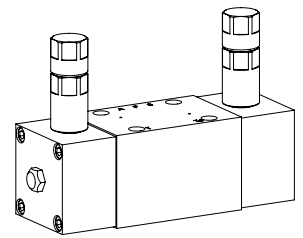


## Spool valve

### Flange construction

- ◆ with integral pressure reversal
- ◆ 4/2-way
- ◆  $Q_{max} = 60 \text{ l/min}$
- ◆  $p_{max} = 315 \text{ bar}$

**NG10**  
**ISO 4401-05**



## DESCRIPTION

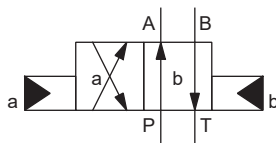
Spool valve with 4 connections in a 5 chamber system with integral pressure reversal. Switches into the opposite switching position when the adjusted reversal pressure is reached. The reversal takes place e.g. in the end position of the stroke or when the load pressure is exceeding the adjusted reversal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

## APPLICATION

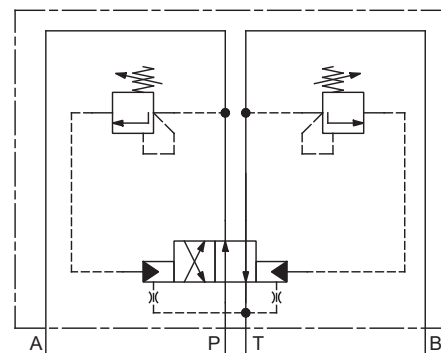
Valves with integral pressure reversal are suitable for controlling oscillating movements of a cylinder. Fields of application are press controls, assembly robots, feeding systems for wood heating or other systems with pressure dependent repositioning.

## SYMBOL

Simplified



Detailed



## TYPE CODE

International standard interface ISO	A Q 4 Z 10 0 <input type="checkbox"/> - <input type="checkbox"/> # <input type="checkbox"/>									
Integral pressure reversal	<input type="checkbox"/>									
Number of control ports	4									
2 switching positions	Z									
Nominal size 10	10									
Spool number	0									
Standard	<input type="checkbox"/>									
Soft switching	W									
Sealing material	NBR		<input type="checkbox"/>							
	FKM (Viton)		D1							
Design index (subject to change)	1.8-40									

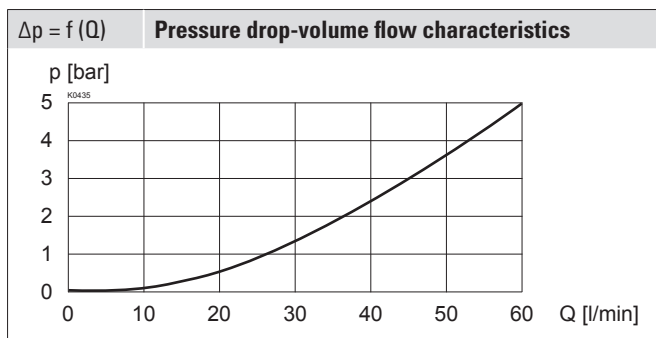
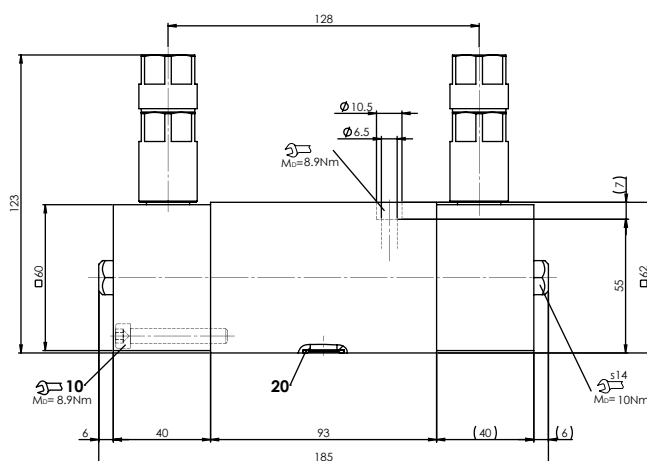
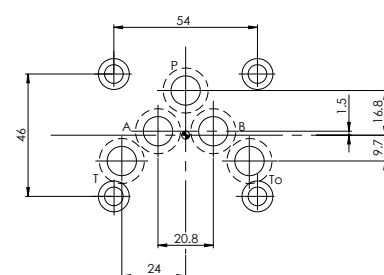
**GENERAL SPECIFICATIONS**

Designation	4/2-spool valve
Construction	Direct operated
Mounting	Flange construction
Nominal size	NG10 according to ISO 4401-05
Actuation	Integral pressure reversal
Ambient temperature	-25...+70 °C
Weight	4,8 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	$Q_{\max} = 60$ l/min, see characteristics
Minimum volume flow	$Q_{\min} = 4$ l/min
Fluid	Mineral oil, other fluid on request
Viscosity range	12 mm <sup>2</sup> /s...320 mm <sup>2</sup> /s
Temperature range fluid	-25...+70 °C (NBR) -20...+70 °C (FKM)
Contamination efficiency	Class 20 / 18 / 14
Filtration	Required filtration grade $\beta_{10...16} \geq 75$ , see data sheet 1.0-50

**PERFORMANCE SPECIFICATIONS**

 Oil viscosity  $\nu = 30$  mm<sup>2</sup>/s

**DIMENSIONS**

**HYDRAULIC CONNECTION**

**PARTS LIST**

Position	Article	Description
10	246.3141	Socket head screw M6 x 40 DIN 912
20	160.2140	O-ring ID 14,00 x 1,78 (NBR)

**STANDARDS**

Mounting interface	ISO 4401-05
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

## INSTALLATION NOTES

Mounting type	Flange mounting 4 fixing holes for socket head screws M6 x 65
Mounting position	Any, preferably horizontal
Tightening torque	Fixing screws $M_0 = 8,9 \text{ Nm}$ (quality 8.8, zinc coated)

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



## ACCESSORIES

Fixing screws	Data sheet 1.0-60
Threaded subplates	Data sheet 2.9-40
Multi-station subplates	Data sheet 2.9-70
Horizontal mounting blocks	Data sheet 2.9-110
Technical explanations	Data sheet 1.0-100
Filtration	Data sheet 1.0-50

## COMMISSIONING

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



## SURFACE TREATMENT

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