SCHIEDRUM

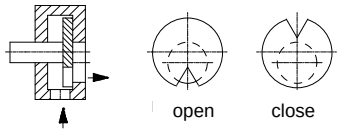
3-WAY FLOW CONTROL VALVE

manual control – Subplate mounting
450 bar – up to 16 l/min

Type

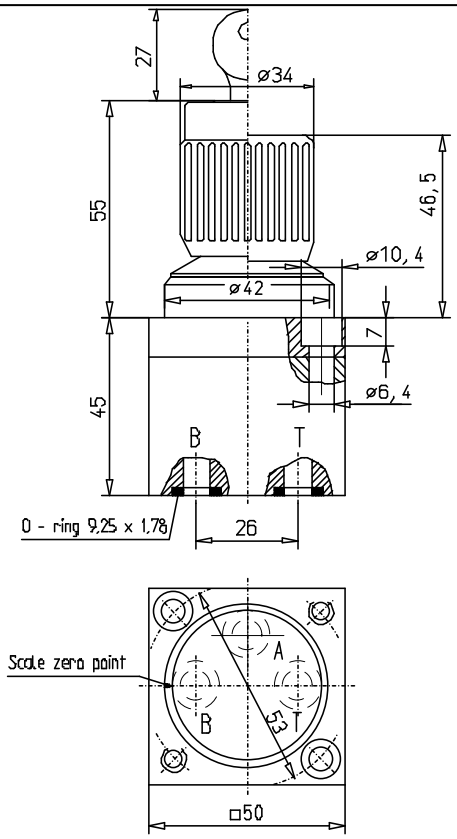
30 D

3-Way-Control Valves are flow control valves wits - in parallel connection inserted pressure balance. The valves regulate an adjustable flow rate independently of pressure changes in the work or the drain line automatically constantly. With this valve the orifice range can be adjusted between zero and the rated flow by means of the scaled control knob. For a wide range of application, the rated flow is not affected by viscosity or contamination. This is achieved by the setting throttle with orifice – like – design developed by us. This setting throttle works by overlaying so that a defined volume flow without leakage oil is achieved. There fore the settings of very small flows are possible.

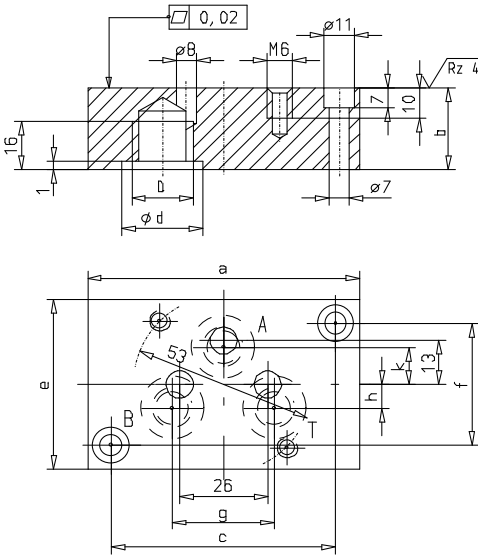


FEATURES

- Assembly on connection plates with pipe connections, intermediate plates - elements for vertical linkage or control block
- 7 nominal adjusting flow rate ranges
- Scaled rotary button, adjustment angle 150°
- Control knob can be locked optionally – VW locking E 10
- Standard sealing material Buna N / NBR, other materials possible



Connecting - plate



Dimensions (mm)			
Recommended flow rage (l/min)			
	u to 4	u to 10	> 10
a	80	100	120
b	20	25	30
c	66	86	106
d	Ø19	Ø23	Ø27
*D	G1/4	G3/8	G1/2
e	50	60	60
f	36	46	46
g	30	39	59
h	7	6	8
k	11	14	11
Weight (kg)			
	0,5	1,0	1,4

* to ISO 228/1

ORDER INFORMATION

The scope of delivery of the control valve includes the O – rings for sealing the connecting holes, 2 mountings screws M6 x 45 DIN 912-10.9; M_A = 14 Nm (for pressure stage 3H and 4H screw-material -12.9, M_A 16,5 Nm), and for code **" S "**, one safety key.

Type	3-way flow control valve	30 D	S	10	H	M15

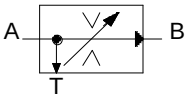
Type series
Series code letter
Actuation: Control knob without lock = **without Code**
Control knob with lock **= S**
Rated volume flow: l/min **1; 1.6; 2.5; 4.0; 6.3; 10; 16**
Pressure stage: N = **up** to 100 bar; **H** = **up** to 210 bar
3H = up to 315 bar; **4H** = up to 450 bar
Supplementary data for special models
e.g. special Viton sealings (FKM)= **M15**

Accessory

Connecting plate - Order - No.: **44-030-00128** for G 1/4; **44-030-00129** for G 3/8; **44-030-00130** for G 1/2

SPECIFICATION

1.General

Symbols	
Design	Adjustment throttle: flat rotary valve with triangular notch, screen -like design Differential pressure valve: switched in parallel with the adjustment throttle
Weight	1.0 kg
Mounting position	Any
Direction of volume flow	A to B controlled A to T no controlled remainder flow
Ambient temperature range	- 25 ℃ to + 80 ℃

2.Hydraulic characteristics

Nominal pressure / max. pressure	Pressure stage: N = up to 100 bar; H = up to 210 bar 3H = 315 bar; 4H = 450 bar
Hydraulic fluid	Hydraulic oil according to DIN 51 524 (1,2)
Hydraulic fluid temperature range	- 20 ℃ to + 70 ° C
Viscosity range	5 to 350 mm²/s
Rated volume flow range	1; 1.6; 2.5; 4; 6,3; 10; 16 l/min
Min. adjustable and controllable	10 cm³/min
Leakage flow rate	<10 cm³/min
Contamination level / filtering	General permittable class 18/15 according to ISO 4406 or 9 according NAS 1638(recommended filter: min. retaining rate $\beta_{10\text{-}15} \geq 75$)

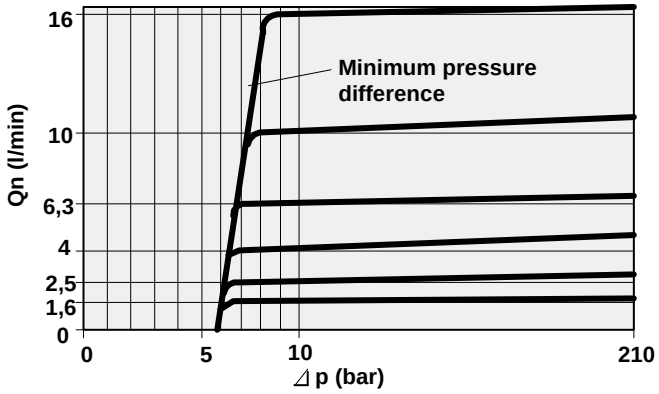
3.Type of actuation

	manual via control knob
Setting angle	150°
Controlling torque	approx. 100 Ncm

CHARACTERISTICS

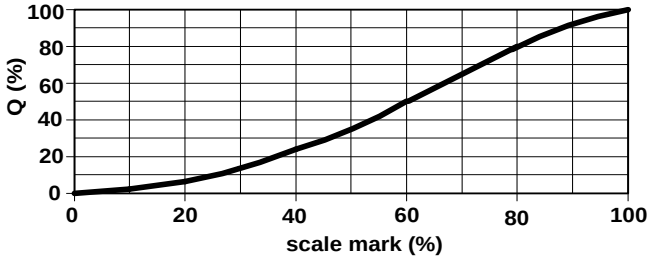
Q-Δp-characteristic; Q = (Δp)

the response for the direction of flow from A to B for the various nominal flow ranges, in relation to the pressure difference and the minimum pressure difference necessary for the function.



Q-S-characteristic

shows a characteristic opening curve for the valve.
A calibration certificate is supplied on request.



Temperature influence

shows the variation in flow rate Δp in relation to the oil temperature for 4 different oil viscosity's. In this case, Δp is the increase in flow rate as a percentage of the pre-set flow rate with an oil temperature of 20°C.
The sensitivity to temperature cannot be perceived for moderate and heavy flow rates. Thin oils give the lowest variation in flow rate for low flow rates and great variation in temperature.