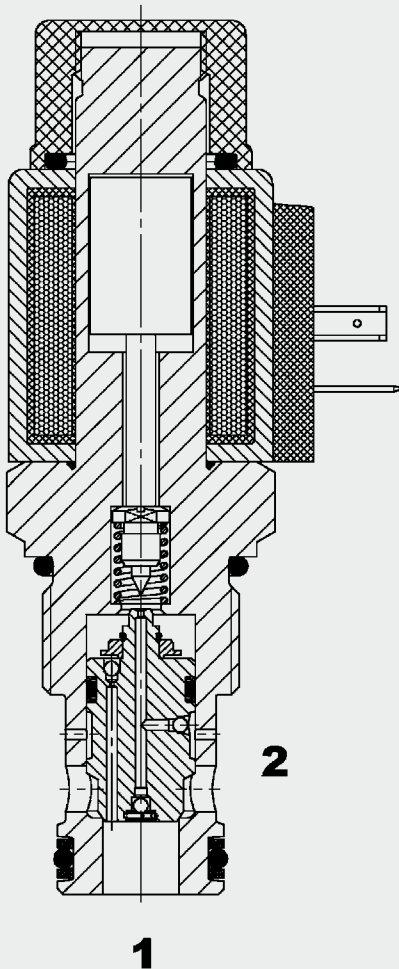


Up to 110 l/min
Up to 350 bar

FUNCTION



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

WSM12120V-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

SPECIFICATIONS

Operating pressure:	max. 350 bar	
Nominal flow:	max. 110 l/min	
Internal leakage:	leakage-free (max. 5 drops = 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. 7.4 mm ² /s to max. 420 mm ² /s	
Filtration:	Class 21/19/16 according to ISO 4406 or cleaner	
Installation:	No orientation restrictions	
MTTF _d :	150 years (see "Conditions and instructions for valves" in brochure 5.300)	
Material:	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:	12120	
Weight:	Valve complete	0.46 kg
	Coil only:	0.19 kg

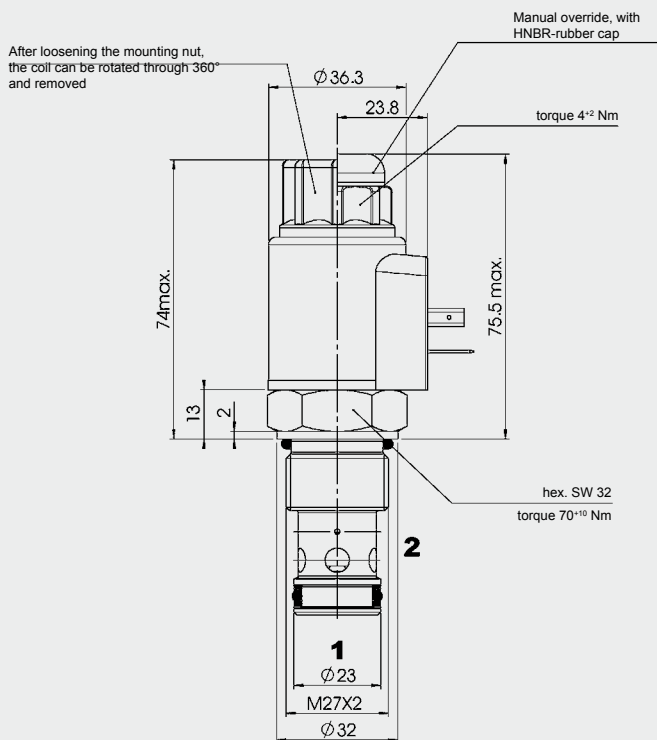
Electrical data

Response time:	Energized:	approx. 60 ms
	De-energized:	approx. 40 ms
	typical 24 V DC-coil	
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:	± 15 % of nominal voltage	
Coil duty rating:	Continuous up to	
	max. 115% of the nominal voltage at 60 °C ambient temperature	
Coil type:	Coil...-40-1836	

When the solenoid coil is de-energized, the valve is open in both directions.

When the solenoid coil is energized, the valve is closed in both directions.

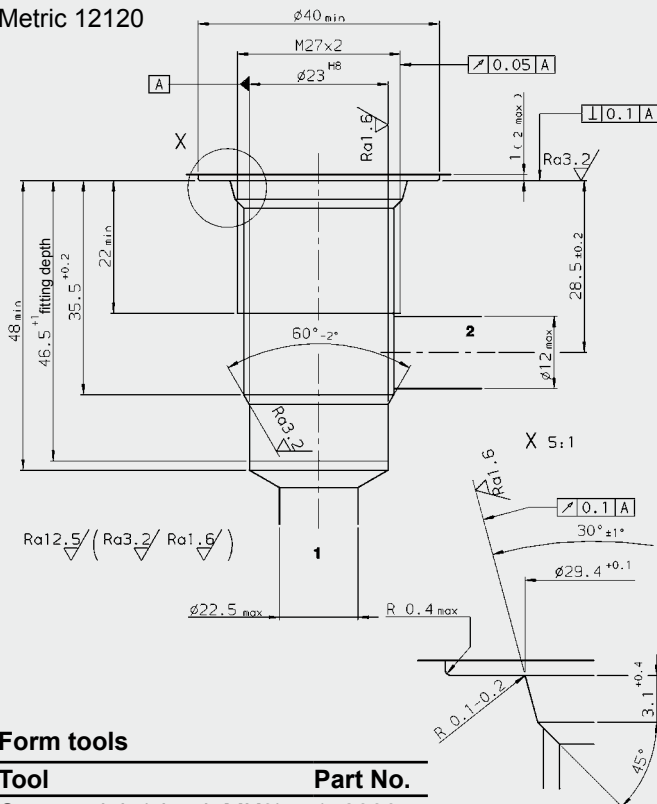
DIMENSIONS



millimeter
subject to technical modifications

CAVITY

Metric 12120



Form tools

Tool	Part No.
Countersink (shank MK3)	172880
Reamer	1014207

millimeter
subject to technical modifications

MODEL CODE

WSM12120V - 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 (optional)

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.
WSM12120V-01-C-N-12DG	3350065
WSM12120V-01-C-N-24DG	3350066

Other models on request

Standard in-line bodies

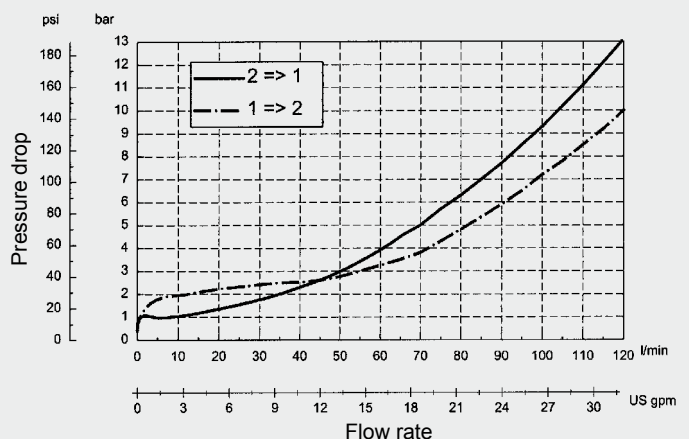
Code	Part No.	Material	Ports	Pressure
R12120-10X-01	396708	Steel, zinc-plated	G 3/4	max. 420 bar
R12120-10X-02	396707	Steel, zinc-plated	M27 x 2	max. 420 bar

Seal kits

Code	Material	Part No.
SEAL KIT 12120-NBR	NBR	3454001
SEAL KIT 12120-FKM	FKM	3454002

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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