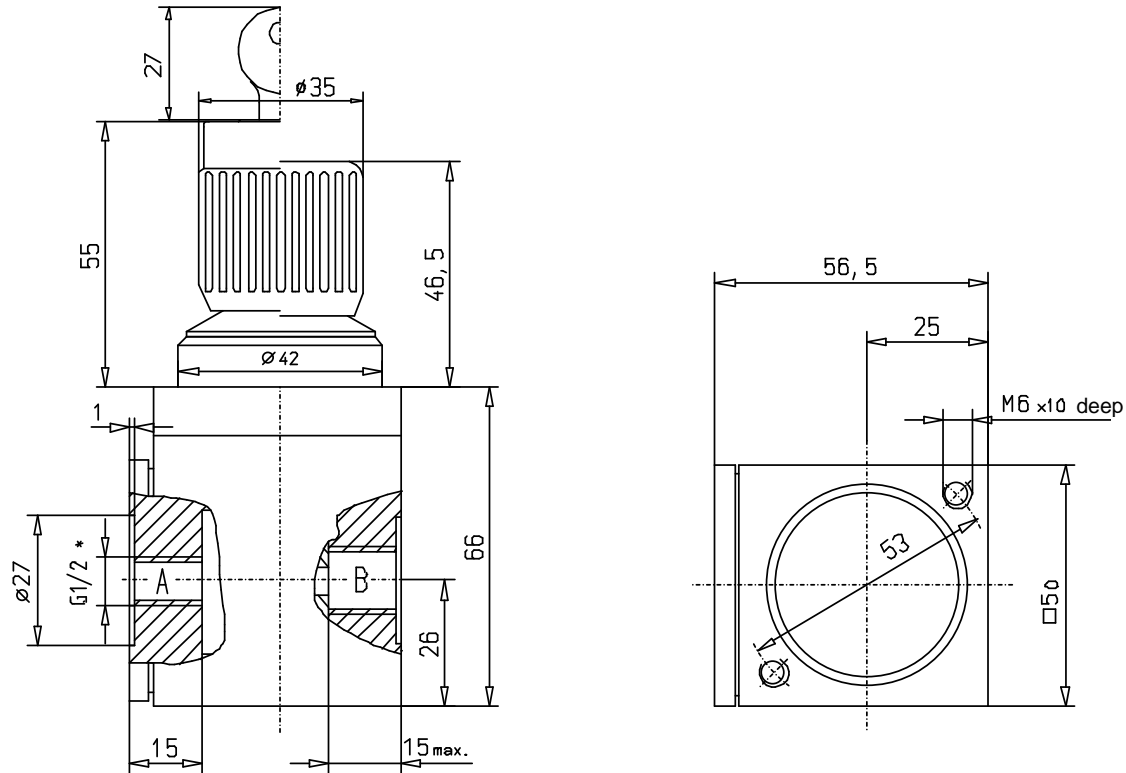


Two-way flow control valves are flow valves (throttle valves) with integrated pressure regulator. The valves automatically control an adjustable volume flow independently of pressure variations in the supply or discharge line to make it constant.

FEATURES

- Direct connection over pipe thread
- 12 rated setting volume flow ranges
- Scaled control knob, setting angle 150°
- Control knob can be locked optionally - VW locking E 10
- Standard sealing material Viton (FKM)



ORDER INFORMATION

The scope includes for the S model one safety key.

Name — **2- Way flow control valve 222 D S 10 H A M434**

Type series

Series code letter

Actuation: Control knob without lock = **without code**

Control knob with lock = **S**

Rated adjustment volume flow in l/min (see operating data)

Pressure stage: up to 10 bar = **N**

Pressure stage: up to 25 bar = **H**

Materials: with free cutting steel = **without code**

with acid-resisting steel = **A**

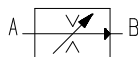
Supplementary data for special models

e. g. special sealing Cemraz = **M 434**

CHARACTERISTICS

1. General

Symbol



Weight

any

Mounting position

Direction of volume flow

A to B controlled

Ambient temperature

-25°C to +90°C

2. Hydraulic characteristics

Nominal pressure / max. pressure	N = up to 10 bar; H = up to 25 bar
Hydraulic fluid	Various mineral and synthetic fluids, fuels, many chemicals, acids (sealing material in the normal version fluorine carbon elastomeres; Viton A)
Ambient temperature	-20°C to +90°C
Rated volume flow range	63; 100; 160; 250; 400; 630 cm ³ /min 1; 1,6; 2,5; 4; 6,3; 10* L/min
Hydraulic fluid temperature range	-20 °C to 100 °C
* 10 l/min only for high pressure version	

3.Type of actuation Manual via control knob

Controlling torque approx. 50 Ncm

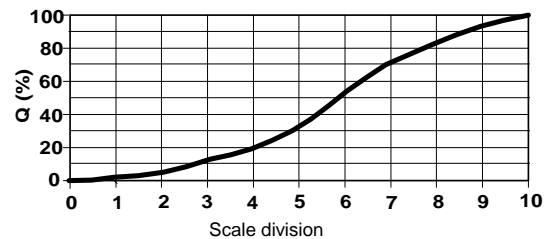
Setting angle 150°

CHARACTERISTICS

Q-S-Kennlinie; Q=f (Scale mark)

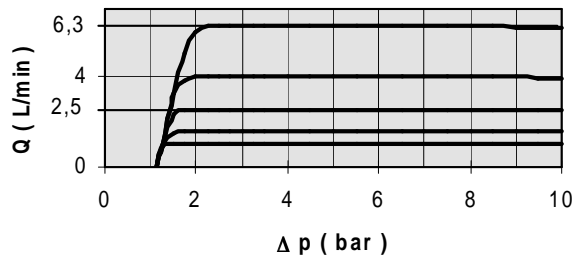
Fig. 1 shows a typical dependency of the volume flow as a function of the valve setting angle or the control knob scaling (the scale is linear).

Fig.1



Δp -Q characteristic (low pressure version)

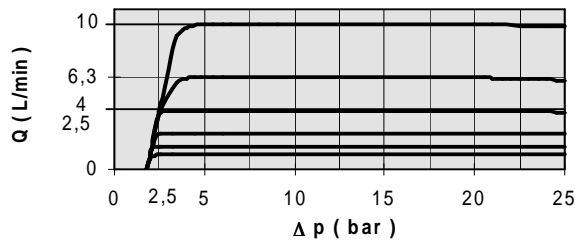
Fig. 2



Δp -Q characteristic (high pressure version)

Fig. 2 and 3 show the control behaviour for the volume flow direction A to B for the various rated volume flow ranges, independence on the pressure difference, as well as the minimum pressure difference, which is necessary for the functions.

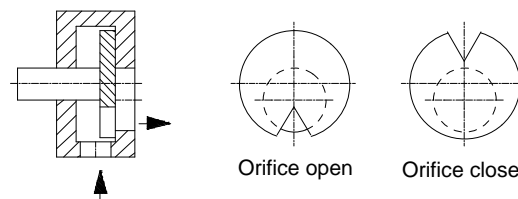
Fig. 3



Description of the valve

1. Valve

The valves automatically keep constant an adjustable outlet flow independent of pressure variations in the inlet and outlet lines. Depending on the design, control can be on the forward or return flow side of the consumer. The volume flow can be controlled infinitely by means of the control knob with a scale graduation from zero till ten. The set pressure range is from zero to the selected rated volume flow. For a wide range of application, the setting orifice for controlling the volume flow is not affected by viscosity or contamination. There fore the settings of very small flows is possible. A volume flow is made independent of the pressure by means of the differential pressure valve (pressure balance). It is designed as diaphragm seat valve. It provides a constant pressure difference at the setting orifice and is arranged downstream of the orifice (secondary control). The pressure balance is open in its normal position. Thus, there may be a starting step change when switching on the valve. The volume flow is controlled in A to B direction of flow only.



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

All specified parameters are partially based on long years of experience. The data are typical and may slightly deviate depending on the valve series. All measurements were carried out on a test stand with an oil viscosity of 36 mm²/s, a filter mesh width of < 10 μm. All data given here should be used as description for the product only and they are not to understand as warranty (guaranteed quality) in the sense of law.