



aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding



QDS6

Auxiliary Valves

Sequence Valve, 3-way



ENGINEERING YOUR SUCCESS.

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.



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.

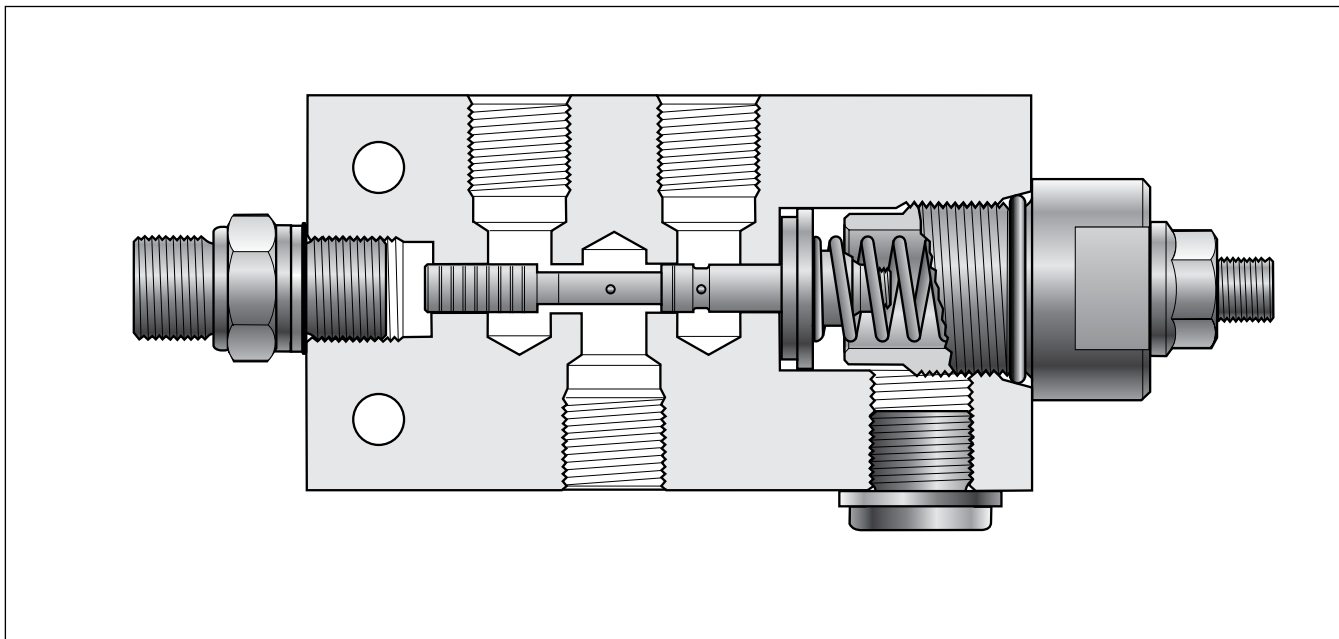
This document and other information from Parker-Hannifin Corporation, its subsidiaries and authorized distributors provide product or system options for further investigation by users having technical expertise.

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 mm²/s:

- P to S max. 12 cm³/min
- S to T max. 12 cm³/min
- P to X max. 5 cm³/min

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

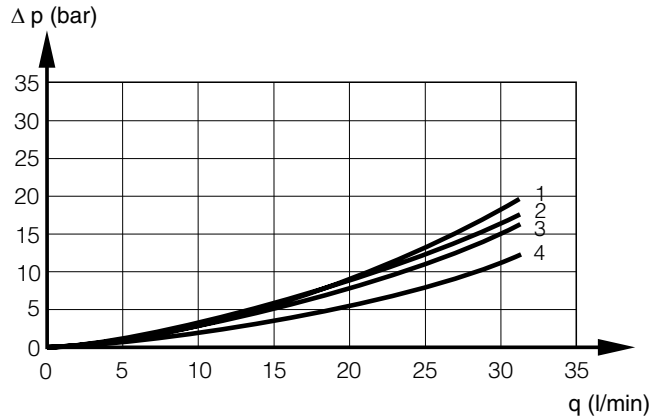
Temperature range, ambient:

-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.



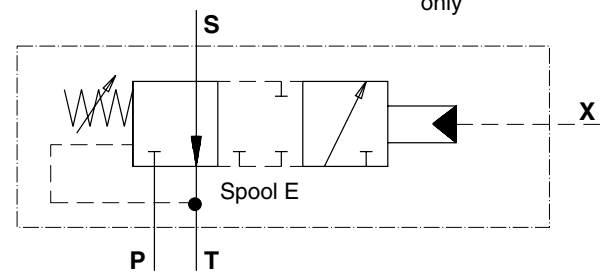
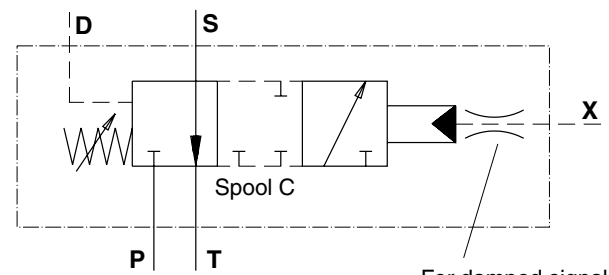
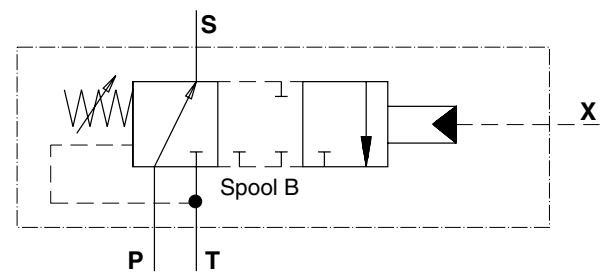
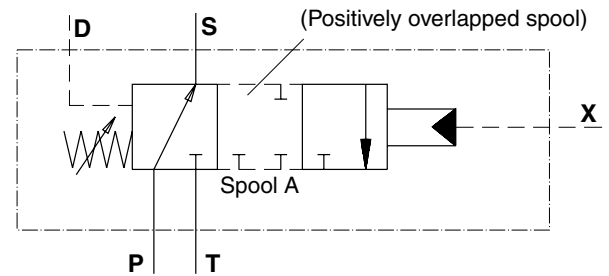
Pressure drop for QDS6

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

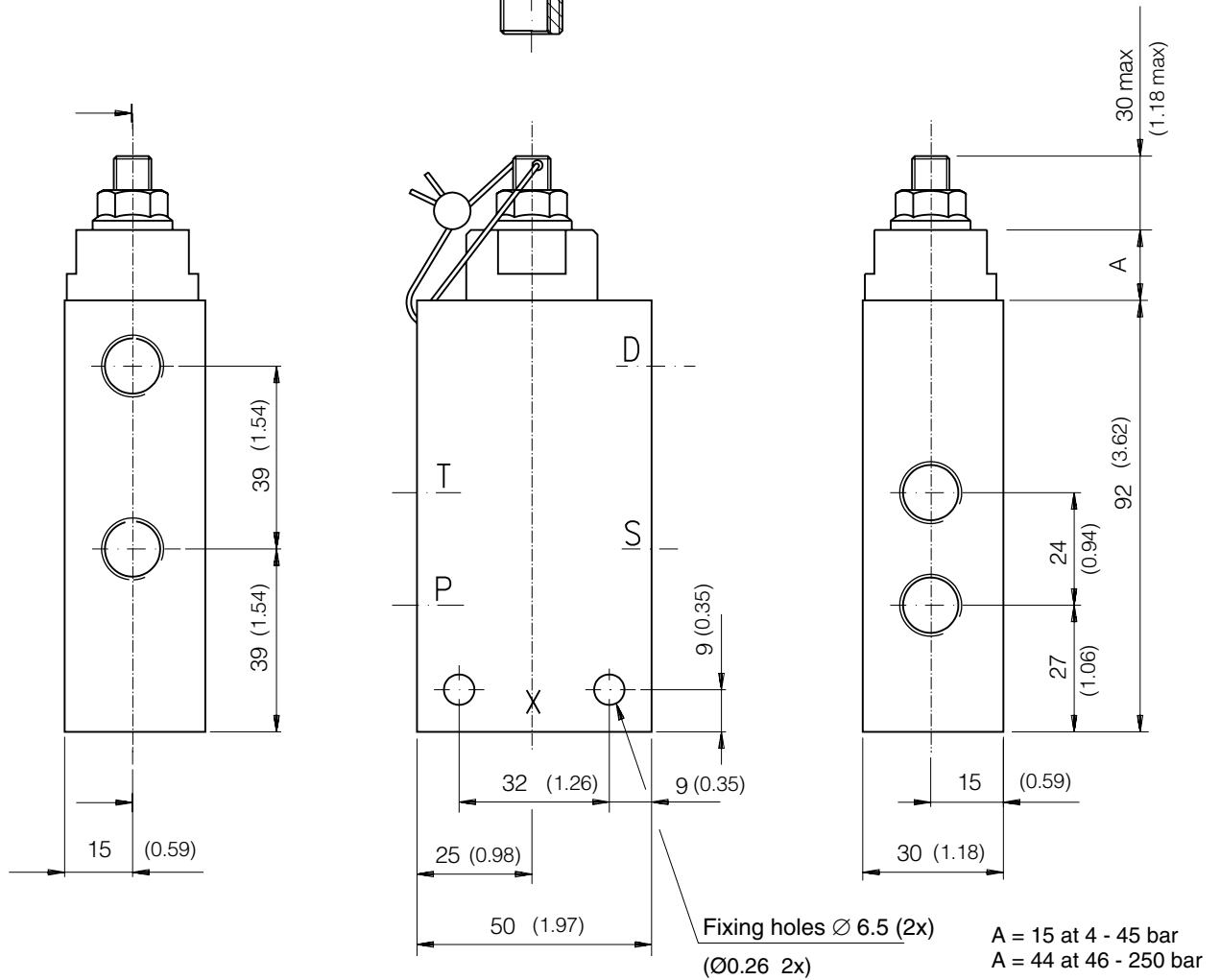
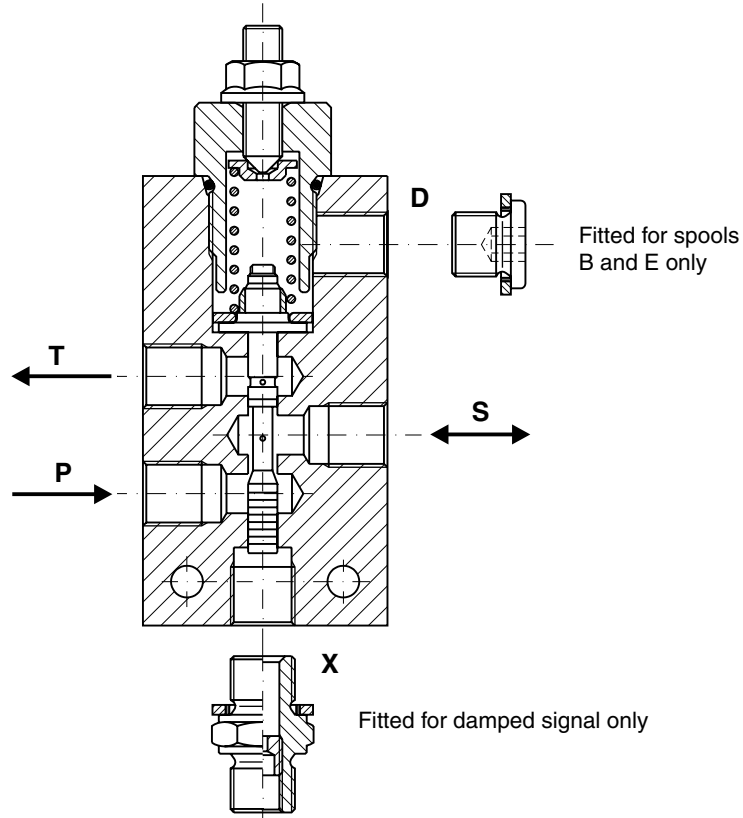
2 = Pressure drop S-T for spool C and E

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 8905 91
QDS6G-100-B-O-O	8234 8905 83
QDS6G-250-E-O-O	8234 8905 88

Ordering code

