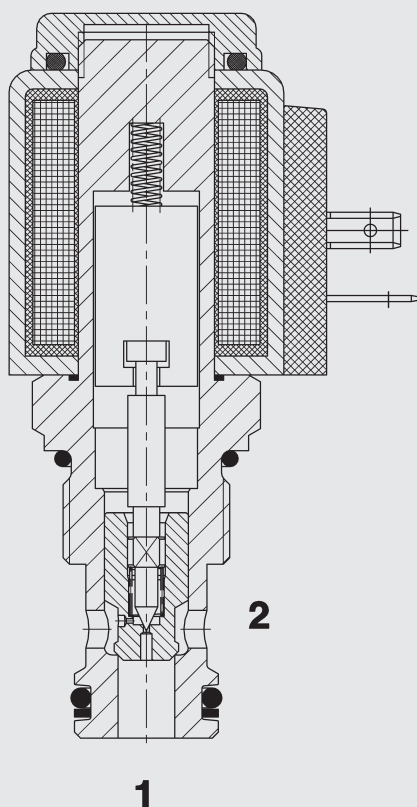


Up to 75 l/min
Up to 350 bar

FUNCTION



When the solenoid coil is not energized, the valve is closed from port 2 to port 1. Flow is permitted from port 1 to port 2.

When energized, there is free flow through the valve from port 2 to 1. Reverse flow from port 1 to 2 is prevented.

2/2 Solenoid Directional Valve Poppet Type, Pilot Operated Normally Closed Metric Cartridge Valve – 350 bar WSM10120Z-01

FEATURES

- External surfaces zinc-plated and corrosion-proof
- Hardened and ground internal valve components to ensure minimal wear and extended service life
- Coil seals protect the solenoid system
- Excellent switching performance by high power HYDAC solenoid
- Low pressure drop due to CFD optimized flow path

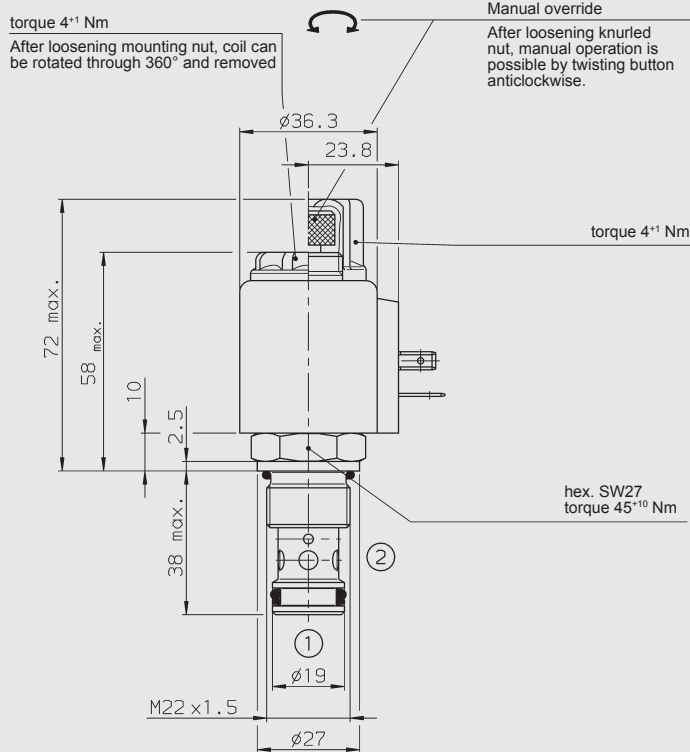
SPECIFICATIONS

Operating pressure:	max. 350 bar
Nominal flow:	max. 75 l/min
Internal leakage:	Leakage-free (max. 5 drops \approx 0,25 cm ³ /min at 350 bar)
Media operating temperature range:	min. -20 °C to max. +100 °C
Ambient temperature range:	min. -20 °C to max. +60 °C
Operating fluid:	Hydraulic oil to DIN 51524 Part 1 and 2
Viscosity range:	min. 10 mm ² /s to max. 420 mm ² /s
Filtration:	Class 21/19/16 according to ISO 4406 or cleaner
MTTF _d :	150 years (see "Conditions and instructions for valves" in brochure 5.300)
Mounting position:	No orientation restrictions
Materials:	Valve body: free-cutting steel Poppet: hardened and ground steel Seals: NBR (standard) FKM (optional, media temperature range -20 °C to +120 °C) Back-up rings: PTFE Coil: steel / polyamide
Cavity:	10120
Weight:	Valve complete 0.37 kg Coil only 0.19 kg

Electrical data

Type of voltage:	DC solenoid, AC voltage is rectified using a bridge rectifier built into the coil
Current draw at 20 °C:	1.5 A at 12 V DC 0.8 A at 24 V DC
Voltage tolerance:	\pm 15% of the nominal voltage
Coil duty rating:	Continuous up to max. 115% of the nominal voltage at 60 °C ambient temperature
Response time:	Energized: approx. 35 ms De-energized: approx. 80 ms
Coil type:	Coil...-40-1836

DIMENSIONS



MODEL CODE

WSM10120Z - 01 M - C - N - 24 DG

Basic model

Directional poppet valve, metric

Type

01 = standard

Manual override

No details = without manual override

M = manual override

Body and ports

C = cartridge only

Seals

N = NBR (standard)

V = FKM

Coil voltage

DC voltages:

12 = 12 V DC

24 = 24 V DC

AC voltages (bridge rectifier built into the coil)

115 = 115 V AC

230 = 230 V AC

Other voltages on request

Coil connectors (type 40-1836)

DC: DG = DIN connector to EN 175301-803

DK = KOSTAL-threaded connection M27x1

DL = 2 flying leads, 457 mm long; 0.75 mm²

DN = Deutsch connector, 2-pole, axial

DT = AMP Junior Timer, 2-pole, radial

AC: AG = DIN connector to EN 175301-803

Other connectors on request

Standard models

Model code	Part No.
WSM10120Z-01-C-N-24DG	3179153
WSM10120Z-01-C-N-230AG	3179152

* Standard in-line bodies

Code	Part No.	Material	Ports	Pressure
R10120-01X-01	395234	Steel, zinc-plated	G 1/2	420 bar

For other connection housings, see brochure no. E 5.252.4

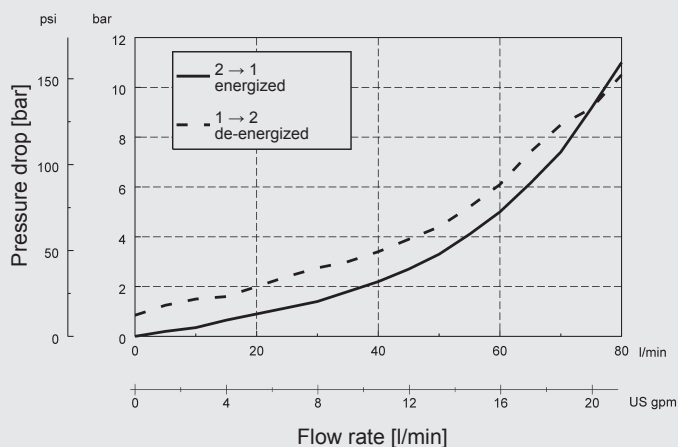
"Connection Housings for Cartridge Valves".

Seal kits

Code	Material	Part No.
SEAL KIT 10120-NBR	NBR	3382346
SEAL KIT 10120-FKM	FKM	3178281

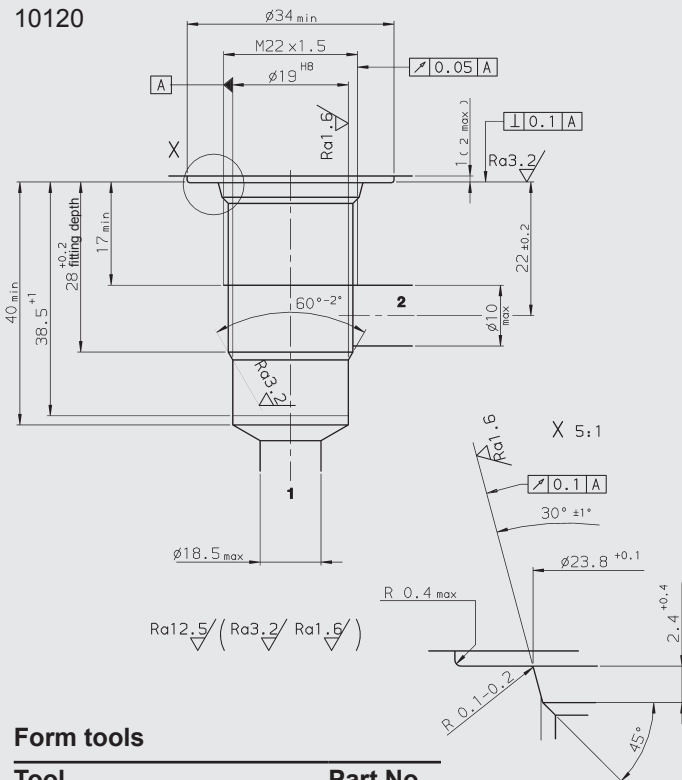
PERFORMANCE

Measured at $v = 33 \text{ mm}^2/\text{s}$ $T_{\text{Oil}} = 46^\circ\text{C}$



CAVITY

10120



Form tools

Tool	Part No.
Countersink (shank MK3)	170418
Reamer (shank MK2)	1014206

millimeter
subject to technical modifications