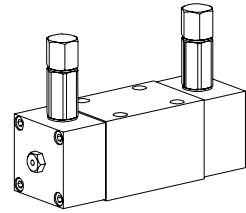


Spool valve with integral pressure reversal

- 4/2-way
- $Q_{max} = 60 \text{ l/min}$
- $p_{max} = 315 \text{ bar}$

NG10
ISO 4401-05


DESCRIPTION

Spool valve with integral pressure reversal subplate mounted, interface NG10 according to ISO 4401-05. Direct operated spool valve in 5 chamber design. Main spool with coaxial pilot spool. End cover with relief valve to set the shifting pressure and integrated manual override. Precise spool fit for low leak and long service life. The spools are made from hardened steel and the valve body from high grade hydraulic cast iron. The valve body is painted and the cover zinc coated.

FUNCTION

This 4/2-way valve shifts into the opposite spool position if the pressure setting is reached. in the outlet part A or B. Shifting takes place when cylinder reaches its end position or if due to load pressure setting is reached. By exchanging the main spool shifting can be dampened.

APPLICATION

Valves with integral pressure reversal are intended to operate oscillating movements of a cylinder. Fields of application are press controls, assembly robots, feeding systems for wood heating or other systems with pressure dependent resetting.

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TYPE CODE

	A	Q	4	Z	10	0	<input type="checkbox"/>	#	<input type="checkbox"/>
International mounting interface ISO									
Integral pressure reversal									
Number of control ports									
2 spool positions									
Nominal size 10									
Spool type									
Option for damped shifting	<input checked="" type="checkbox"/> W								
Design-Index (Subject to change)									

GENERAL SPECIFICATIONS

Designation	4/2-way spool valve
Nominal size	NG10 according to ISO 4401-05
Construction	Direct operated spool valve
Operations	Integral pressure reversal
Mounting	Flange construction
Connection	4 holes for socket cap screws M6x65 Threaded connection plates Multi-flange subplate Longitudinal stacking system
Ambient temperature	-20...+50° C
Mounting position	any, preferably horizontal
Fastening torque	$M_D = 9,5 \text{ Nm}$ (screw quality 8.8)
Weight	$m = 5,0 \text{ kg}$

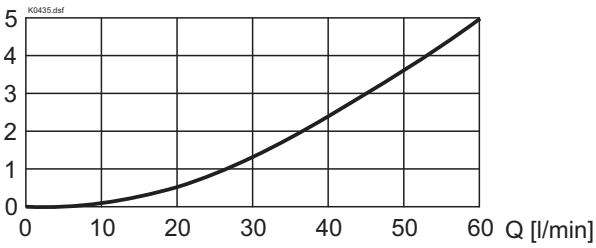
HYDRAULIC SPECIFICATIONS

Fluid	Mineral oil, other fluid on request
Contamination efficiency	ISO 4406:1999, class 20/18/14 (Required filtration grade $\beta_{10...16} \geq 75$) see data sheet 1.0-50/2
Viscosity range	12 mm ² /s...320 mm ² /s
Fluid temperature	-20...+70°C
Working pressure on port A and B	$p_{max} = 315 \text{ bar}$ $p = 25...315 \text{ bar}$
System pressure	max 90 % of the system pressure
Reversal pressure	$p_{max} = 160 \text{ bar}$
Tank pressure in port T	$Q_{max} = 60 \text{ l/min}$, see characteristics
Max. volume flow	$Q_{min} = 4 \text{ l/min}$
Min. volume flow	

CHARACTERISTICS Oilviscosity $\nu = 30 \text{ mm}^2/\text{s}$

$\Delta p = f(Q)$ Pressure drop volume flow characteristics

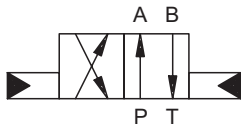
Δp [bar]



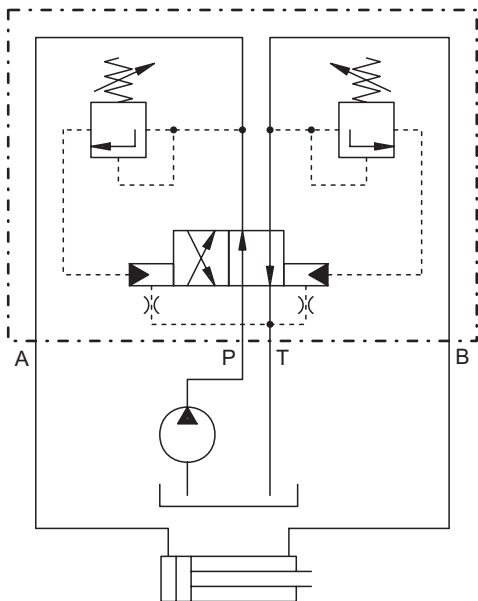
Curve for all volume flow direction

SYMBOLS

simplified

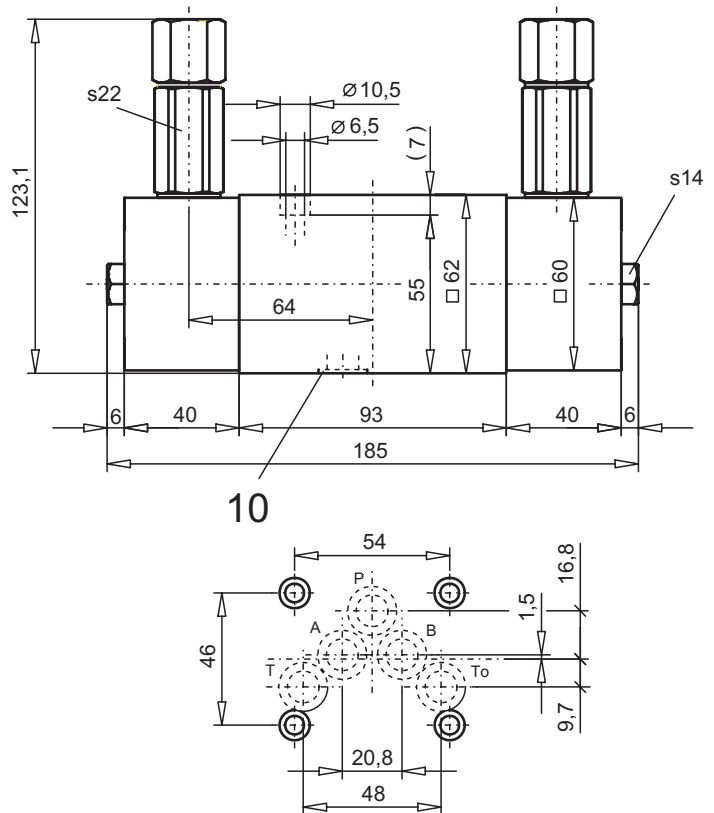


detailed



DIMENSIONS

4/2-way spool valve



PARTS LIST

Position	Article	Description
10	160.2140	O-ring ID 14,00x1,78

ACCESSORIES

Threaded connection plates, Multi-flange plates and longitudinal stacking system

register 2.9

Technical explanation see data sheet 1.0-100E