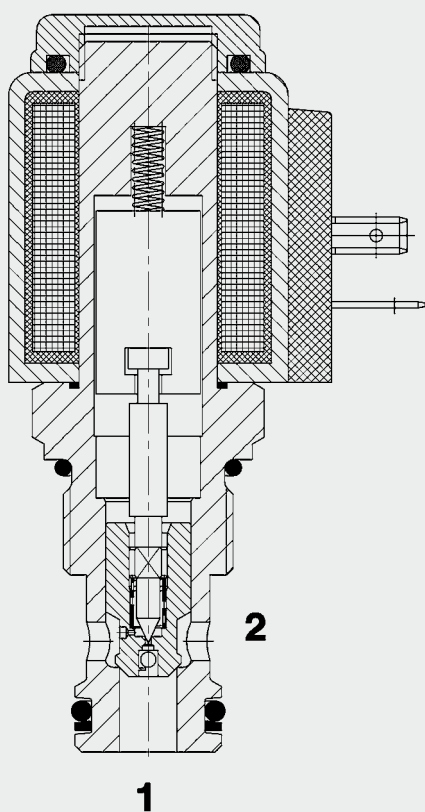


Up to 75 l/min
Up to 350 bar

FUNCTION



2/2 Solenoid Directional Valve Poppet Type, Pilot Operated Normally Closed (Reverse Flow) Metric Cartridge Valve – 350 bar

WSM10120ZR-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
- Wide variety of connectors available
- 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)	
Installation:	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
Cavity:	10120	
Weight:	Valve complete	0.37 kg
	Coil only	0.19 kg

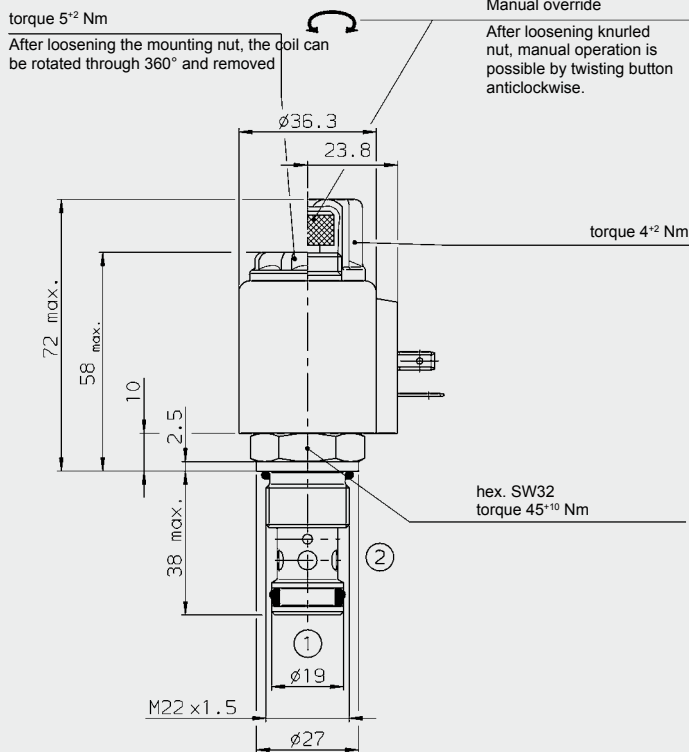
Electrical data

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	

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 the valve allows flow in both directions.

DIMENSIONS



MODEL CODE

WSM10120ZR - 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.
WSM10120ZR-01-C-N-24DG	3179188
WSM10120ZR-01-C-N-230AG	3179187

*Standard in-line bodies

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

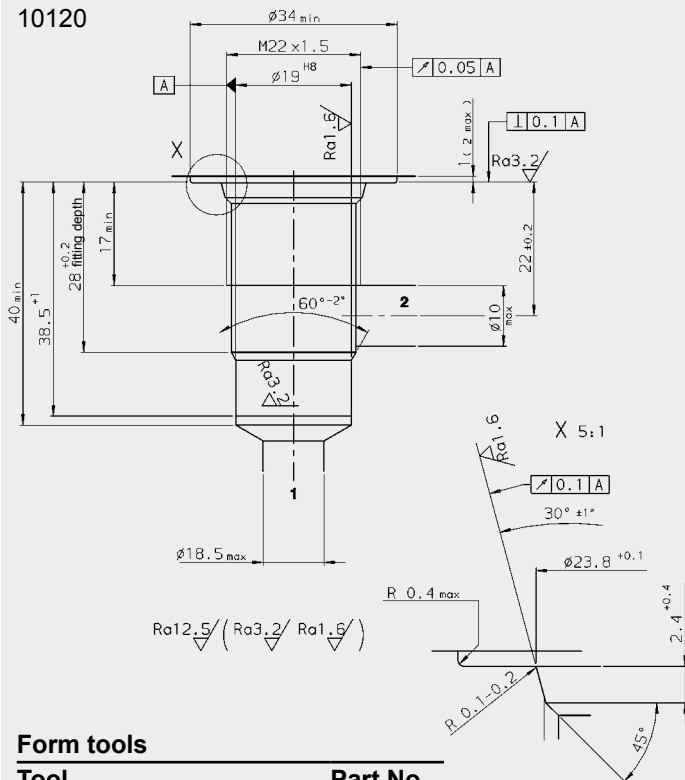
For other connection housings, see brochure no. E 5.252.

Seal kits

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

CAVITY

10120



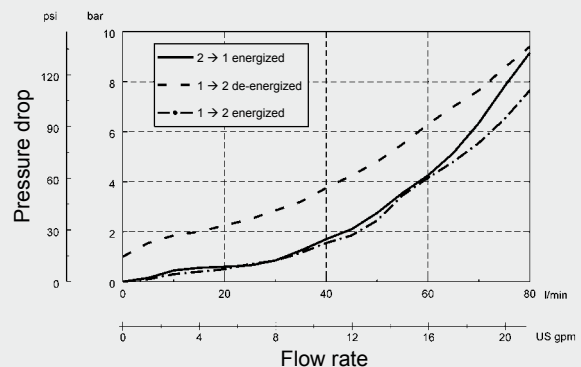
Form tools

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

millimeter
subject to technical modifications

PERFORMANCE

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



Note

The information in this brochure relates to the operating conditions and applications described. For applications or operating conditions not described, please contact the relevant technical department.
Subject to technical modifications.

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