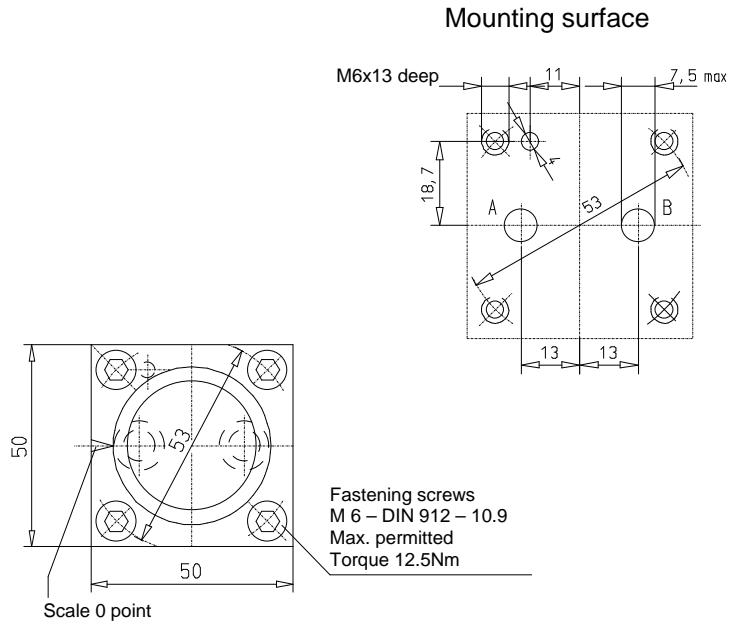
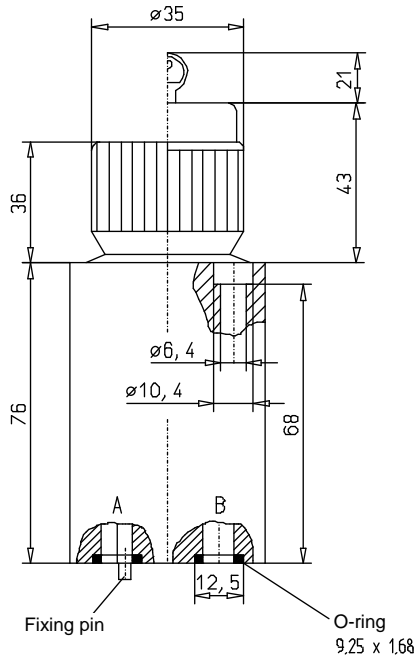


2-way flow control valves are flow valves (throttle valves) with integrated pressure balance. The valves control an adjustable volume flow independently of pressure modification in the inlet or outlet line automatically to obtain a constant value. They can be mounted on the inlet or outlet side of the consumer. Due to the orifice – like design of the adjusting throttle, the value is largely independent of the fluid viscosity.

FEATURES of the special construction

- high pressure construction 500 bar
- Hole pattern according to internal Schiedrum-standard with 4 valve fixing screws
- without by-pass check valve
- 6 rated setting volume flow ranges
- scaled control knob, setting angle 300°
- control knob can be locked optionally – VW locking E 10
- assembly on connection plates or control block
- Standard sealing material Buna N / NBR



ORDER INFORMATION

The scope of delivery of the flow-control valve includes the O – rings for sealing the connecting bores and for the **S** model, one safety key.

Name **2-Way flow control valve 20 A XA S 25 M15**

Types

Series code letter

Special design

Actuation: control knob without lock = **without Code**
control knob with lock = **S**

Rated adjustment volume flow in l/min **0.6; 1.5; 3.0; 9.0; 16; 25**

Supplementary data for special models

e. g. special sealing Viton (FKM) = **M 15**

ACCESSORY

Connecting plates

see dimension sheet 9-74-020-0049

Set of valve fastenings

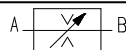
Order-No.: **44-020-00170**

4 pcs. Socket head cap screws M 6 x 80 DIN 912 - 10.9

CHARACTERISTICS

1. General

Symbol
Design



Adjustment throttle: flat rotary valve with triangular notch, orifice-type
Differential pressure valve: switched in series with the adjustment throttle

Weight

1.4 kg

Mounting position

any

Direction of volume flow

A to B controlled; B to A throttled return flow

Ambient temperature

-25°C to +70°C

2. Hydraulic Characteristics

Rated pressure	315 bar for all connections
Max. pressure	500 bar
Hydraulic fluid	Hydraulic oil according to DIN 51 524 (1, 2)
Hydraulic fluid temperature range	-20°C to +70°C
Viscosity range	5 - 350 mm ² /sec
Rated volume flow range	0.6; 1.5; 3.0; 9.0; 16; 25 l/min
Min. adjustable and controllable volume flow	approx. 50 cm ³ /min
Contamination level/filtering	General permit table class 18/15 according to ISO 4406 or 9 according NAS 1638 (recommended filter: min. retaining rate $\beta_{10-15} \geq 75$)

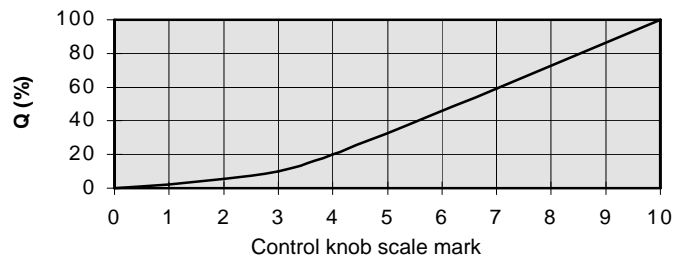
3. Type of actuation

Controlling torque	approx. 100 Ncm
Setting angle	300°

CHARACTERISTICS

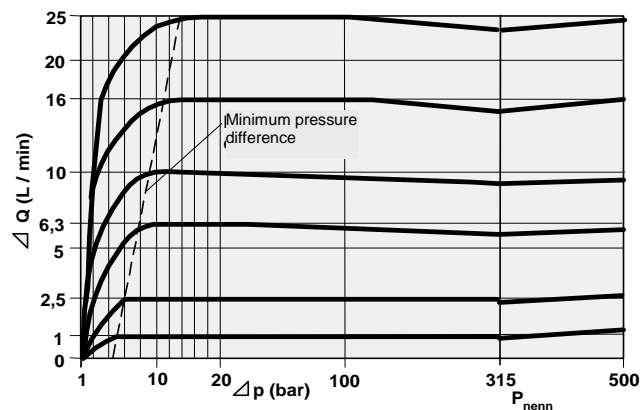
Q-S-characteristic; Q = f (scale position)

Fig. 1 shows a typical dependency of the volume flow as a function of the valve setting angle or the control knob scaling. (the scale is linear)



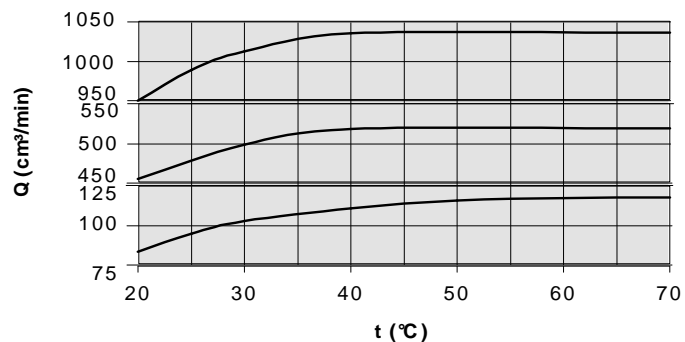
Q-Δ p-characteristic

Fig. 2 shows the control response of the flow control valve for the different rated flow ranges A to B dependent on pressure difference as well as the minimum pressure difference required for operation.



Q-t-characteristic line; Q = f (t, p = constant)

Fig. 3 shows the volume flow change depending on the oil temperature at a constant pressure difference of 100 bar for 3 different setting values. Measured using hydraulic oil HLP 46 (ISO-VG 46) = 46mm²/sec. at 40°C. For longer volume flows, the temperature influence becomes smaller. For smaller flow, low viscosity oils result in smaller volume flow deviations.



For applications in excess of the given specification, please contact Schiedrum.

All specified parameters are partially based on long user's experience and partly on measurements made in laboratories. The data are typical of the valve and can deviate in series. All measurements were carried out on a test stand with an oil viscosity of 36mm²/sec and a filter mesh of < 10 μm. All data given here should be used as description of the product only and they are not to understand as warranty in the sense of law.