



Auxiliary Valve

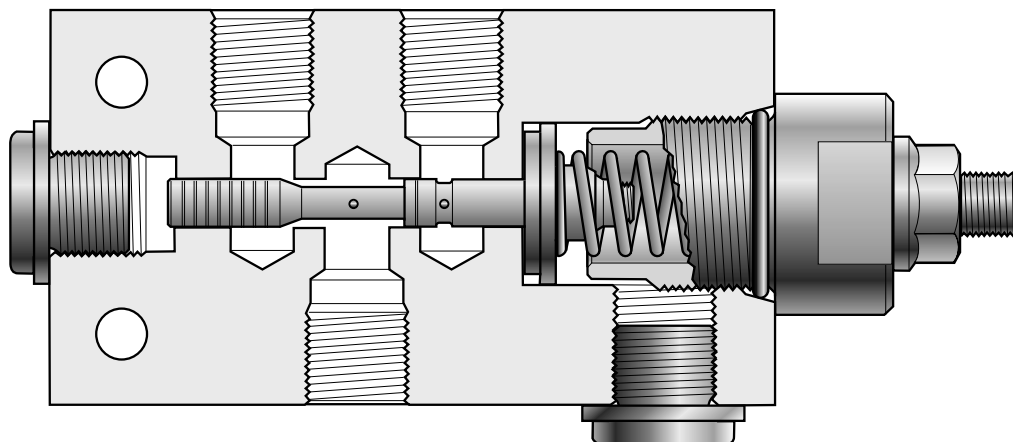
PRS6

Pressure Reducing Valve

Catalogue HY17-8541/UK
September 2005



Subject to alteration without prior notice. The curves and diagrams in this catalogue are typical examples only. While the contents of the catalogue are updated continuously, the validity of the information given should always be confirmed. For more detailed information, please contact Parker.



Applications

The PRS6 is a three-way pressure reducing valve that has been developed to give reduced pressure in a particular part of a hydraulic system. The valve maintains the secondary pressure setting constantly, regardless of pressure variations on the primary side. A common application is in pilot circuits in hydraulic and electro-hydraulic servo systems, where the pressure is taken from the main system and reduced by the PRS6 to a level that is suitable for the pilot circuit.

Construction and function

The valve housing is manufactured from continuously-cast grey iron and contains a precision-ground spool. To keep oil consumption at a low level, the spool has positive overlapping. This gives a certain difference in secondary pressure at different flow take-off rates. For this reason, the valve setting should be made with the desired flow rate passing through the valve. When a high primary pressure is reduced to a low secondary pressure (pressure differential over 150 bar), pressure reduction should be effected in two stages using two PRS6 valves connected in series.

Advantages

- Compact and easy to install.
- Easy to adjust within respective pressure range.
- Can be factory-set and sealed to prevent unauthorized pressure changing.
- Highly suited for use as a reducing valve in pilot circuits where the pilot pressure is taken from the main circuit.
- Withstands high pressure shocks in the tank connection.

Optional equipment

Numerous other options are available for the PRS6. For further information, please contact your Parker representative.

- Spool for two-way function.
- Hand wheel for easy changing of pressure setting.
- Flanged version of PRS6 for flanging directly to, e.g. a valve block.
- Adjuster device for external control of secondary pressure by means of a pilot pressure.

Technical Data

**Auxiliary Valves
PRS6**

Possible pressure setting ranges

(applicable range will depend on pressure setting you specify)

Secondary pressure

- 4-10 bar
- 11-20 bar
- 21-30 bar
- 31-45 bar
- 46-150 bar
- 150 bar to any value below 250 bar.

Primary pressure

Max. 250 bar

Tank pressure

Max. 250 bar in pressure shocks.

Recommended reduction

(differential between primary and secondary pressure)

Max. 150 bar

Pressure-setting flow rate

Pressure should be set with desired flow rate (l/min) flowing through the valve.

Recommended flow rate

Max. 30 l/min depending on secondary pressure.

See diagram.

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

Connection P to connection T max. 0.15 l/min at pressure differential of 100 bar and oil viscosity of 30 mm²/s.

Weight

Approx. 1.0 kg

Hydraulic fluids

Best performance is obtained using mineral-base oil of high quality and cleanness 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 mm²/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:

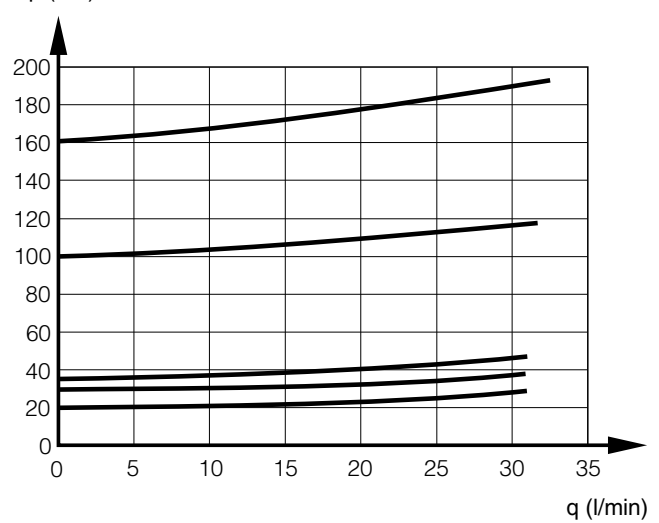
-40 °C to +70 °C

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

General

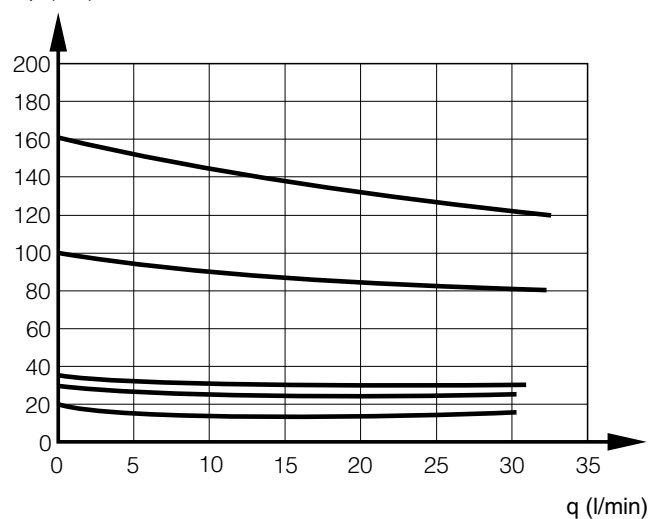
Technical data in this catalogue is applicable using mineral base oil according to DIN 51524 at a viscosity of 30 mm²/s and temperature of 50 °C.

Δ p (bar)

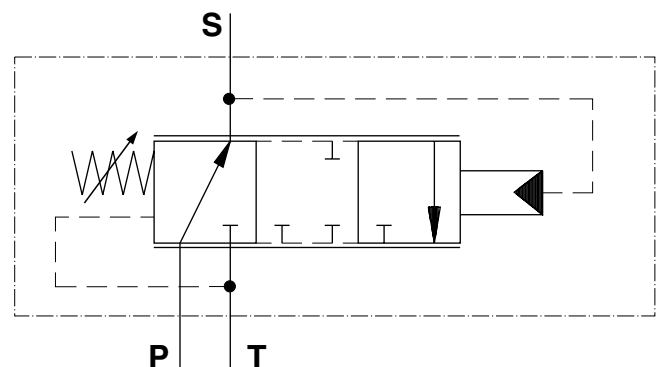


Pressure limiting characteristic for PRS6

Δ p (bar)



Pressure reducing characteristic for PRS6



Functional symbol for PRS6

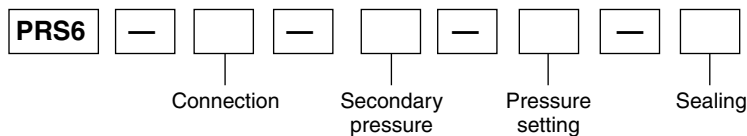
Ordering

Please use ordering-code system in chart below to specify your PRS6 valve.

The ordering numbers in the table below apply to certain standard settings (please cross-reference with ordering-code system chart) and can be used directly when ordering.

Code	Ordering number
PRS6G-10-01-O	8234 8906 35
PRS6G-20-01-O	8234 8906 25
PRS6G-30-01-O	8234 8906 33
PRS6G-40-01-O	8234 8906 34
PRS6G-100-01-O	8234 8907 08

Ordering code



Code	Sealing
O	Not sealed
P	Valve sealed with sealing wire and seal

Code	Pressure-setting flow rate
Secondary pressure is set while desired flow rate (l/min) is passing through valve. Flow range: 0 - 30 l/min	

Code	Secondary pressure
Valve is delivered preset at specified secondary pressure (pressure range 4 bar to marginally below 250 bar)	

Code	Connection
G	G1/4 (BSP pipe) thread
U	9/16-18 UNF-2B thread



WARNING

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS 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 and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application, including consequences of any failure, and review the information concerning the product or system in the current product catalogue. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.

The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Parker Hannifin Corporation and its subsidiaries at any time without notice.

Offer of Sale

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

Hydraulics Group Sales Offices

Europe

Austria
Wiener Neustadt
Tel: +43 (0)2622 23501
Fax: +43 (0)2622 66212

Belgium
Nivelles
Tel: +32 (0)67 280 900
Fax: +32 (0)67 280 999

Czech Republic
Klecany
Tel: +420 284 083 111
Fax: +420 284 083 112

Denmark
Ballerup
Tel: +45 4356 0400
Fax: +45 4373 8431

Finland
Vantaa
Tel: +358 (0)9 4767 31
Fax: +358 (0)9 4767 3200

France
Contamine-sur-Arve
Tel: +33 (0)450 25 80 25
Fax: +33 (0)450 03 67 37

Germany
Kaarst
Tel: +49 (0)2131 4016 0
Fax: +49 (0)2131 4016 9199

Hungary
Budapest
Tel: +36 (06)1 220 4155
Fax: +36 (06)1 422 1525

Ireland
Dublin
Tel: +353 (0)1 293 9999
Fax: +353 (0)1 293 9900

Italy
Corsico (MI)
Tel: +39 02 45 19 21
Fax: +39 02 4 47 93 40

The Netherlands
Oldenzaal
Tel: +31 (0)541 585000
Fax: +31 (0)541 585459

Norway
Ski
Tel: +47 64 91 10 00
Fax: +47 64 91 10 90

Poland
Warsaw
Tel: +48 (0)22 863 49 42
Fax: +48 (0)22 863 49 44

Portugal
Leca da Palmeira
Tel: +351 22 9997 360
Fax: +351 22 9961 527

Slovakia
Ref. Czech Republic

Spain
Madrid
Tel: +34 91 675 73 00
Fax: +34 91 675 77 11

Sweden
Spånga
Tel: +46 (0)8 597 950 00
Fax: +46 (0)8 597 951 10

Turkey
Merter/Istanbul
Tel.: +90 212 482 91 06 or 07
Fax: +90 212 482 91 10

United Kingdom
Warwick
Tel: +44 (0)1926 317 878
Fax: +44 (0)1926 317 855

International

Australia
Castle Hill
Tel: +61 (0)2-9634 7777
Fax: +61 (0)2-9899 6184

Canada
Milton, Ontario
Tel: +1 905-693-3000
Fax: +1 905-876-0788

China
Beijing
Tel: +86 10 6561 0520
Fax: +86 10 6561 0526

Asia Pacific Group
Hong Kong, Kowloon
Tel: +852 2428 8008
Fax: +852 2425 6896

India
Mumbai
Tel: +91 22 7907081
Fax: +91 22 7907080

Japan
Tokyo
Tel: +(81) 3 6408 3900
Fax: +(81) 3 5449 7201

Latin America Group
Brazil
Tel: +55 12 3954-5100
Fax: +55 12 3954-5266

South Africa
Kempton Park
Tel: +27 (0)11-961 0700
Fax: +27 (0)11-392 7213

USA
Cleveland (industrial)
Tel: +1 216-896-3000
Fax: +1 216-896-4031
Lincolnshire (mobile)
Tel: +1 847-821-1500
Fax: +1 847-821-7600

Parker Hannifin is the world's premier supplier of motion and control systems and solutions, with sales and manufacturing facilities throughout the world. For product information and details of your nearest Parker sales office, visit us at www.parker.com or call free on 00800 2727 5374.



Catalogue HY17-8541/UK
PDF 09/05

© Copyright 2005
Parker Hannifin Corporation
All rights reserved.