

GENERAL SPECIFICATIONS

Designation	Proportional 2-way flow control valve
Construction	Direct operated
Mounting	Screw-in cartridge construction
Nominal size	M18 x 1,5 according to Wandfluh standard
Actuation	Proportional solenoid
Ambient temperature	-25...+70 °C
Weight	0,70 kg
MTTFd	150 years

HYDRAULIC SPECIFICATIONS

Working pressure	$p_{max} = 350 \text{ bar}$
Maximum volume flow	$Q_{max} = 2 \text{ l/min}$
Minimum volume flow	$Q_{min} = 0,02 \text{ l/min}$
Volume flow direction	1 → 2
Leakage oil	See characteristics
Nominal volume flow range	$Q_N = 2 \text{ l/min}$
Hysteresis	≤ 3 % at optimal dither signal
Repeatability	≤ 1 % at optimal dither signal
Fluid	Mineral oil, other fluid on request
Viscosity range	12 mm ² /s...320 mm ² /s
Temperature range fluid	-25...+70 °C (NBR) -20...+70 °C (FKM)
Contamination efficiency	Class 18 / 16 / 13
Filtration	Required filtration grade β 6...10 ≥ 75, see data sheet 1.0-50

SURFACE TREATMENT

- ◆ The cartridge body and the solenoid are zinc-nickel coated

INSTALLATION NOTES

Mounting type	Screw-in cartridge M18 x 1,5
Mounting position	Any, preferably horizontal
Tightening torque	$M_D = 40 \text{ Nm}$ Screw-in cartridge $M_D = 1,2 \text{ Nm}$ solenoid screws

ELECTRICAL SPECIFICATIONS

Protection class	IP65
Relative duty factor	100 % DF
Service life time	10 ⁷ (number of switching cycles, theoretically)
Voltage tolerance	± 10 % with regard to nominal voltage
Standard nominal voltage	12 VDC, 24 VDC
Limiting current at 50 °C	$I_G = 1080 \text{ mA}$ (12 VDC) $I_G = 540 \text{ mA}$ (24 VDC)

Note! Other electrical specifications see data sheet 1.1-90



ACCESSORIES

Proportional amplifier	Register 1.13
Threaded body	Data sheet 2.9-205
Technical explanations	Data sheet 1.0-100
Filtration	Data sheet 1.0-50

MANUAL OVERRIDE

HB4,5 as standard

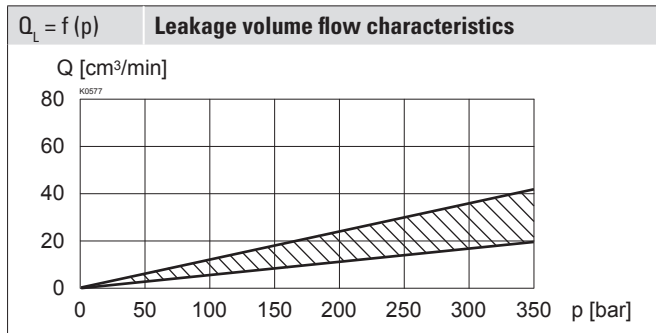
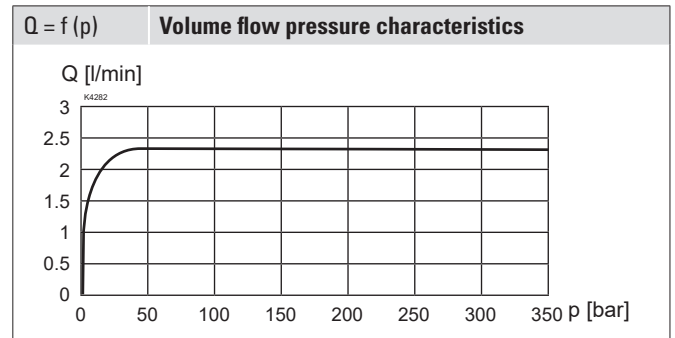
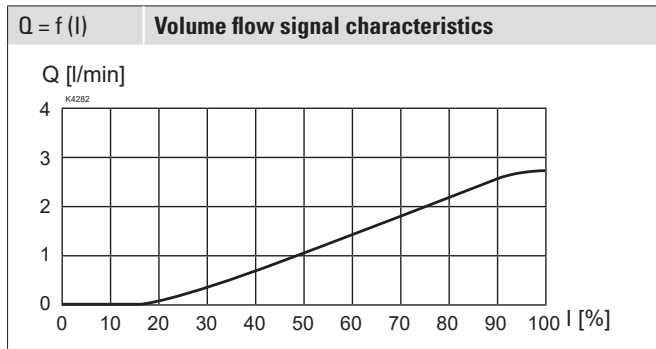
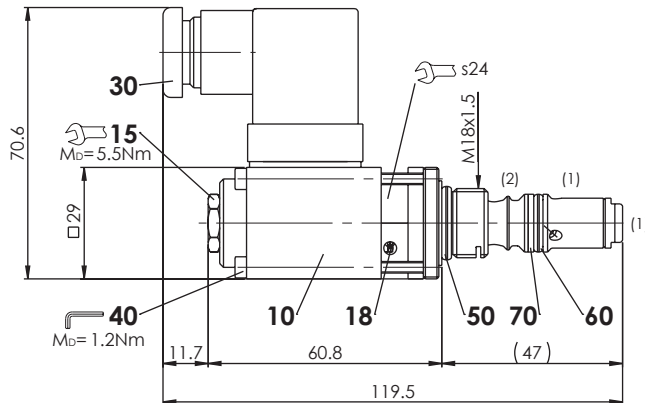
SEALING MATERIAL

NBR or FKM (Viton) as standard, choice in the type code

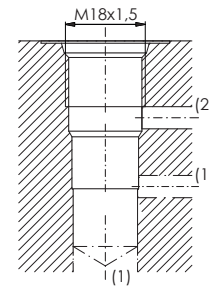
STANDARDS

Cartridge cavity	ISO 7789
Solenoids	DIN VDE 0580
Connection execution D	EN 175301 – 803
Protection class	EN 60 529
Contamination efficiency	ISO 4406

PERFORMANCE SPECIFICATIONS

 Oil viscosity $\nu = 30 \text{ mm}^2/\text{s}$

DIMENSIONS

HYDRAULIC CONNECTION

Cavity drawing according to Wandfluh standard


Note!


For detailed cavity drawing and cavity tools see data sheet 2.13-1038

PARTS LIST

Position	Article	Description
10	256.2418	Proportional solenoid PI29V-G12
	256.2453	Proportional solenoid PI29V-G24
15	253.8000	Manual override HB4,5
18	160.2120	O-ring ID 12,42 x 1,78 (NBR)
30	219.2002	Electric plug B (black)
50	160.2156	O-ring ID 15,60 x 1,78 (NBR)
	160.6156	O-ring ID 15,60 x 1,78 (FKM)
60	160.2111	O-ring ID 11,11 x 1,78 (NBR)
	160.6111	O-ring ID 11,11 x 1,78 (FKM)
70	049.3156	Backup ring rd 12,1 x 15 x 1,4