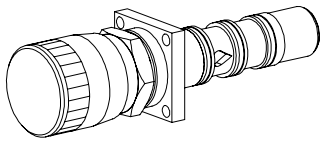
2-way flow control valve
Slip-in cartridge

- Q_{max} = **12,5 l/min**
- $Q_{N\ max}$ = **12,5 l/min**
- p_{max} = **200 bar**

NG4

Wandfluh standard



DESCRIPTION

2-way slip-in cartridge-type flow control valve, cavity acc. to Wandfluh standard. The valve is available in two different setting versions: turning knob and lockable type EWA. In its standard form, this control valve can be supplied with three nominal volume flow ranges. The cartridge body is made of steel and phosphatized. The aluminium turning knob is colorless anodized.

FUNCTION

The 2-way flow control valve is designed to keep to oil flow to any actuator constant irrespective of the load. By turning the knob of the variable restrictor the volume flow can be adjusted. If the pressure in the system changes the pressure compensator will change the diameter of the oil passage in order to keep the pressure difference on the measuring orifice constant.

APPLICATION

For use in all hydraulic systems where the supply volume flow needs to be kept constant even when the load fluctuates. Installation of the screw-in cartridge in control blocks as well as in the Wandfluh sandwich plates and flange valves of the NG4-Mini size as a functional element (please refer to the separate data sheets in register 2.5). Cavity tools are available for machinig the cavities in steel and aluminium (hire or purchase). Please refer to the data sheets in register 2.13.

CONTENTS

TYPE CODE

MR402 - [ ] - [ ] # [ ]

Flow control valve 2-way
Turning knob adjustment

Nominal volume
Q_N = 2,5 [2,5]
Q_N = 6,3 [6,3]
Q_N = 12,5 [12,5]

Additional marking for lock adjustment [EWA]

Design-Index (Subject to change)

GENERAL SPECIFICATIONS

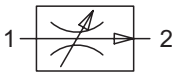
Description	2-way flow control valve
Construction	Slip-in cartridge for cavity acc. to Wandfluh standard
Mounting	Slip-in cartridge 4 socket head cap screws M4
Ambient temperature	-20…50° C
Mounting postition	any
Fastening torque	M_D = 2,8 Nm
Weight:	m = 0,4 kg (knob) m = 0,5 kg (lock)

HYDRAULIC SPECIFICATIONS

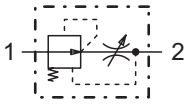
Fluid	Mineral oil, other fluid on request
Contamination efficiency	ISO 4406:1999, class 18/16/13 (Required filtration grade ß 6...10 ≥ 75) refer to data sheet 1.0-50/2
Viscosity range	12 mm²/s...320 mm²/s
Fluid temperature	-20...+70°C
Peak pressure	p_{max} = 200 bar
Nominal volume flow rates	Q_N= 2,5 l/min, Q_N= 6,3 l/min, Q_N = 12,5 l/min
Min. volume flow	Q_{min} = 0,02 l/min
Max. volume flow	Q_{max} = 12,5 l/min
Control accuracy	≤ 1%

SYMBOLS

simplified



detailed



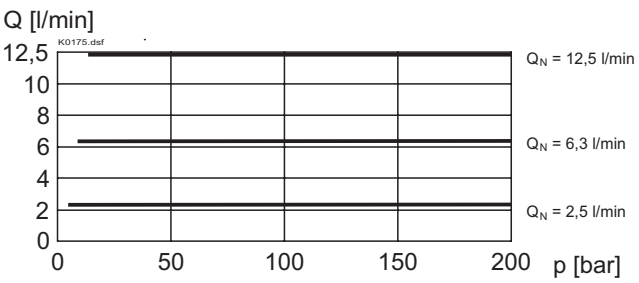
CONTROL

Mechanical types of operation in 2 different versions:

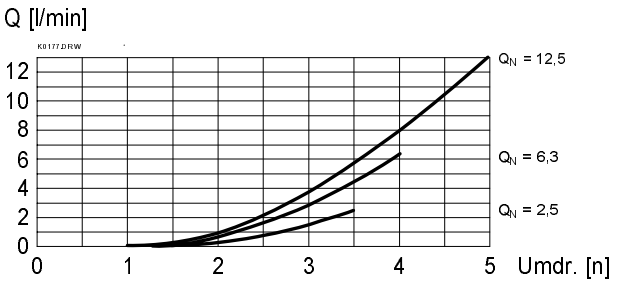
no remark	= Knob adjustment interlockable
EWA	= Lock adjustment

CHARACTERISTICS Oil viscosity υ = 30 mm²/s

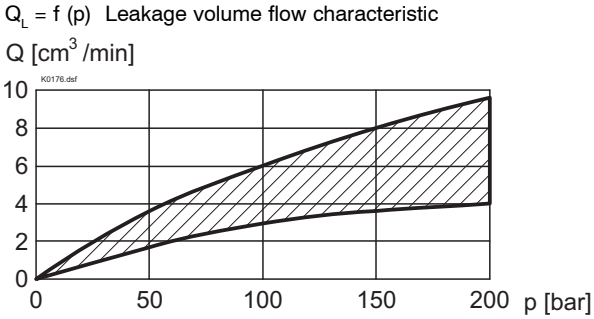
Q = f (p) Pressure drop/flow characteristic



Q = f (n) Volume flow adjustment characteristicts

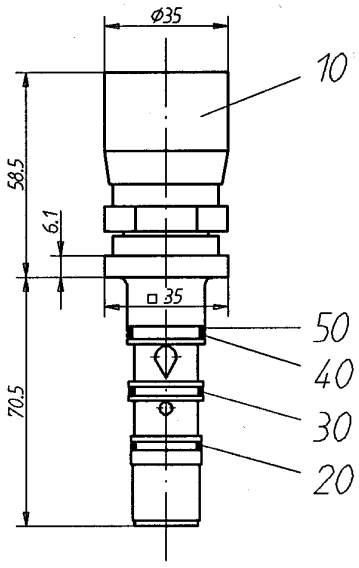


Q_L = f (p) Leakage volume flow characteristic

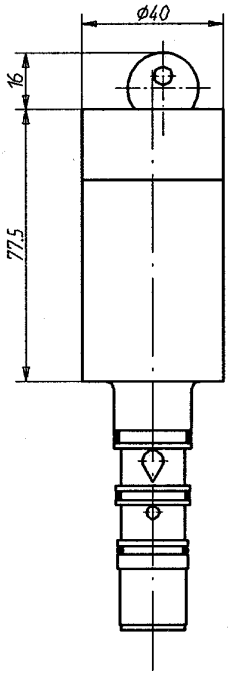


DIMENSIONS

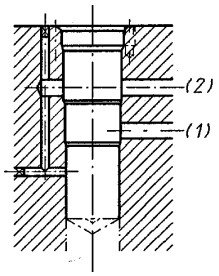
Knob adjustment



Lock adjustment



Cavity drawing acc.
to Wandfluh standard



For cavity details and cavity tools,
see data sheet 2.13-1009

PARTS LIST

Position	Article	Description
10	114.1201	Turning knob
20	160.2156	O-ring ID 15,60x1,78
30	160.2170	O-ring ID 17,17x1,78
40	160.2188	O-ring ID 18,77x1,78
50	49.3226	Back-up ring RD 19,1x22x1,4

ACCESSOIRES

Cartridge built-in flange- or sandwich plates
Flange/Sandwich valves Register 2.5

Technical explanation see data sheet 1.0-100E