



# QDS6

## Auxiliary Valves

Sequence Valve, 3-way



ENGINEERING YOUR SUCCESS.

Parker reserves the right to modify products without prior notice. Typical curves and diagrams are used in this catalogue. Even though the catalogue is revised and updated continuously, there is always the possibility of errors. For more detailed information about the products, please contact Parker Hannifin.



## **WARNING – USER RESPONSIBILITY**

**FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.**

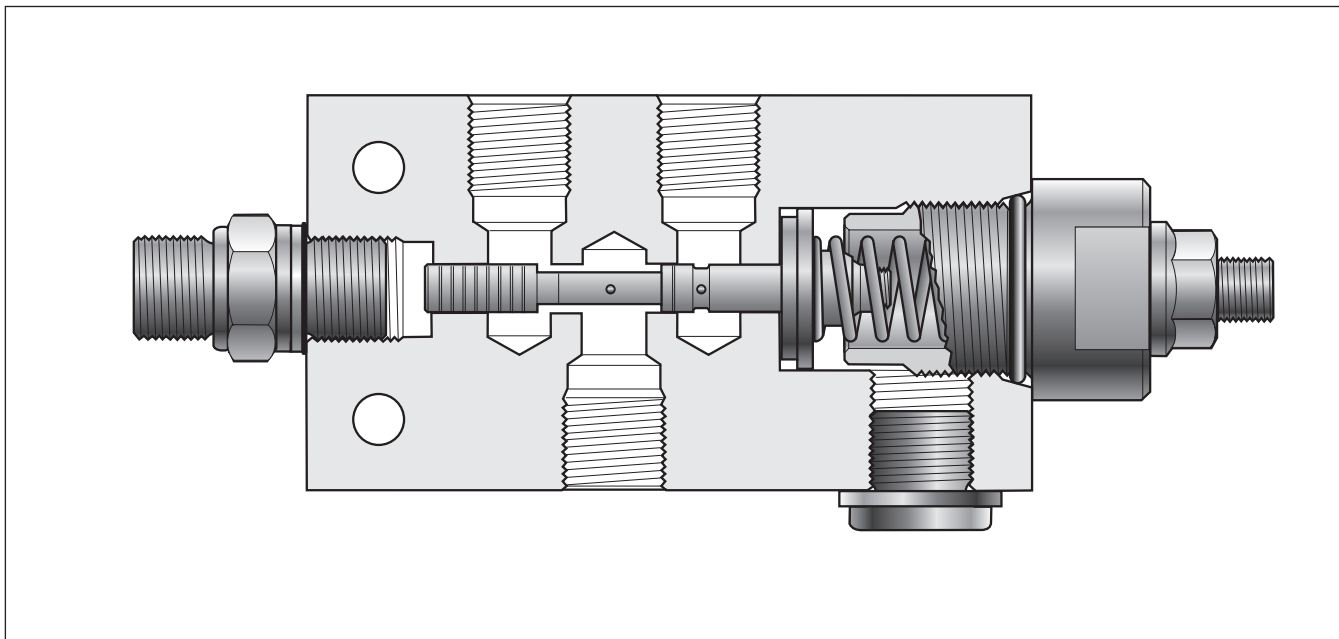
This document and other information from Parker-Hannifin Corporation, its subsidiaries and authorized distributors provide product or system options for further investigation by users having technical expertise.

The user, through its own analysis and testing, is solely responsible for making the final selection of the system and components and assuring that all performance, endurance, maintenance, safety and warning requirements of the application are met. The user must analyze all aspects of the application, follow applicable industry standards, and follow the information concerning the product in the current product catalog and in any other materials provided from Parker or its subsidiaries or authorized distributors.

To the extent that Parker or its subsidiaries or authorized distributors provide component or system options based upon data or specifications provided by the user, the user is responsible for determining that such data and specifications are suitable and sufficient for all applications and reasonably foreseeable uses of the components or systems.

## **Offer of Sale**

Please contact your Parker representation for a detailed "Offer of Sale".



### **Applications**

The QDS6 sequence valve is designed to open or close a hydraulic pilot signal (that comes from an external source) when it reaches a predetermined pressure level. Common applications of the valve are in pilot logic circuits and sequence-control sub-circuits. One example of use is as a means of load-moment limitation (overload protection) in the lifting functions of mobile cranes, in conjunction with hydraulic remote control. In such cases, the QDS6 is used to break the pilot signal between the control valve and the directional valve when the signal pressure reaches a predetermined value set on the QDS6.

### **Construction and function**

The QDS6 is a three-way, pilot-operated valve. Its directional function is normally open or normally closed.

The valve housing is manufactured from continuously-cast grey iron and contains a precision-ground spool and pilot section.

When the pilot signal exceeds the preset switching pressure, the spool changes position, thus blocking P and connecting S with T. Alternatively, T is blocked and S connected with P (see figure on page 4). The spool is positively overlapped, i.e. it closes the one connection before opening the other. The pilot section can be drained either internally or externally. Pilot sections with external drainage can be fed with an external pressure in the drainage connection to obtain a higher switching pressure than the one preset.

### **Advantages**

- Compact - easy to install.
- Several pressure ranges available - enables high setting precision.
- Easy to adjust pressure within specified pressure range - facilitates fine tuning.
- Can be factory-set and sealed - prevents unauthorized pressure changing.
- Withstands high pressure shocks in the tank connection - gives long service life in systems with high intermittent tank pressure.
- Simple design - gives great reliability.

### **Optional equipment**

Numerous other options are available for the QDS6. For further information, please contact your Parker representative.

- Hand wheel for easy changing of pressure setting.
- Flanged version of QDS6 for flanging directly to, e.g. a valve block.

**Technical Data**

**Auxiliary Valves**

**QDS6**

**Possible pressure setting ranges**

(applicable range will depend on pressure setting you specify)

**Switching pressure**

- 4-10 bar
- 11-20 bar
- 21-30 bar
- 31-45 bar
- 46-150 bar
- 150-250 bar

**Working pressure**

Max. 250 bar

**Tank pressure**

Max. 250 bar in pressure shocks.

**Recommended flow rate**

Max. 20 l/min

**Connections**

All connections are available in two versions:

- G1/4 (BSP pipe thread) for flat seal (type Tredo) according to ISO 228/1.
- 9/16-18 UNF-2B for O-ring seal according to SAE J1926/1.

**Leakage**

At pressure differential of 100 bar and viscosity of 30 mm<sup>2</sup>/s:

- P to S max. 12 cm<sup>3</sup>/min
- S to T max. 12 cm<sup>3</sup>/min
- P to X max. 5 cm<sup>3</sup>/min

**Weight**

Approx. 1.0 kg

**Hydraulic fluids**

Best performance is obtained using mineral-base oil of high quality and cleanliness in the hydraulic system. HLP hydraulic fluids (DIN 51524), automatic-gearbox oil type A and API CD engine oils can be used. If in doubt, please contact Parker for further information.

For best function, oil viscosity should be between 15 and 45 mm<sup>2</sup>/s (cSt).

**Filtration**

Filtration should be arranged so that Target Contamination Class 18/16/13 according to ISO 4406 is not exceeded.

**Temperature**

Temperature range, fluid:

-20 °C to +70 °C

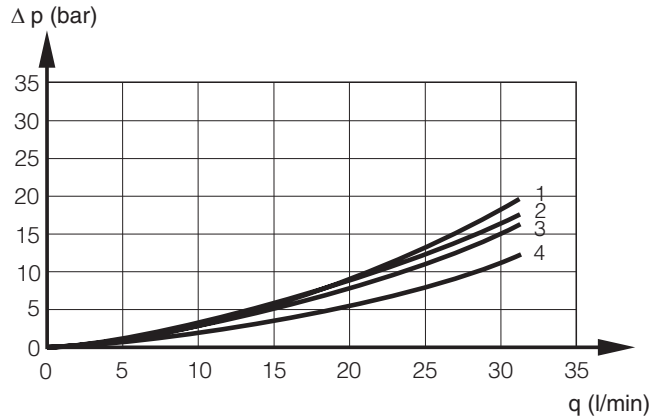
Temperature range, ambient:

-40 °C to +70 °C

Temperature-shock resistance: max. 100 °C/second

**General**

Technical data in this catalogue is applicable using mineral base oil according to DIN 51524 at a viscosity of 30 mm<sup>2</sup>/s and temperature of 50 °C.



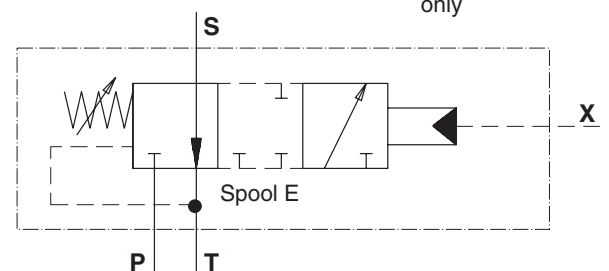
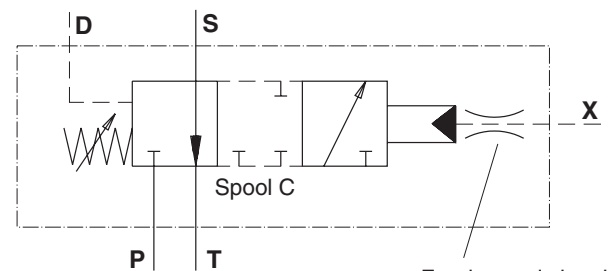
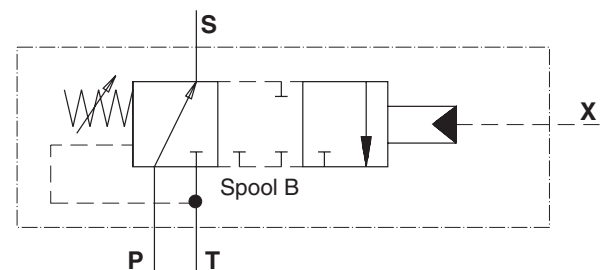
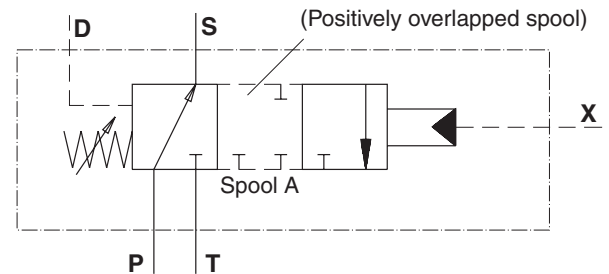
Pressure drop for QDS6

1 = Pressure drop P-S for spool A and B

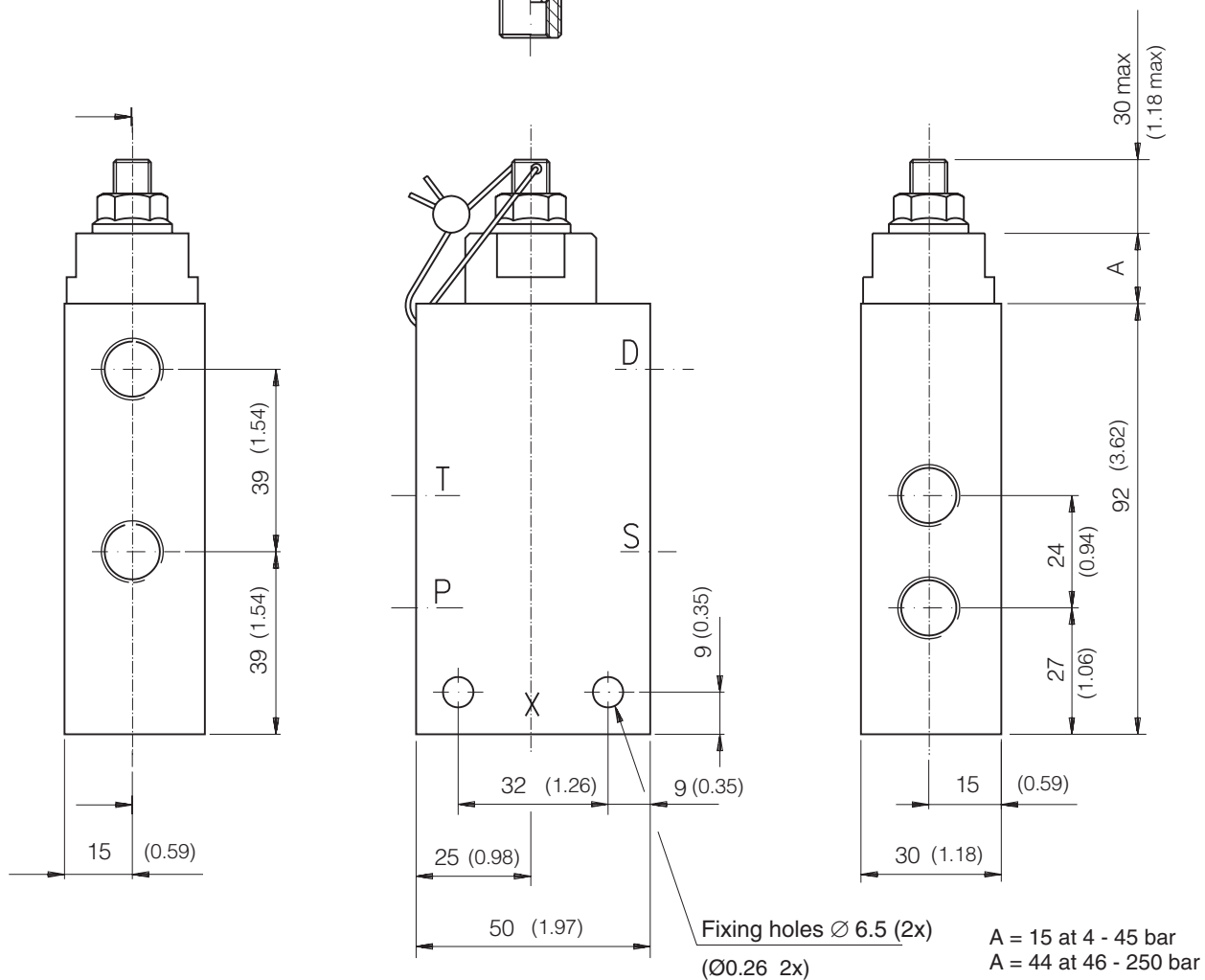
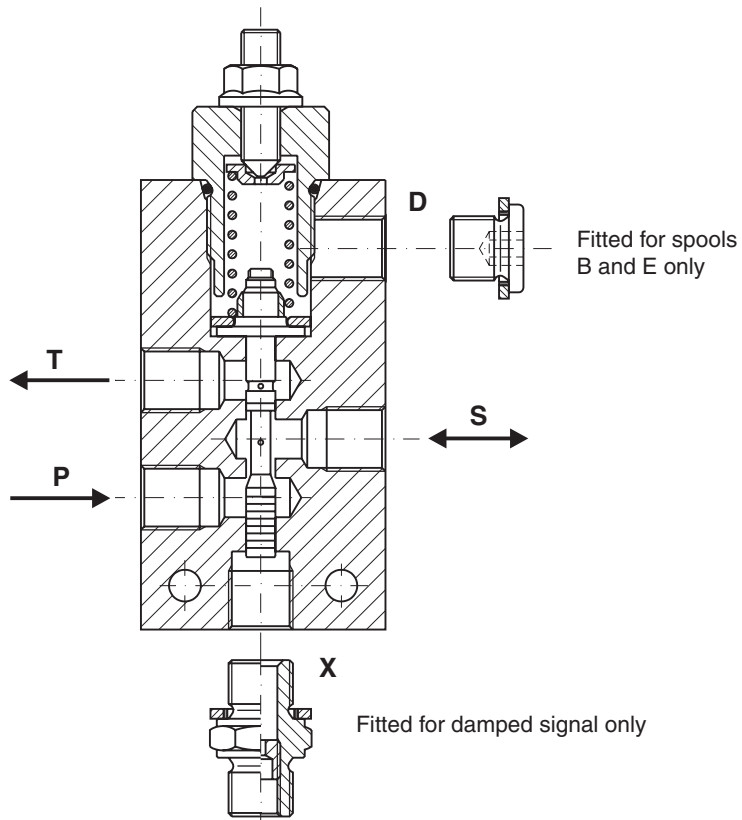
2 = Pressure drop S-T for spool C and E

3 = Pressure drop P-S for spool C and E

4 = Pressure drop S-T for spool A and B



Functional symbols for QDS6

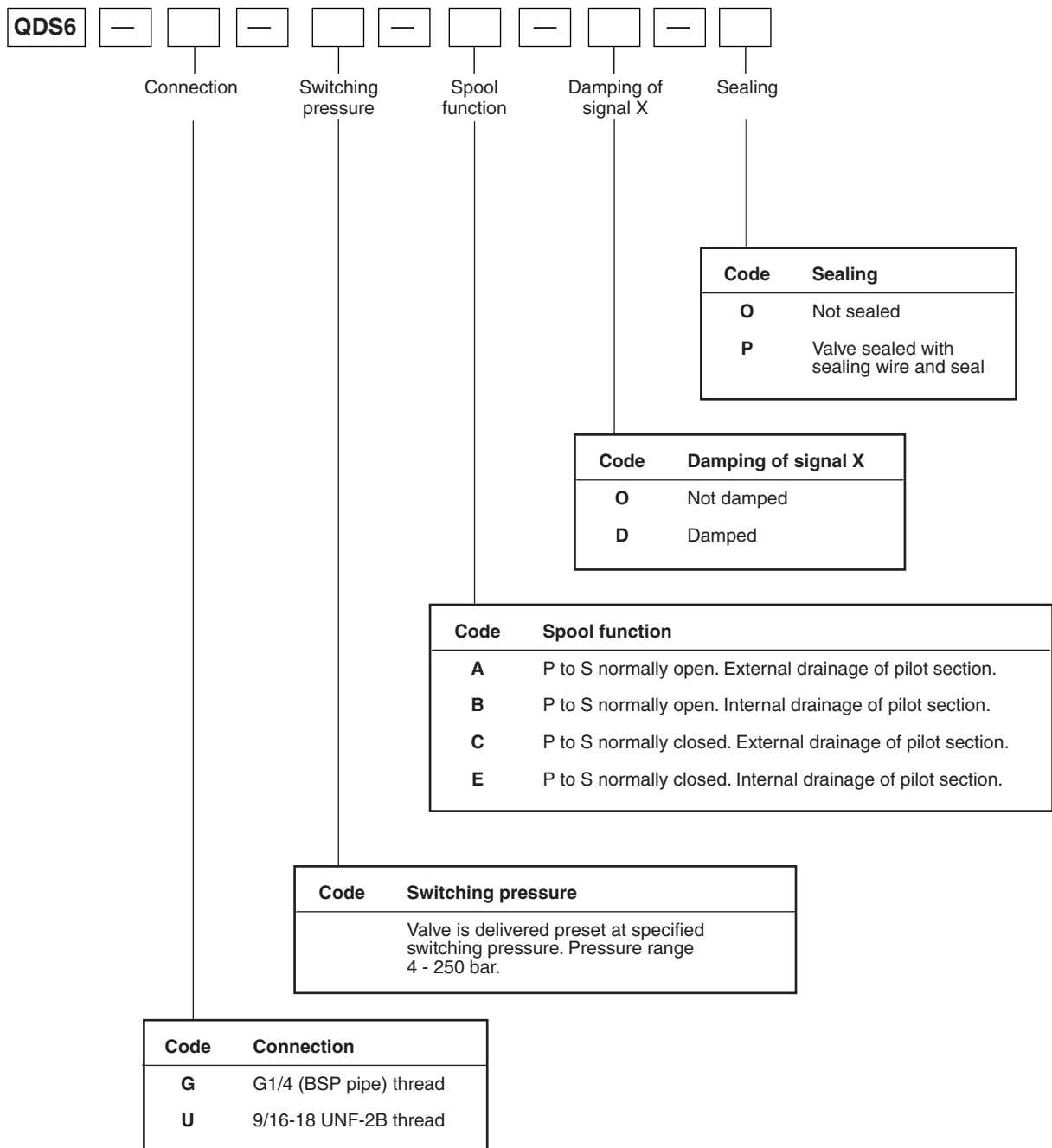


**Ordering**

When ordering your QDS6 sequence valve, please make use of the ordering-code system as per the example given in the chart below. For certain standard valve settings, however, there are direct ordering numbers, which are given in the table below.

Code	Ordering number
QDS6G-05-B-O-O	8234 8905 75
QDS6G-15-E-O-O	8234 8905 92
QDS6G-25-B-O-O	8234 8906 66
QDS6G-100-B-O-O	8234 8905 83
QDS6G-250-E-O-O	8234 8905 88

**Ordering code**





# Parker Worldwide

## Europe, Middle East, Africa

**AE – United Arab Emirates,**  
Dubai

Tel: +971 4 8127100  
parker.me@parker.com

**AT – Austria,** St. Florian

Tel: +43 (0)7224 66201  
parker.austria@parker.com

**AZ – Azerbaijan,** Baku

Tel: +994 50 2233 458  
parker.azerbaijan@parker.com

**BE/NL/LU – Benelux,**

Hendrik Ido Ambacht  
Tel: +31 (0)541 585 000  
parker.nl@parker.com

**BG – Bulgaria,** Sofia

Tel: +359 2 980 1344  
parker.bulgaria@parker.com

**BY – Belarus,** Minsk

Tel: +48 (0)22 573 24 00  
parker.poland@parker.com

**CH – Switzerland,** Etoy

Tel: +41 (0)21 821 87 00  
parker.switzerland@parker.com

**CZ – Czech Republic,** Klecany

Tel: +420 284 083 111  
parker.czechrepublic@parker.com

**DE – Germany,** Kaarst

Tel: +49 (0)2131 4016 0  
parker.germany@parker.com

**DK – Denmark,** Ballerup

Tel: +45 43 56 04 00  
parker.denmark@parker.com

**ES – Spain,** Madrid

Tel: +34 902 330 001  
parker.spain@parker.com

**FI – Finland,** Vantaa

Tel: +358 (0)20 753 2500  
parker.finland@parker.com

**FR – France,** Contamine s/Arve

Tel: +33 (0)4 50 25 80 25  
parker.france@parker.com

**GR – Greece,** Piraeus

Tel: +30 210 933 6450  
parker.greece@parker.com

**HU – Hungary,** Budaörs

Tel: +36 23 885 470  
parker.hungary@parker.com

**IE – Ireland,** Dublin

Tel: +353 (0)1 466 6370  
parker.ireland@parker.com

**IL – Israel**

Tel: +39 02 45 19 21  
parker.israel@parker.com

**IT – Italy,** Corsico (MI)

Tel: +39 02 45 19 21  
parker.italy@parker.com

**KZ – Kazakhstan,** Almaty

Tel: +7 7273 561 000  
parker.easteurope@parker.com

**NO – Norway,** Asker

Tel: +47 66 75 34 00  
parker.norway@parker.com

**PL – Poland,** Warsaw

Tel: +48 (0)22 573 24 00  
parker.poland@parker.com

**PT – Portugal**

Tel: +351 22 999 7360  
parker.portugal@parker.com

**RO – Romania,** Bucharest

Tel: +40 21 252 1382  
parker.romania@parker.com

**RU – Russia,** Moscow

Tel: +7 495 645-2156  
parker.russia@parker.com

**SE – Sweden,** Spånga

Tel: +46 (0)8 59 79 50 00  
parker.sweden@parker.com

**SK – Slovakia,** Banská Bystrica

Tel: +421 484 162 252  
parker.slovakia@parker.com

**SL – Slovenia,** Novo Mesto

Tel: +386 7 337 6650  
parker.slovenia@parker.com

**TR – Turkey,** Istanbul

Tel: +90 216 4997081  
parker.turkey@parker.com

**UA – Ukraine,** Kiev

Tel: +48 (0)22 573 24 00  
parker.poland@parker.com

**UK – United Kingdom,** Warwick

Tel: +44 (0)1926 317 878  
parker.uk@parker.com

**ZA – South Africa,** Kempton Park

Tel: +27 (0)11 961 0700  
parker.southafrica@parker.com

## North America

**CA – Canada,** Milton, Ontario

Tel: +1 905 693 3000

**US – USA,** Cleveland

Tel: +1 216 896 3000

## Asia Pacific

**AU – Australia,** Castle Hill

Tel: +61 (0)2-9634 7777

**CN – China,** Shanghai

Tel: +86 21 2899 5000

**HK – Hong Kong**

Tel: +852 2428 8008

**IN – India,** Mumbai

Tel: +91 22 6513 7081-85

**JP – Japan,** Tokyo

Tel: +81 (0)3 6408 3901

**KR – South Korea,** Seoul

Tel: +82 2 559 0400

**MY – Malaysia,** Shah Alam

Tel: +60 3 7849 0800

**NZ – New Zealand,** Mt Wellington

Tel: +64 9 574 1744

**SG – Singapore**

Tel: +65 6887 6300

**TH – Thailand,** Bangkok

Tel: +662 186 7000

**TW – Taiwan,** Taipei

Tel: +886 2 2298 8987

## South America

**AR – Argentina,** Buenos Aires

Tel: +54 3327 44 4129

**BR – Brazil,** Sao Jose dos Campos

Tel: +55 800 727 5374

**CL – Chile,** Santiago

Tel: +56 2 623 1216

**MX – Mexico,** Toluca

Tel: +52 72 2275 4200

European Product Information Centre

Free phone: 00 800 27 27 5374

(from AT, BE, CH, CZ, DE, DK, EE, ES, FI,  
FR, IE, IL, IS, IT, LU, MT, NL, NO, PL, PT, RU,  
SE, SK, UK, ZA)

Ed. 2018-09



**Parker Hannifin Ltd.**

Tachbrook Park Drive

Tachbrook Park,

Warwick, CV34 6TU

United Kingdom

Tel.: +44 (0) 1926 317 878

Fax: +44 (0) 1926 317 855

parker.uk@parker.com

www.parker.com