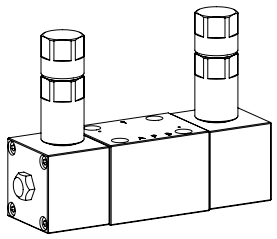
Spool valve

Flange construction

- with integral pressure reversal
- 4/2-way
- Q_{max} = 30 l/min
- p_{max} = 315 bar

NG6
ISO 4401-03



DESCRIPTION

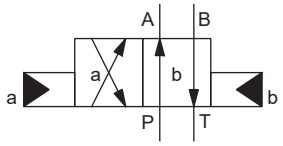
Spool valve with 4 connections in a 5 chamber system with integral pressure reversal. Switch into the oposite switching position when the adjusted reversal pressure is reached. The reversal takes place e.g. in the end position of the stroke or when the load pressure is exceeding the adjusted reversal pressure. Cover with pressure reliefs for adjusting the reversal pressure. Precise spool fit, low leakage, long service life time. Spool made from hardened steel, body from high quality hydraulic cast steel.

APPLICATION

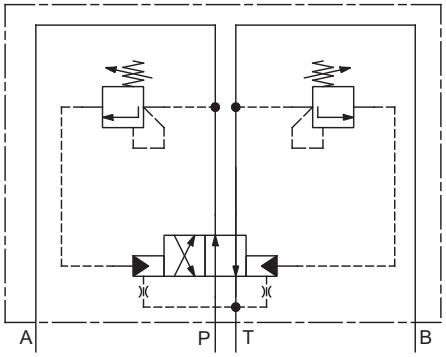
Valves with integral pressure reversal are suitable for controlling oscillating movements of a cylinder. Fields of application are press controls, assembly robots, feeding systems for wood heating or other systems with pressure dependent repositioning.

SYMBOL

Simplified



Detailed



TYPE CODE

A Q 4 Z 6 0 ☐ - ☐ # ☐

International standard interface ISO		
Integral pressure reversal		
Number of control ports		
2 switching positions		
Nominal size 6		
Spool number		
Standard Soft switching	☐ W	
Sealing material	NBR FKM (Viton)	☐ D1
Design index (subject to change)		

1.8-20

GENERAL SPECIFICATIONS

Designation	4/2-spool valve
Construction	Direct operated
Mounting	Flange construction
Nominal size	NG6 according to ISO 4401-03
Actuation	Integral pressure reversal
Ambient temperature	-25…+70 °C
Weight	2,5 kg
MTTFd	150 years

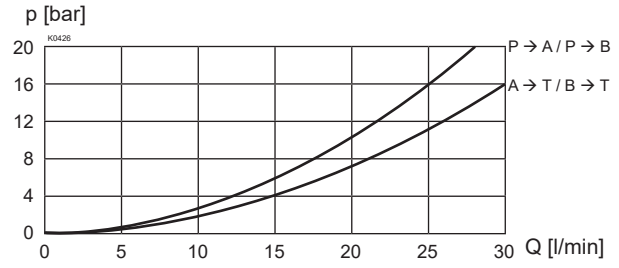
HYDRAULIC SPECIFICATIONS

Working pressure	p_{max} = 315 bar
Tank pressure	$p_{T\,max}$ = 160 bar
System pressure	25…315 bar
Reversal pressure	Maximum 90 % of the system pressure
Maximum volume flow	Q_{max} = 30 l/min, see characteristics
Minimum volume flow	Q_{min} = 2 l/min
Fluid	Mineral oil, other fluid on request
Viscosity range	12 mm²/s…320 mm²/s
Temperature range fluid	-25…+70 °C (NBR) -20…+70 °C (FKM)
Contamination efficiency	Class 20 / 18 / 14
Filtration	Required filtration grade ß 10…16 ≥ 75, see data sheet 1.0-50

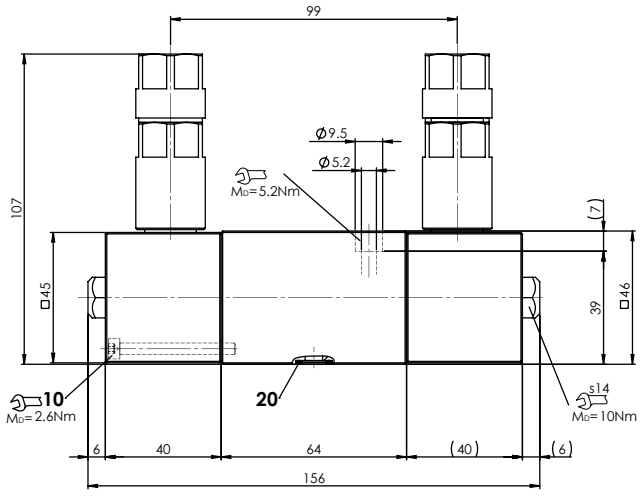
PERFORMANCE SPECIFICATIONS

Oil viscosity υ = 30 mm²/s

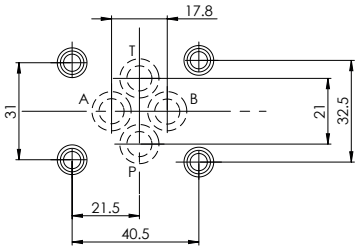
Δp = f (Q) **Pressure drop-volume flow characteristics**



DIMENSIONS



HYDRAULIC CONNECTION



PARTS LIST

Position	Article	Description
10	246.1141	Socket head screw M4 x 40 DIN 912
20	160.2093	O-ring ID 9,25 x 1,78 (NBR)

STANDARDS

Mounting interface	ISO 4401-03
Contamination efficiency	ISO 4406

MANUAL OVERRIDE

Integrated in the cover. Actuation by pressing the pin.

SEALING MATERIAL

NBR or FKM (Viton) as standard, choice in the type code

ACCESSORIES

Fixing screws	Data sheet 1.0-60
Threaded subplates	Data sheet 2.9-30
Multi-station subplates	Data sheet 2.9-60
Horizontal mounting blocks	Data sheet 2.9-100
Technical explanations	Data sheet 1.0-100
Filtration	Data sheet 1.0-50

INSTALLATION NOTES

Mounting type	Flange mounting 4 fixing holes for socket head screws M5 x 45
Mounting position	Any, preferably horizontal
Tightening torque	Fixing screws M_D = 5,2 Nm (screw quality 8.8, zinc coated)

Note! The length of the fixing screw depends on the base material of the connection element.

SURFACE TREATMENT

- The valve body is coated with a two component paint
- The covers and the screws are zinc coated

COMMISSIONING

Attention! The reversal pressure adjusted on the pressure reliefs must not exceed a maximum of 90% of the system pressure.

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