 | 4460129 | 1.997 | 0.163 | 4450572 | 99 | 98 | 0.030 | 0.075 | 0.088 | 0.062 | 0.040 | 101 |
| 24/03/2020 | 23:00:00 | 23425.06 | 4460227 | 2.005 | 0.164 | 4450670 | 98 | 99 | 0.030 | 0.075 | 0.089 | 0.063 | 0.040 | 102 |
| 25/03/2020 | 00:00:00 | 23426.06 | 4460325 | 2 | 0.163 | 4450768 | 98 | 98 | 0.030 | 0.075 | 0.088 | 0.062 | 0.040 | 101 |
| 25/03/2020 | 01:00:00 | 23427.06 | 4460423 | 2.002 | 0.163 | 4450865 | 97 | 98 | | | | | | |

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|------------|----------|----------|---------|-------|---|---------|---------|----|--|----|-------|-------|-------|-------|-------|----|
| 25/03/2020 | 18:00:00 | 23444.06 | 4461967 | | 2 | 0.157 | 4452406 | 85 | | 94 | 0.030 | 0.075 | 0.082 | 0.055 | 0.039 | 94 |
| 25/03/2020 | 19:00:00 | 23445.06 | 4462052 | 2.001 | | 0.157 | 4452490 | 84 | | 94 | 0.030 | 0.075 | 0.082 | 0.055 | 0.039 | 94 |
| 25/03/2020 | 20:00:00 | 23446.06 | 4462137 | 2.001 | | 0.157 | 4452575 | 85 | | 94 | 0.030 | 0.075 | 0.082 | 0.055 | 0.039 | 94 |
| 25/03/2020 | 21:00:00 | 23447.06 | 4462221 | 2.002 | | 0.157 | 4452659 | 84 | | 94 | 0.030 | 0.075 | 0.082 | 0.055 | 0.039 | 94 |
| 25/03/2020 | 22:00:00 | 23448.06 | 4462305 | 1.997 | | 0.157 | 4452743 | 84 | | 94 | 0.030 | 0.075 | 0.082 | 0.055 | 0.039 | 94 |
| 25/03/2020 | 23:00:00 | 23449.06 | 4462389 | 1.998 | | 0.156 | 4452826 | 83 | | 94 | 0.030 | 0.075 | 0.081 | 0.054 | 0.039 | 93 |
| 26/03/2020 | 00:00:00 | 23450.06 | 4462472 | 1.998 | | 0.156 | 4452909 | 83 | | 94 | 0.030 | 0.075 | 0.081 | 0.054 | 0.039 | 93 |
| 26/03/2020 | 01:00:00 | 23451.06 | 4462555 | 2.003 | | 0.155 | 4452992 | 83 | | 93 | 0.030 | 0.075 | 0.080 | 0.053 | 0.039 | 92 |
| 26/03/2020 | 02:00:00 | 23452.07 | 4462637 | 2 | | 0.155 | 4453074 | 82 | | 93 | 0.030 | 0.075 | 0.080 | 0.053 | 0.039 | 92 |
| 26/03/2020 | 03:00:00 | 23453.06 | 4462719 | 2.001 | | 0.155 | 4453156 | 82 | | 93 | 0.030 | 0.075 | 0.080 | 0.053 | 0.039 | 92 |
| 26/03/2020 | 04:00:00 | 23454.06 | 4462801 | 2 | | 0.155 | 4453238 | 82 | | 93 | 0.030 | 0.075 | 0.080 | 0.053 | 0.039 | 92 |
| 26/03/2020 | 05:00:00 | 23455.07 | 4462882 | 2.002 | | 0.154 | 4453318 | 80 | | 93 | 0.030 | 0.075 | 0.079 | 0.052 | 0.038 | 91 |
| 26/03/2020 | 06:00:00 | 23456.07 | 4462963 | 1.998 | | 0.154 | 4453399 | 81 | | 93 | 0.030 | 0.075 | 0.079 | 0.052 | 0.038 | 91 |
| 26/03/2020 | 07:00:00 | 23457.07 | 4463043 | 2.001 | | 0.154 | 4453479 | 80 | | 93 | 0.030 | 0.075 | 0.079 | 0.052 | 0.038 | 91 |
| 26/03/2020 | 08:00:00 | 23458.07 | 4463123 | 2 | | 0.154 | 4453559 | 80 | | 93 | 0.030 | 0.075 | 0.079 | 0.052 | 0.038 | 91 |
| 26/03/2020 | 09:00:00 | 23459.07 | 4463202 | 1.998 | | 0.154 | 4453638 | 79 | | 93 | 0.030 | 0.075 | 0.079 | 0.052 | 0.038 | 91 |
| 26/03/2020 | 10:00:00 | 23460.07 | 4463281 | 2.002 | | 0.153 | 4453717 | 79 | | 92 | 0.030 | 0.075 | 0.078 | 0.051 | 0.038 | 90 |
| 26/03/2020 | 11:00:00 | 23461.07 | 4463360 | 2.001 | | 0.153 | 4453795 | 78 | | 92 | 0.030 | 0.075 | 0.078 | 0.051 | 0.038 | 90 |
| 26/03/2020 | 12:00:00 | 23462.07 | 4463438 | 1.999 | | 0.152 | 4453872 | 77 | | 91 | 0.030 | 0.075 | 0.077 | 0.050 | 0.038 | 89 |
| 26/03/2020 | 13:00:00 | 23463.07 | 4463515 | 2 | | 0.152 | 4453949 | 77 | | 91 | 0.030 | 0.075 | 0.077 | 0.050 | 0.038 | 89 |
| 26/03/2020 | 14:00:00 | 23464.07 | 4463590 | 2.002 | | 0.154 | 4454025 | 76 | | 93 | 0.030 | 0.075 | 0.079 | 0.052 | 0.038 | 91 |
| 26/03/2020 | 15:00:00 | 23465.07 | 4463665 | 2.001 | | 0.152 | 4454100 | 75 | | 91 | 0.030 | 0.075 | 0.077 | 0.050 | 0.038 | 89 |
| 26/03/2020 | 16:00:00 | 23466.07 | 4463740 | 2.003 | | 0.151 | 4454174 | 74 | | 91 | 0.030 | 0.075 | 0.076 | 0.049 | 0.038 | 88 |
| 26/03/2020 | 17:00:00 | 23467.07 | 4463814 | 1.997 | | 0.151 | 4454248 | 74 | | 91 | 0.030 | 0.075 | 0.076 | 0.049 | 0.038 | 88 |
| 26/03/2020 | 18:00:00 | 23468.07 | 4463888 | 2 | | 0.151 | 4454322 | 74 | | 91 | 0.030 | 0.075 | 0.076 | 0.049 | 0.038 | 88 |
| 26/03/2020 | 19:00:00 | 23469.07 | 4463962 | 2 | | 0.15 | 4454395 | 73 | | 90 | 0.030 | 0.075 | 0.075 | 0.049 | 0.038 | 86 |
| 26/03/2020 | 20:00:00 | 23470.07 | 4464035 | 2.002 | | 0.151 | 4454469 | 74 | | 91 | 0.030 | 0.075 | 0.076 | 0.049 | 0.038 | 88 |
| 26/03/2020 | 21:00:00 | 23471.07 | 4464109 | 2.002 | | 0.151 | 4454542 | 73 | | 91 | 0.030 | 0.075 | 0.076 | 0.049 | 0.038 | 88 |
| 26/03/2020 | 22:00:00 | 23472.07 | 4464181 | 2.003 | | 0.151 | 4454614 | 72 | | 91 | 0.030 | 0.075 | 0.076 | 0.049 | 0.038 | 88 |
| 26/03/2020 | 23:00:00 | 23473.07 | 4464254 | 2.001 | | 0.149 | 4454687 | 73 | | 90 | 0.030 | 0.075 | 0.074 | 0.048 | 0.038 | 85 |
| 27/03/2020 | 00:00:00 | 23474.07 | 4464326 | 2 | | 0.149 | 4454758 | 71 | | 90 | 0.030 | 0.075 | 0.074 | 0.048 | 0.038 | 85 |
| 27/03/2020 | 01:00:00 | 23475.07 | 4464398 | 1.999 | | 0.149 | 4454830 | 72 | | 90 | 0.030 | 0.075 | 0.074 | 0.048 | 0.038 | 85 |
| 27/03/2020 | 02:00:00 | 23476.07 | 4464469 | 2.002 | | 0.149 | 4454901 | 71 | | 90 | 0.030 | 0.075 | 0.074 | 0.048 | 0.038 | 85 |
| 27/03/2020 | 03:00:00 | 23477.07 | 4464539 | 2.001 | | 0.149 | 4454971 | 70 | | 90 | 0.030 | 0.075 | 0.074 | 0.048 | 0.038 | 85 |
| 27/03/2020 | 04:00:00 | 23478.07 | 4464609 | 2.002 | | 0.149 | 4455041 | 70 | | 90 | 0.030 | 0.075 | 0.074 | 0.048 | 0.038 | 85 |
| 27/03/2020 | 05:00:00 | 23479.07 | 4464678 | 2.001 | | 0.149 | 4455110 | 69 | | 90 | 0.030 | 0.075 | 0.074 | 0.048 | 0.038 | 85 |
| 27/03/2020 | 06:00:00 | 23480.07 | 4464747 | 2.001 | | 0.149 | 4455178 | 68 | | 90 | 0.030 | 0.075 | 0.074 | 0.048 | 0.038 | 85 |
| 27/03/2020 | 07:00:00 | 23481.07 | 4464816 | 1.998 | | 0.148 | 4455247 | 69 | | 89 | 0.030 | 0.075 | 0.073 | 0.047 | 0.038 | 84 |
| 27/03/2020 | 08:00:00 | 23482.07 | 4464884 | 1.998 | | 0.148 | 4455315 | 68 | | 89 | 0.030 | 0.075 | 0.073 | 0.047 | 0.038 | 84 |
| 27/03/2020 | 09:00:00 | 23483.07 | 4464952 | 2.003 | | 0.148 | 4455383 | 68 | | 89 | 0.030 | 0.075 | 0.073 | 0.047 | 0.038 | 84 |
| 27/03/2020 | 10:00:00 | 23484.07 | 4465019 | 2.002 | | 0.148 | 4455450 | 67 | | 89 | 0.030 | 0.075 | 0.073 | 0.047 | 0.038 | 84 |
| 27/03/2020 | 11:00:00 | 23485.07 | 4465087 | 2.003 | | 0.147 | 4455517 | 67 | | 88 | 0.030 | 0.075 | 0.072 | 0.046 | 0.038 | 83 |
| 27/03/2020 | 12:00:00 | 23486.07 | 4465153 | 2 | | 0.146 | 4455583 | 66 | | 88 | 0.030 | 0.075 | 0.071 | 0.045 | 0.037 | 82 |
| 27/03/2020 | 13:00:00 | 23487.07 | 4465219 | 2.003 | | 0.146 | 4455649 | 66 | | 88 | 0.030 | 0.075 | 0.071 | 0.045 | 0.037 | 82 |
| 27/03/2020 | 14:00:00 | 23488.07 | 4465283 | 2 | | 0.145 | 4455713 | 64 | | 87 | 0.030 | 0.075 | 0.070 | 0.044 | 0.037 | 81 |
| 27/03/2020 | 15:00:00 | 23489.07 | 4465347 | 2.001 | | 0.146 | 4455777 | 64 | | 88 | 0.030 | 0.075 | 0.071 | 0.045 | 0.037 | 82 |
| 27/03/2020 | 16:00:00 | 23490.07 | 4465411 | 1.997 | | 0.146 | 4455841 | 64 | | 88 | 0.030 | 0.075 | 0.071 | 0.045 | 0.037 | 82 |
| 27/03/2020 | 17:00:00 | 23491.07 | 4465475 | 1.998 | | 0.145 | 4455904 | 63 | | 87 | 0.030 | 0.075 | 0.070 | 0.044 | 0.037 | 81 |
| 27/03/2020 | 18:00:00 | 23492.07 | 4465538 | 1.999 | | 0.145 | 4455967 | 63 | | 87 | 0.030 | 0.075 | 0.070 | 0.044 | 0.037 | 81 |
| 27/03/2020 | 19:00:00 | 23493.07 | 4465600 | 2 | | 0.146 | 4456030 | 63 | | 88 | 0.030 | 0.075 | 0.071 | 0.045 | 0.037 | 82 |
| 27/03/2020 | 20:00:00 | 23494.07 | 4465663 | 1.996 | | 0.144 | 4456092 | 62 | | 87 | 0.030 | 0.075 | 0.069 | 0.043 | 0.037 | 80 |
| 27/03/2020 | 21:00:00 | 23495.07 | 4465726 | 1.998 | | 0.146 | 4456155 | 63 | | 88 | 0.030 | 0.075 | 0.071 | 0.045 | 0.037 | 82 |
| 27/03/2020 | 22:00:00 | 23496.07 | 4465789 | 2.002 | | 0.146 | 4456218 | 63 | | 88 | 0.030 | 0.075 | 0.071 | 0.045 | 0.037 | 82 |
| 27/03/2020 | 23:00:00 | 23497.07 | 4465852 | 1.998 | | 0.144 | 4456281 | 63 | | 87 | 0.030 | 0.075 | 0.069 | 0.043 | 0.037 | 80 |
| 28/03/2020 | 00:00:00 | 23498.07 | 4465915 | 2.003 | | 0.146 | 4456343 | 62 | | 88 | 0.030 | 0.075 | 0.071 | 0.045 | 0.037 | 82 |
| 28/03/2020 | 01:00:00 | 23499.07 | 4465977 | 2 | | 0.144 | 4456405 | 62 | | 87 | 0.030 | 0.075 | 0.069 | 0.043 | 0.037 | 80 |
| 28/03/2020 | 02:00:00 | 23500.07 | 4466039 | 2.001 | | 0.144 | 4456467 | 62 | | 87 | 0.030 | 0.075 | 0.069 | 0.043 | 0.037 | 80 |
| 28/03/2020 | 03:00:00 | 23501.07 | 4466101 | 2.005 | | 0.144 | 4456529 | 62 | | 87 | 0.030 | 0.075 | 0.069 | 0.043 | 0.037 | 80 |
| 28/03/2020 | 04:00:00 | 23502.07 | 4466162 | 1.998 | | 0.143 | 4456590 | 61 | | 86 | 0.030 | 0.075 | 0.068 | 0.042 | 0.037 | 79 |
| 28/03/2020 | 05:00:00 | 23503.07 | 4466223 | 2 | | 0.144 | 4456651 | 61 | | 87 | 0.030 | 0.075 | 0.069 | 0.043 | 0.037 | 80 |
| 28/03/2020 | 06:00:00 | 23504.07 | 4466284 | 2 | | 0.143 | 4456711 | 60 | | 86 | 0.030 | 0.075 | 0.068 | 0.042 | 0.037 | 79 |
| 28/03/2020 | 07:00:00 | 23505.07 | 4466345 | 2 | | 0.143 | 4456772 | 61 | | 86 | 0.030 | 0.075 | 0.068 | 0.042 | 0.037 | 79 |
| 28/03/2020 | 08:00:00 | 23506.07 | 4466405 | 1.996 | | 0.143 | 4456832 | 60 | | 86 | 0.030 | 0.075 | 0.068 | 0.042 | 0.037 | 79 |
| 28/03/2020 | 09:00:00 | 23507.07 | 4466465 | 2.002 | | 0.143 | 4456892 | 60 | | 86 | 0.030 | 0.075 | 0.068 | 0.042 | 0.037 | 79 |
| 28/03/2020 | 10:00:00 | 23508.07 | 4466526 | 2.002 | | 0.144 | 4456953 | 61 | | 87 | 0.030 | 0.075 | 0.069 | 0.043 | 0.037 | 80 |
| 28/03/2020 | 11:00:00 | 23509.07 | 4466587 | 1.998 | | 0.143 | 4457013 | 60 | | 86 | 0.030 | 0.075 | 0.068 | 0.042 | 0.037 | 79 |
| 28/03/2020 | 12:00:00 | 23510.07 | 4466647 | 2.001 | | 0.143 | 4457073 | 60 | | 86 | 0.030 | 0.075 | 0.068 | 0.042 | 0.037 | 79 |
| 28/03/2020 | 13:00:00 | 23511.07 | 4466706 | 2.003 | | 0.142 | 4457133 | 60 | | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 28/03/2020 | 14:00:00 | 23512.07 | 4466764 | 2 | | 0.142 | 4457191 | 58 | | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 28/03/2020 | 15:00:00 | 23513.07 | 4466822 | 1.996 | | 0.142 | 4457248 | 57 | | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 28/03/2020 | 16:00:00 | 23514.07 | 4466880 | 1.997 | | 0.141 | 4457306 | 58 | | 85 | 0.030 | 0.075 | 0.066 | 0.040 | 0.037 | 77 |
| 28/03/2020 | 17:00:00 | 23515.07 | 4466938 | 2.003 | | 0.142 | 4457363 | 57 | | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 28/03/2020 | 18:00:00 | 23516.07 | 4466995 | 2.005 | | 0.142 | 4457421 | 58 | | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.037 | 78 |
| 28/03/2020 | 19:00:00 | 23517.07 | 4467052 | 1.998 | | 0.142</ | | | | | | | | | | |

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|------------|----------|----------|---------|-------|-------|---------|----|----|-------|-------|-------|-------|-------|----|
| 29/03/2020 | 14:00:00 | 23536.07 | 4468079 | 2.001 | 0.139 | 4458502 | 53 | 84 | 0.030 | 0.075 | 0.064 | 0.038 | 0.037 | 75 |
| 29/03/2020 | 15:00:00 | 23537.07 | 4468132 | 2 | 0.139 | 4458554 | 52 | 84 | 0.030 | 0.075 | 0.064 | 0.038 | 0.037 | 75 |
| 29/03/2020 | 16:00:00 | 23538.07 | 4468184 | 1.999 | 0.138 | 4458606 | 52 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 29/03/2020 | 17:00:00 | 23539.07 | 4468235 | 2.003 | 0.138 | 4458658 | 52 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 29/03/2020 | 18:00:00 | 23540.07 | 4468286 | 1.997 | 0.138 | 4458708 | 50 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 29/03/2020 | 19:00:00 | 23541.07 | 4468337 | 2 | 0.138 | 4458759 | 51 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 29/03/2020 | 20:00:00 | 23542.07 | 4468387 | 2.001 | 0.138 | 4458809 | 50 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 29/03/2020 | 21:00:00 | 23543.07 | 4468437 | 1.996 | 0.138 | 4458859 | 50 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 29/03/2020 | 22:00:00 | 23544.07 | 4468487 | 1.999 | 0.138 | 4458909 | 50 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 29/03/2020 | 23:00:00 | 23545.07 | 4468537 | 2.001 | 0.138 | 4458959 | 50 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 30/03/2020 | 00:00:00 | 23546.07 | 4468588 | 2.003 | 0.138 | 4459009 | 50 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 30/03/2020 | 01:00:00 | 23547.07 | 4468637 | 2 | 0.136 | 4459059 | 50 | 83 | 0.030 | 0.075 | 0.061 | 0.036 | 0.036 | 72 |
| 30/03/2020 | 02:00:00 | 23548.07 | 4468687 | 2.003 | 0.138 | 4459109 | 50 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.036 | 74 |
| 30/03/2020 | 03:00:00 | 23549.07 | 4468737 | 2.002 | 0.136 | 4459158 | 49 | 83 | 0.030 | 0.075 | 0.061 | 0.036 | 0.036 | 72 |
| 30/03/2020 | 04:00:00 | 23550.07 | 4468786 | 2.002 | 0.137 | 4459208 | 50 | 83 | 0.030 | 0.075 | 0.062 | 0.036 | 0.036 | 73 |
| 30/03/2020 | 05:00:00 | 23551.07 | 4468836 | 1.998 | 0.136 | 4459257 | 49 | 83 | 0.030 | 0.075 | 0.061 | 0.036 | 0.036 | 72 |
| 30/03/2020 | 06:00:00 | 23552.07 | 4468885 | 2.001 | 0.136 | 4459306 | 49 | 83 | 0.030 | 0.075 | 0.061 | 0.036 | 0.036 | 72 |
| 30/03/2020 | 07:00:00 | 23553.07 | 4468934 | 1.998 | 0.136 | 4459355 | 49 | 83 | 0.030 | 0.075 | 0.061 | 0.036 | 0.036 | 72 |
| 30/03/2020 | 08:00:00 | 23554.07 | 4468982 | 2.002 | 0.136 | 4459403 | 48 | 83 | 0.030 | 0.075 | 0.061 | 0.036 | 0.036 | 72 |
| 30/03/2020 | 09:00:00 | 23555.07 | 4469031 | 2.001 | 0.135 | 4459452 | 49 | 82 | 0.030 | 0.075 | 0.060 | 0.035 | 0.036 | 71 |
| 30/03/2020 | 10:00:00 | 23556.07 | 4469080 | 1.997 | 0.135 | 4459500 | 48 | 82 | 0.030 | 0.075 | 0.060 | 0.035 | 0.036 | 71 |
| 30/03/2020 | 11:00:00 | 23557.07 | 4469128 | 2.001 | 0.135 | 4459548 | 48 | 82 | 0.030 | 0.075 | 0.060 | 0.035 | 0.036 | 71 |
| 30/03/2020 | 12:00:00 | 23558.07 | 4469175 | 2.003 | 0.135 | 4459596 | 48 | 82 | 0.030 | 0.075 | 0.060 | 0.035 | 0.036 | 71 |
| 30/03/2020 | 13:00:00 | 23559.07 | 4469223 | 2.002 | 0.135 | 4459643 | 47 | 82 | 0.030 | 0.075 | 0.060 | 0.035 | 0.036 | 71 |
| 30/03/2020 | 14:00:00 | 23560.07 | 4469270 | 2.002 | 0.134 | 4459690 | 47 | 82 | 0.030 | 0.075 | 0.059 | 0.034 | 0.036 | 70 |
| 30/03/2020 | 15:00:00 | 23561.07 | 4469316 | 1.998 | 0.134 | 4459736 | 46 | 82 | 0.030 | 0.075 | 0.059 | 0.034 | 0.036 | 70 |
| 30/03/2020 | 16:00:00 | 23562.07 | 4469363 | 1.997 | 0.134 | 4459783 | 47 | 82 | 0.030 | 0.075 | 0.059 | 0.034 | 0.036 | 70 |
| 30/03/2020 | 17:00:00 | 23563.07 | 4469409 | 2 | 0.134 | 4459829 | 46 | 82 | 0.030 | 0.075 | 0.059 | 0.034 | 0.036 | 70 |
| 30/03/2020 | 18:00:00 | 23564.07 | 4469455 | 1.998 | 0.134 | 4459874 | 45 | 82 | 0.030 | 0.075 | 0.059 | 0.034 | 0.036 | 70 |
| 30/03/2020 | 19:00:00 | 23565.07 | 4469501 | 2.002 | 0.134 | 4459920 | 46 | 82 | 0.030 | 0.075 | 0.059 | 0.034 | 0.036 | 70 |
| 30/03/2020 | 20:00:00 | 23566.07 | 4469546 | 1.998 | 0.134 | 4459966 | 46 | 82 | 0.030 | 0.075 | 0.059 | 0.034 | 0.036 | 70 |
| 30/03/2020 | 21:00:00 | 23567.07 | 4469592 | 2.003 | 0.134 | 4460011 | 45 | 82 | 0.030 | 0.075 | 0.059 | 0.034 | 0.036 | 70 |
| 30/03/2020 | 22:00:00 | 23568.07 | 4469637 | 2 | 0.134 | 4460057 | 46 | 82 | 0.030 | 0.075 | 0.059 | 0.034 | 0.036 | 70 |
| 30/03/2020 | 23:00:00 | 23569.07 | 4469683 | 2 | 0.133 | 4460102 | 45 | 81 | 0.030 | 0.075 | 0.058 | 0.033 | 0.036 | 69 |
| 31/03/2020 | 00:00:00 | 23570.07 | 4469728 | 1.998 | 0.133 | 4460147 | 45 | 81 | 0.030 | 0.075 | 0.058 | 0.033 | 0.036 | 69 |
| 31/03/2020 | 01:00:00 | 23571.07 | 4469773 | 1.998 | 0.134 | 4460192 | 45 | 82 | 0.030 | 0.075 | 0.059 | 0.034 | 0.036 | 70 |
| 31/03/2020 | 02:00:00 | 23572.07 | 4469818 | 1.997 | 0.133 | 4460237 | 45 | 81 | 0.030 | 0.075 | 0.058 | 0.033 | 0.036 | 69 |
| 31/03/2020 | 03:00:00 | 23573.07 | 4469863 | 2.002 | 0.133 | 4460281 | 44 | 81 | 0.030 | 0.075 | 0.058 | 0.033 | 0.036 | 69 |
| 31/03/2020 | 04:00:00 | 23574.07 | 4469907 | 2.003 | 0.134 | 4460326 | 45 | 82 | 0.030 | 0.075 | 0.059 | 0.034 | 0.036 | 70 |
| 31/03/2020 | 05:00:00 | 23575.07 | 4469951 | 2.003 | 0.133 | 4460370 | 44 | 81 | 0.030 | 0.075 | 0.058 | 0.033 | 0.036 | 69 |
| 31/03/2020 | 06:00:00 | 23576.07 | 4469995 | 1.996 | 0.133 | 4460414 | 44 | 81 | 0.030 | 0.075 | 0.058 | 0.033 | 0.036 | 69 |
| 31/03/2020 | 07:00:00 | 23577.07 | 4470039 | 1.998 | 0.133 | 4460458 | 44 | 81 | 0.030 | 0.075 | 0.058 | 0.033 | 0.036 | 69 |
| 31/03/2020 | 08:00:00 | 23578.07 | 4470083 | 1.998 | 0.133 | 4460501 | 43 | 81 | 0.030 | 0.075 | 0.058 | 0.033 | 0.036 | 69 |
| 31/03/2020 | 09:00:00 | 23579.07 | 4470127 | 2 | 0.133 | 4460545 | 44 | 81 | 0.030 | 0.075 | 0.058 | 0.033 | 0.036 | 69 |
| 31/03/2020 | 10:00:00 | 23580.07 | 4470171 | 2.002 | 0.133 | 4460589 | 44 | 81 | 0.030 | 0.075 | 0.058 | 0.033 | 0.036 | 69 |
| 31/03/2020 | 11:00:00 | 23581.07 | 4470215 | 2.002 | 0.133 | 4460633 | 44 | 81 | 0.030 | 0.075 | 0.058 | 0.033 | 0.036 | 69 |
| 31/03/2020 | 12:00:00 | 23582.07 | 4470258 | 2.001 | 0.132 | 4460676 | 43 | 81 | 0.030 | 0.075 | 0.057 | 0.032 | 0.036 | 68 |
| 31/03/2020 | 13:00:00 | 23583.08 | 4470301 | 1.997 | 0.132 | 4460719 | 43 | 81 | 0.030 | 0.075 | 0.057 | 0.032 | 0.036 | 68 |
| 31/03/2020 | 14:00:00 | 23584.08 | 4470344 | 2 | 0.132 | 4460761 | 42 | 81 | 0.030 | 0.075 | 0.057 | 0.032 | 0.036 | 68 |
| 31/03/2020 | 15:00:00 | 23585.08 | 4470386 | 2 | 0.131 | 4460803 | 42 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 31/03/2020 | 16:00:00 | 23586.08 | 4470427 | 2.003 | 0.132 | 4460845 | 42 | 81 | 0.030 | 0.075 | 0.057 | 0.032 | 0.036 | 68 |
| 31/03/2020 | 17:00:00 | 23587.08 | 4470469 | 2 | 0.132 | 4460886 | 41 | 81 | 0.030 | 0.075 | 0.057 | 0.032 | 0.036 | 68 |
| 31/03/2020 | 18:00:00 | 23588.08 | 4470511 | 2.003 | 0.131 | 4460928 | 42 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 31/03/2020 | 19:00:00 | 23589.08 | 4470552 | 2.002 | 0.132 | 4460969 | 41 | 81 | 0.030 | 0.075 | 0.057 | 0.032 | 0.036 | 68 |
| 31/03/2020 | 20:00:00 | 23590.08 | 4470594 | 2.002 | 0.131 | 4461011 | 42 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 31/03/2020 | 21:00:00 | 23591.08 | 4470635 | 1.998 | 0.132 | 4461052 | 41 | 81 | 0.030 | 0.075 | 0.057 | 0.032 | 0.036 | 68 |
| 31/03/2020 | 22:00:00 | 23592.08 | 4470677 | 2.002 | 0.131 | 4461094 | 42 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 31/03/2020 | 23:00:00 | 23593.08 | 4470718 | 2.002 | 0.132 | 4461135 | 41 | 81 | 0.030 | 0.075 | 0.057 | 0.032 | 0.036 | 68 |
| 01/04/2020 | 00:00:00 | 23594.08 | 4470760 | 2 | 0.132 | 4461176 | 41 | 81 | 0.030 | 0.075 | 0.057 | 0.032 | 0.036 | 68 |
| 01/04/2020 | 01:00:00 | 23595.08 | 4470801 | 2 | 0.131 | 4461217 | 41 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 01/04/2020 | 02:00:00 | 23596.08 | 4470842 | 2.003 | 0.131 | 4461258 | 41 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 01/04/2020 | 03:00:00 | 23597.08 | 4470883 | 2 | 0.131 | 4461299 | 41 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 01/04/2020 | 04:00:00 | 23598.08 | 4470924 | 2.002 | 0.131 | 4461340 | 41 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 01/04/2020 | 05:00:00 | 23599.08 | 4470964 | 2.001 | 0.131 | 4461380 | 40 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 01/04/2020 | 06:00:00 | 23600.08 | 4471005 | 2 | 0.131 | 4461421 | 41 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 01/04/2020 | 07:00:00 | 23601.08 | 4471045 | 2.001 | 0.13 | 4461461 | 40 | 80 | 0.030 | 0.075 | 0.055 | 0.030 | 0.035 | 66 |
| 01/04/2020 | 08:00:00 | 23602.08 | 4471086 | 2 | 0.131 | 4461501 | 40 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.035 | 67 |
| 01/04/2020 | 09:00:00 | 23603.08 | 4471126 | 1.996 | 0.129 | 4461541 | 40 | 79 | 0.030 | 0.075 | 0.054 | 0.030 | 0.035 | 65 |
| 01/04/2020 | 10:00:00 | 23604.08 | 4471166 | 2.001 | 0.129 | 4461581 | 40 | 79 | 0.030 | 0.075 | 0.054 | 0.030 | 0.035 | 65 |
| 01/04/2020 | 11:00:00 | 23605.08 | 4471205 | 2 | 0.129 | 4461621 | 40 | 79 | 0.030 | 0.075 | 0.054 | 0.030 | 0.035 | 65 |
| 01/04/2020 | 12:00:00 | 23606.08 | 4471245 | 2 | 0.13 | 4461660 | 39 | 80 | 0.030 | 0.075 | 0.055 | 0.030 | 0.035 | 66 |
| 01/04/2020 | 13:00:00 | 23606.46 | 4471260 | 2.397 | 0.128 | 4461675 | 15 | 79 | 0.030 | 0.075 | 0.053 | 0.029 | 0.035 | 64 |
| 01/04/2020 | 14:00:00 | 23606.46 | 4471260 | 2.395 | 0.128 | 4461675 | 0 | 79 | 0.030 | 0.075 | 0.053 | 0.029 | 0.035 | 64 |
| 01/04/2020 | 15:00:00 | 23606.46 | 4471260 | 2.397 | 0.127 | 4461675 | 0 | 78 | 0.030 | 0.075 | 0.052 | 0.028 | 0.035 | 63 |
| 01/04/2020 | 16:00:00 | 23606.46 | 4471260 | 2.396 | 0.127 | 4461675 | 0 | 78 | 0.030 | 0.075 | 0.052 | 0.028 | 0.035 | 63 |
| 01/04/2020 | 17:00:00 | 23606.46 | 4471260 | 2.394 | 0.128 | 4461675 | 0 | 79 | 0.030 | 0.075 | 0.053 | 0.029 | 0.035 | 64 |
| 01/04/2020 | 18:00:00 | 23606.46 | 4471260 | 2.395 | 0.128 | 4461675 | 0 | 79 | 0.030 | 0.075 | 0.053 | 0.029 | 0.035 | 64 |
| 01/04/2020 | 19:00 | | | | | | | | | | | | | |

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|------------|----------|----------|---------|-------|-------|---------|-----|-----|-------|-------|-------|-------|-------|------|
| 22/05/2020 | 06:00:00 | 23639.85 | 4473180 | 2 | 0.146 | 4463592 | 61 | 88 | 0.030 | 0.075 | 0.071 | 0.045 | 0.026 | 71 |
| 22/05/2020 | 07:00:00 | 23640.85 | 4473235 | 1.996 | 0.132 | 4463646 | 54 | 81 | 0.030 | 0.075 | 0.057 | 0.032 | 0.023 | 56 |
| 22/05/2020 | 08:00:00 | 23641.28 | 4473253 | 2.498 | 0.122 | 4463664 | 18 | 76 | 0.030 | 0.075 | 0.047 | 0.024 | 0.021 | 45 |
| 22/05/2020 | 09:00:00 | 23641.28 | 4473253 | 2.492 | 0.118 | 4463664 | 0 | 75 | 0.030 | 0.075 | 0.043 | 0.021 | 0.020 | 41 |
| 22/05/2020 | 10:00:00 | 23641.28 | 4473253 | 2.489 | 0.114 | 4463664 | 0 | 73 | 0.030 | 0.075 | 0.039 | 0.018 | 0.019 | 38 |
| 22/05/2020 | 11:00:00 | 23641.28 | 4473253 | 2.487 | 0.111 | 4463664 | 0 | 72 | 0.030 | 0.075 | 0.036 | 0.016 | 0.019 | 35 |
| 22/05/2020 | 12:00:00 | 23641.28 | 4473253 | 2.485 | 0.109 | 4463664 | 0 | 71 | 0.030 | 0.075 | 0.034 | 0.015 | 0.018 | 33 |
| 22/05/2020 | 13:00:00 | 23641.28 | 4473253 | 2.483 | 0.107 | 4463664 | 0 | 71 | 0.030 | 0.075 | 0.032 | 0.014 | 0.018 | 31 |
| 22/05/2020 | 14:00:00 | 23641.28 | 4473253 | 2.482 | 0.106 | 4463664 | 0 | 71 | 0.030 | 0.075 | 0.031 | 0.013 | 0.017 | 30 |
| 22/05/2020 | 15:00:00 | 23641.28 | 4473253 | 2.481 | 0.103 | 4463664 | 0 | 70 | 0.030 | 0.075 | 0.028 | 0.011 | 0.016 | 27 |
| 22/05/2020 | 16:00:00 | 23641.28 | 4473253 | 2.48 | 0.101 | 4463664 | 0 | 69 | 0.030 | 0.075 | 0.026 | 0.010 | 0.016 | 26 |
| 22/05/2020 | 17:00:00 | 23641.28 | 4473253 | 2.478 | 0.102 | 4463664 | 0 | 69 | 0.030 | 0.075 | 0.027 | 0.010 | 0.016 | 27 |
| 22/05/2020 | 18:00:00 | 23641.28 | 4473253 | 2.478 | 0.101 | 4463664 | 0 | 69 | 0.030 | 0.075 | 0.026 | 0.010 | 0.016 | 26 |
| 22/05/2020 | 19:00:00 | 23641.28 | 4473253 | 2.48 | 0.1 | 4463664 | 0 | 69 | 0.030 | 0.075 | 0.025 | 0.009 | 0.015 | 25 |
| 22/05/2020 | 20:00:00 | 23641.28 | 4473253 | 2.476 | 0.1 | 4463664 | 0 | 69 | 0.030 | 0.075 | 0.025 | 0.009 | 0.015 | 25 |
| 22/05/2020 | 21:00:00 | 23641.28 | 4473253 | 2.476 | 0.098 | 4463664 | 0 | 68 | 0.030 | 0.075 | 0.023 | 0.008 | 0.015 | 23 |
| 22/05/2020 | 22:00:00 | 23641.28 | 4473253 | 2.484 | 0.103 | 4463664 | 0 | 70 | 0.030 | 0.075 | 0.028 | 0.011 | 0.016 | 27 |
| 22/05/2020 | 23:00:00 | 23641.28 | 4473253 | 2.486 | 0.099 | 4463664 | 0 | 69 | 0.030 | 0.075 | 0.024 | 0.009 | 0.015 | 24 |
| 23/05/2020 | 00:00:00 | 23641.28 | 4473253 | 2.484 | 0.099 | 4463664 | 0 | 69 | 0.030 | 0.075 | 0.024 | 0.009 | 0.015 | 24 |
| 23/05/2020 | 01:00:00 | 23641.28 | 4473253 | 2.482 | 0.101 | 4463664 | 0 | 69 | 0.030 | 0.075 | 0.026 | 0.010 | 0.016 | 26 |
| 23/05/2020 | 02:00:00 | 23641.28 | 4473253 | 2.484 | 0.099 | 4463664 | 0 | 69 | 0.030 | 0.075 | 0.024 | 0.009 | 0.015 | 24 |
| 23/05/2020 | 03:00:00 | 23641.28 | 4473253 | 2.481 | 0.099 | 4463664 | 0 | 69 | 0.030 | 0.075 | 0.024 | 0.009 | 0.015 | 24 |
| 23/05/2020 | 04:00:00 | 23641.28 | 4473253 | 2.478 | 0.097 | 4463664 | 0 | 68 | 0.030 | 0.075 | 0.022 | 0.008 | 0.015 | 22 |
| 23/05/2020 | 05:00:00 | 23641.28 | 4473253 | 2.478 | 0.098 | 4463664 | 0 | 68 | 0.030 | 0.075 | 0.023 | 0.008 | 0.015 | 23 |
| 23/05/2020 | 06:00:00 | 23641.28 | 4473253 | 2.482 | 0.099 | 4463664 | 0 | 69 | 0.030 | 0.075 | 0.024 | 0.009 | 0.015 | 24 |
| 23/05/2020 | 07:00:00 | 23641.28 | 4473253 | 2.485 | 0.1 | 4463664 | 0 | 69 | 0.030 | 0.075 | 0.025 | 0.009 | 0.015 | 25 |
| 23/05/2020 | 08:00:00 | 23641.28 | 4473253 | 2.484 | 0.1 | 4463664 | 0 | 69 | 0.030 | 0.075 | 0.025 | 0.009 | 0.015 | 25 |
| 23/05/2020 | 09:00:00 | 23641.28 | 4473253 | 2.494 | 0.104 | 4463664 | 0 | 70 | 0.030 | 0.075 | 0.029 | 0.012 | 0.017 | 28 |
| 23/05/2020 | 10:00:00 | 23641.28 | 4473253 | 2.511 | 0.114 | 4463664 | 0 | 73 | 0.030 | 0.075 | 0.039 | 0.018 | 0.019 | 38 |
| 23/05/2020 | 11:00:00 | 23641.28 | 4473253 | 2.538 | 0.139 | 4463664 | 0 | 84 | 0.030 | 0.075 | 0.064 | 0.038 | 0.025 | 63 |
| 23/05/2020 | 12:00:00 | 23642.28 | 4473355 | 2.011 | 0.184 | 4463766 | 102 | 114 | 0.030 | 0.075 | 0.109 | 0.085 | 0.032 | 117 |
| 23/05/2020 | 13:00:00 | 23643.28 | 4473531 | 2.005 | 0.21 | 4463942 | 176 | 137 | 0.030 | 0.075 | 0.135 | 0.117 | 0.036 | 153 |
| 23/05/2020 | 14:00:00 | 23644.28 | 4473747 | 2.001 | 0.216 | 4464157 | 215 | 143 | 0.030 | 0.075 | 0.141 | 0.125 | 0.037 | 162 |
| 23/05/2020 | 15:00:00 | 23645.28 | 4473946 | 1.989 | 0.199 | 4464355 | 198 | 127 | 0.030 | 0.075 | 0.124 | 0.103 | 0.035 | 138 |
| 23/05/2020 | 16:00:00 | 23646.28 | 4474104 | 2 | 0.182 | 4464513 | 158 | 112 | 0.030 | 0.075 | 0.107 | 0.083 | 0.032 | 115 |
| 23/05/2020 | 17:00:00 | 23647.28 | 4474230 | 1.99 | 0.167 | 4464638 | 125 | 101 | 0.030 | 0.075 | 0.092 | 0.066 | 0.030 | 96 |
| 23/05/2020 | 18:00:00 | 23648.28 | 4474332 | 1.998 | 0.157 | 4464741 | 103 | 94 | 0.030 | 0.075 | 0.082 | 0.055 | 0.028 | 84 |
| 23/05/2020 | 19:00:00 | 23649.28 | 4474417 | 1.996 | 0.151 | 4464825 | 84 | 91 | 0.030 | 0.075 | 0.076 | 0.049 | 0.027 | 77 |
| 23/05/2020 | 20:00:00 | 23650.28 | 4474487 | 2.001 | 0.142 | 4464895 | 70 | 86 | 0.030 | 0.075 | 0.067 | 0.041 | 0.025 | 66 |
| 23/05/2020 | 21:00:00 | 23651.28 | 4474548 | 1.997 | 0.137 | 4464956 | 61 | 83 | 0.030 | 0.075 | 0.062 | 0.036 | 0.024 | 61 |
| 23/05/2020 | 22:00:00 | 23652.28 | 4474600 | 1.999 | 0.133 | 4465008 | 52 | 81 | 0.030 | 0.075 | 0.058 | 0.033 | 0.024 | 57 |
| 23/05/2020 | 23:00:00 | 23653.28 | 4474647 | 2.003 | 0.13 | 4465054 | 46 | 80 | 0.030 | 0.075 | 0.055 | 0.030 | 0.023 | 53 |
| 24/05/2020 | 00:00:00 | 23654.28 | 4474689 | 1.999 | 0.128 | 4465096 | 42 | 79 | 0.030 | 0.075 | 0.053 | 0.029 | 0.023 | 51 |
| 24/05/2020 | 01:00:00 | 23654.72 | 4474706 | 2.461 | 0.127 | 4465114 | 18 | 78 | 0.030 | 0.075 | 0.052 | 0.028 | 0.022 | 50 |
| 24/05/2020 | 02:00:00 | 23654.72 | 4474706 | 2.469 | 0.13 | 4465114 | 0 | 80 | 0.030 | 0.075 | 0.055 | 0.030 | 0.023 | 53 |
| 24/05/2020 | 03:00:00 | 23654.72 | 4474706 | 2.475 | 0.134 | 4465114 | 0 | 82 | 0.030 | 0.075 | 0.059 | 0.034 | 0.024 | 58 |
| 24/05/2020 | 04:00:00 | 23655.38 | 4474740 | 2.002 | 0.137 | 4465148 | 34 | 83 | 0.030 | 0.075 | 0.062 | 0.036 | 0.024 | 61 |
| 24/05/2020 | 05:00:00 | 23656.38 | 4474801 | 2.002 | 0.145 | 4465208 | 60 | 87 | 0.030 | 0.075 | 0.070 | 0.044 | 0.026 | 70 |
| 24/05/2020 | 06:00:00 | 23657.38 | 4474876 | 2.005 | 0.154 | 4465283 | 75 | 93 | 0.030 | 0.075 | 0.079 | 0.052 | 0.028 | 80 |
| 24/05/2020 | 07:00:00 | 23658.38 | 4474974 | 2.002 | 0.169 | 4465381 | 98 | 103 | 0.030 | 0.075 | 0.094 | 0.068 | 0.030 | 98 |
| 24/05/2020 | 08:00:00 | 23659.38 | 4475108 | 2.01 | 0.192 | 4465514 | 133 | 121 | 0.030 | 0.075 | 0.117 | 0.095 | 0.034 | 128 |
| 24/05/2020 | 09:00:00 | 23660.38 | 4475273 | 2 | 0.193 | 4465679 | 165 | 122 | 0.030 | 0.075 | 0.118 | 0.096 | 0.034 | 129 |
| 24/05/2020 | 10:00:00 | 23661.38 | 4475428 | 2.006 | 0.187 | 4465834 | 155 | 116 | 0.030 | 0.075 | 0.112 | 0.089 | 0.033 | 121 |
| 24/05/2020 | 11:00:00 | 23662.38 | 4475572 | 1.998 | 0.182 | 4465977 | 143 | 112 | 0.030 | 0.075 | 0.107 | 0.083 | 0.032 | 115 |
| 24/05/2020 | 12:00:00 | 23663.38 | 4475702 | 1.998 | 0.175 | 4466107 | 130 | 107 | 0.030 | 0.075 | 0.100 | 0.075 | 0.031 | 106 |
| 24/05/2020 | 13:00:00 | 23664.38 | 4475818 | 2 | 0.168 | 4466222 | 115 | 102 | 0.030 | 0.075 | 0.093 | 0.067 | 0.030 | 97 |
| 24/05/2020 | 14:00:00 | 23665.38 | 4475921 | 1.999 | 0.163 | 4466325 | 103 | 98 | 0.030 | 0.075 | 0.088 | 0.062 | 0.029 | 91 |
| 24/05/2020 | 15:00:00 | 23666.38 | 4476014 | 2.002 | 0.157 | 4466418 | 93 | 94 | 0.030 | 0.075 | 0.082 | 0.055 | 0.028 | 84 |
| 24/05/2020 | 16:00:00 | 23667.38 | 4476097 | 1.996 | 0.152 | 4466501 | 83 | 91 | 0.030 | 0.075 | 0.077 | 0.050 | 0.027 | 78 |
| 24/05/2020 | 17:00:00 | 23668.38 | 4476173 | 1.996 | 0.149 | 4466577 | 76 | 90 | 0.030 | 0.075 | 0.074 | 0.048 | 0.027 | 74 |
| 24/05/2020 | 18:00:00 | 23669.38 | 4476242 | 1.998 | 0.146 | 4466645 | 68 | 88 | 0.030 | 0.075 | 0.071 | 0.045 | 0.026 | 71 |
| 24/05/2020 | 19:00:00 | 23670.38 | 4476306 | 2 | 0.144 | 4466709 | 64 | 87 | 0.030 | 0.075 | 0.069 | 0.043 | 0.026 | 69 |
| 24/05/2020 | 20:00:00 | 23671.38 | 4476364 | 1.999 | 0.14 | 4466767 | 58 | 85 | 0.030 | 0.075 | 0.065 | 0.039 | 0.025 | 64 |
| 24/05/2020 | 21:00:00 | 23672.38 | 4476419 | 1.998 | 0.138 | 4466822 | 55 | 84 | 0.030 | 0.075 | 0.063 | 0.037 | 0.025 | 62 |
| 24/05/2020 | 22:00:00 | 23673.38 | 4476470 | 2 | 0.136 | 4466872 | 50 | 83 | 0.030 | 0.075 | 0.061 | 0.036 | 0.024 | 60 |
| 24/05/2020 | 23:00:00 | 23674.38 | 4476517 | 1.998 | 0.134 | 4466920 | 48 | 82 | 0.030 | 0.075 | 0.059 | 0.034 | 0.024 | 58 |
| 25/05/2020 | 00:00:00 | 23675.38 | 4476562 | 2 | 0.131 | 4466965 | 45 | 80 | 0.030 | 0.075 | 0.056 | 0.031 | 0.023 | 54 |
| 25/05/2020 | 01:00:00 | 23676.38 | 4476605 | 2.002 | 0.13 | 4467007 | 42 | 80 | 0.030 | 0.075 | 0.055 | 0.030 | 0.023 | 53 |
| 25/05/2020 | 02:00:00 | 23677.38 | 4476646 | 1.998 | 0.13 | 4467048 | 41 | 80 | 0.030 | 0.075 | 0.055 | 0.030 | 0.023 | 53 |
| 25/05/2020 | 03:00:00 | 23677.75 | 4476660 | 2.446 | 0.128 | 4467062 | 14 | 79 | 0.030 | 0.075 | 0.053 | 0.029 | 0.023 | 51 |
| 25/05/2020 | 04:00:00 | 23677.75 | 4476660 | 2.446 | 0.126 | 4467062 | 0 | 78 | 0.030 | 0.075 | 0.051 | 0.027 | 0.022 | 49 |
| 25/05/2020 | 05:00:00 | 23677.75 | 4476660 | 2.444 | 0.125 | 4467062 | 0 | 77 | 0.030 | 0.075 | 0.050 | 0.026 | 0.022 | 48 |
| 25/05/2020 | 06:00:00 | 23677.75 | 4476660 | 2.444 | 0.125 | 4467062 | 0 | 77 | 0.030 | 0.075 | 0.050 | 0.026 | 0.022 | 48 |
| 25/05/2020 | 07:00:00 | 23677.75 | 4476660 | 2.444 | 0.124 | 4467062 | 0 | 77 | 0.030 | 0.075 | 0.049 | 0.026 | 0.022 | 47 |
| 25/05/2020 | 08:00:00 | 23677.75 | 4476660 | 2.444 | 0.123 | 4467062 | 0 | 77 | 0.030 | 0.075 | 0.048 | 0.025 | 0.021 | 46 |
| 25/05/2020 | 09:00:00 | 23677.75 | 4476660 | 2.443 | 0.122 | 4467062 | 0 | 76 | 0.030 | 0.075 | 0.047 | 0.024 | 0.021 | 45 |
| 25/05/2020 | 10:00:00 | 23677.75 | 4476660 | 2.443 | 0.12 | 4467062 | 0 | 75 | 0.030 | 0.075 | 0.045 | 0.023 | 0.021 | 43</ |

| | | | | | | | | | | | | | | |
|------------|----------|----------|---------|-------|-------|---------|---|----|-------|-------|-------|-------|-------|----|
| 29/05/2020 | 22:00:00 | 23677.75 | 4476660 | 2.467 | 0.098 | 4467062 | 0 | 68 | 0.030 | 0.075 | 0.023 | 0.008 | 0.015 | 23 |
| 29/05/2020 | 23:00:00 | 23677.75 | 4476660 | 2.469 | 0.097 | 4467062 | 0 | 68 | | 0.075 | 0.022 | 0.008 | 0.015 | 22 |



Fisherplace Derogated Reach Photo study

Date of survey – 23rd April 2024 11.30am to 2.30pm

Turbine status – Running at 98kW, full output is approx. 395kW

Hands off flow – via sized notch 34lps



Outfall

Photo 1 – end of derogated reach this waterfall drops down into pool at outfall, powerhouse behind the photographer



Photo 2 intake and hof notch



Photo 3 intake from afar



Photo 4 down from intake along derogated reach

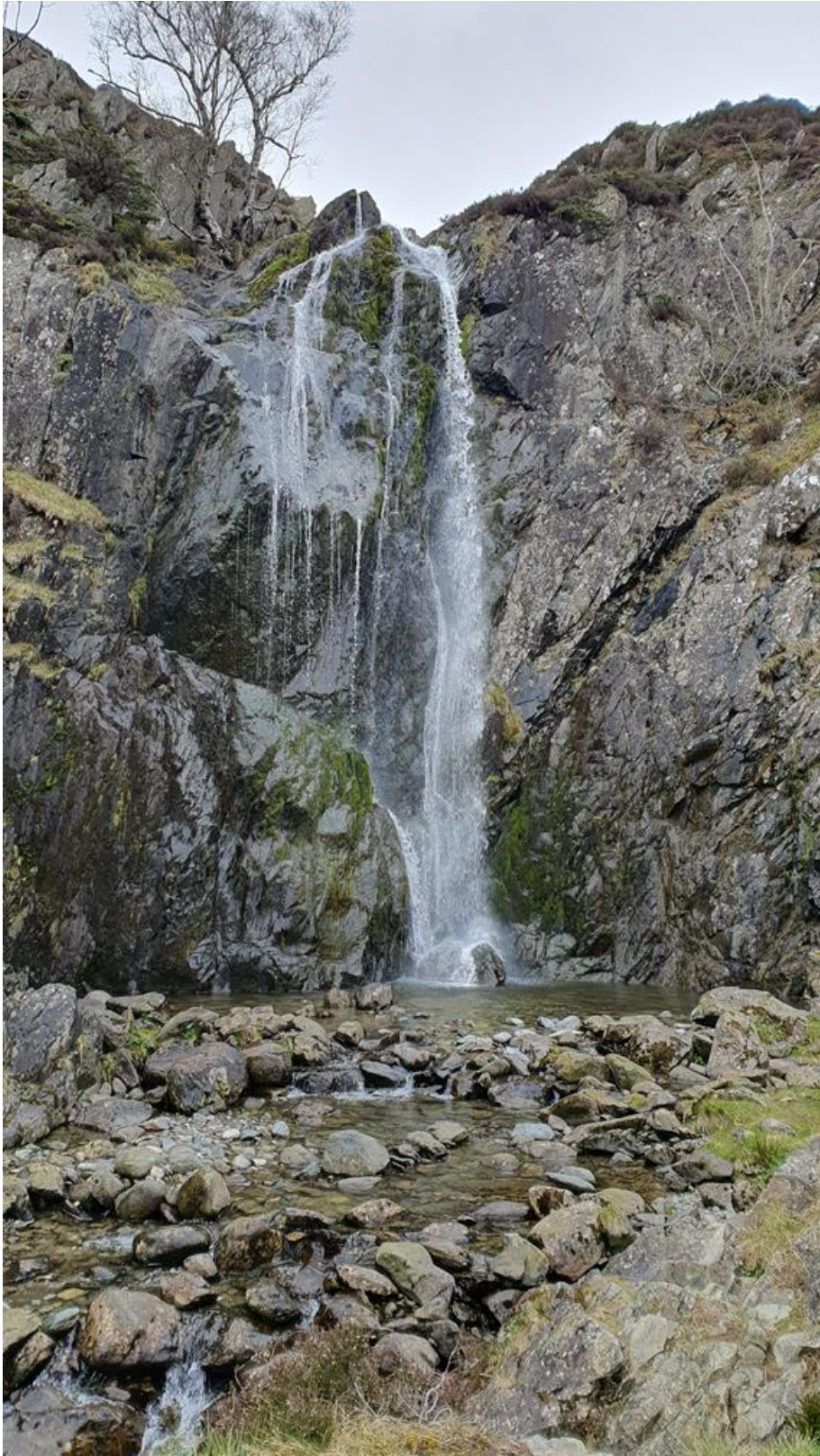


Photo 5 further down derogated reach



Figure 6 next waterfalls down



Figure 7



Figure 8 nearing bottom of derogated reach



Figure 9



Figure 10 Derogated reach up from outfall waterfall