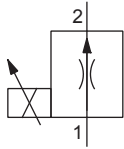
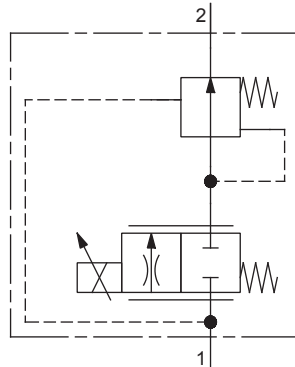


SYMBOL

Simplified



Detailed QN...


ACTUATION

Actuation	Proportional solenoid, wet pin push type, pressure tight
Execution	W.S45 / 23 x 50 (Data sheet 1.1-180) M.S45 / 23 x 50 (Data sheet 1.1-181)
Connection	Connector socket EN 175301 – 803 Connector socket AMP Junior-Timer Connector Deutsch DT04 – 2P

GENERAL SPECIFICATIONS

Designation	Proportional 2-way flow control valve
Construction	Direct operated
Mounting	Screw-in cartridge construction
Nominal size	1 5/16" -12 UN according to Wandfluh standard
Actuation	Proportional solenoid
Ambient temperature	-25...+70 °C
Weight	0,95 kg
MTTFd	150 years

HYDRAULIC SPECIFICATIONS

Working pressure	$p_{max} = 350$ bar
Maximum volume flow	$Q_{max} = 80$ l/min
Minimum volume flow	$Q_{min} = 0,2$ l/min
Volume flow direction	1 → 2
Leakage oil	See characteristics
Nominal volume flow range	$Q_N = 32; 63; 80$ l/min
Hysteresis	≤ 5 % 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

MANUAL OVERRIDE

HB4,5

Optionally: Screw plug (HB0), no actuation possible

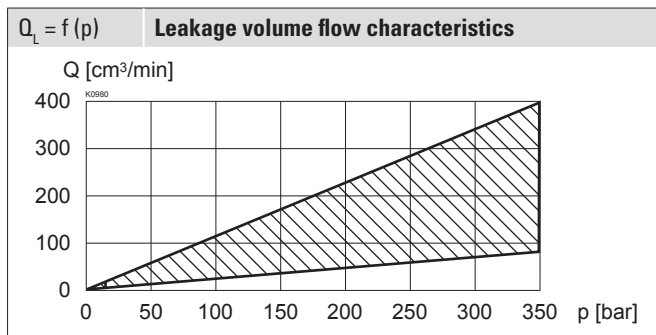
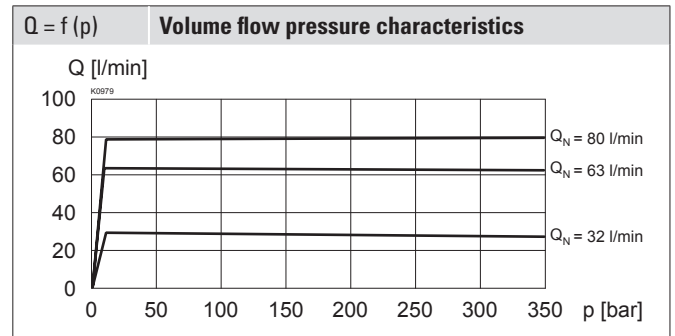
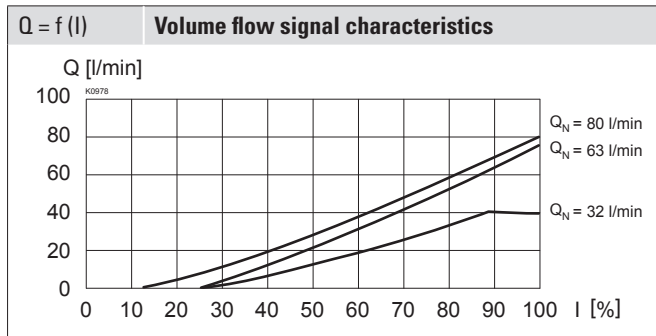
ELECTRICAL SPECIFICATIONS

Protection class	Connection execution D: IP65 Connection execution J: IP66 Connection execution G: IP67 and IP69K
Relative duty factor	100 % DF
Standard nominal voltage	12 VDC, 24 VDC
Limiting current at 50 °C	$I_G = 1560$ mA ($U_N = 12$ VDC) $I_G = 780$ mA ($U_N = 24$ VDC)

Note!


Other electrical specifications see data sheet 1.1-180 (slip-on coil W) and 1.1-181 (slip-on coil M)

PERFORMANCE SPECIFICATIONS

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

ACCESSORIES

Proportional amplifier	Register 1.13
Electric plug B (black)	Article no. 219.2002
Technical explanations	Data sheet 1.0-100
Filtration	Data sheet 1.0-50

SURFACE TREATMENT

- ◆ The cartridge body is gas-nitro-carburised
- ◆ The armature tube and the slip-on coil are zinc- / nickel-coated

SEALING MATERIAL

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

INSTALLATION NOTES

Mounting type	Screw-in cartridge 1 5/16" -12 UN
Mounting position	Any, preferably horizontal
Tightening torque	M _D = 80 Nm Screw-in cartridge M _D = 5 Nm knurled nut M _D = 9,5 Nm HB0 M _D = 5,5 Nm HB4,5

STANDARDS

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

