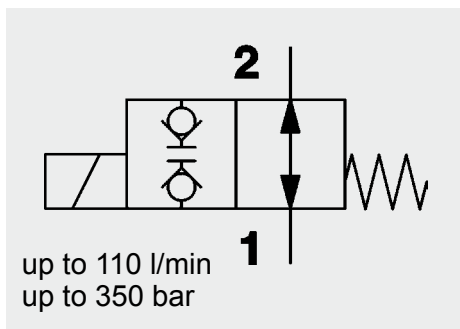


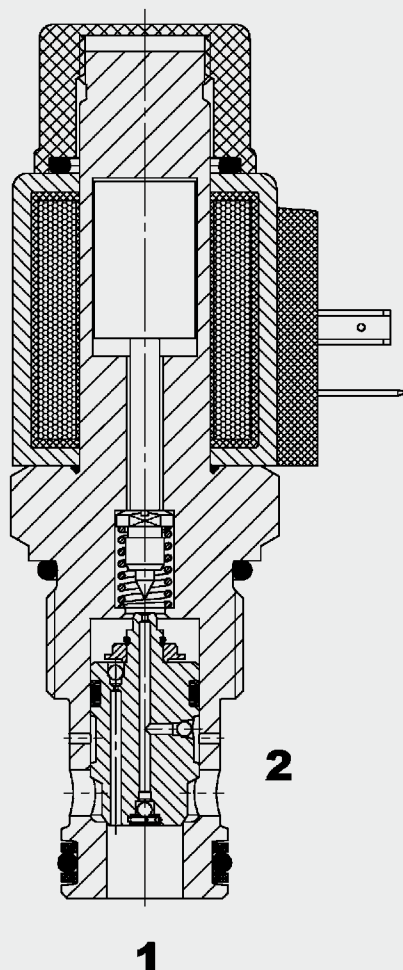
## 2/2 Solenoid Directional Valve Metric Cartridge – 350 bar

Normally open  
WSM12120V-01

Poppet Type - Pilot Operated



### FUNCTION



When the solenoid coil is not energized, the valve is open in both directions.

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

### FEATURES

- Exposed surfaces zinc-plated and corrosion-proof
- All valve parts made of high-strength steel with hardened and ground components to ensure minimal wear and extended service life
- Coil seals protect the solenoid system
- Wide variety of coils and connectors available
- Excellent switching performance by high power HYDAC solenoid

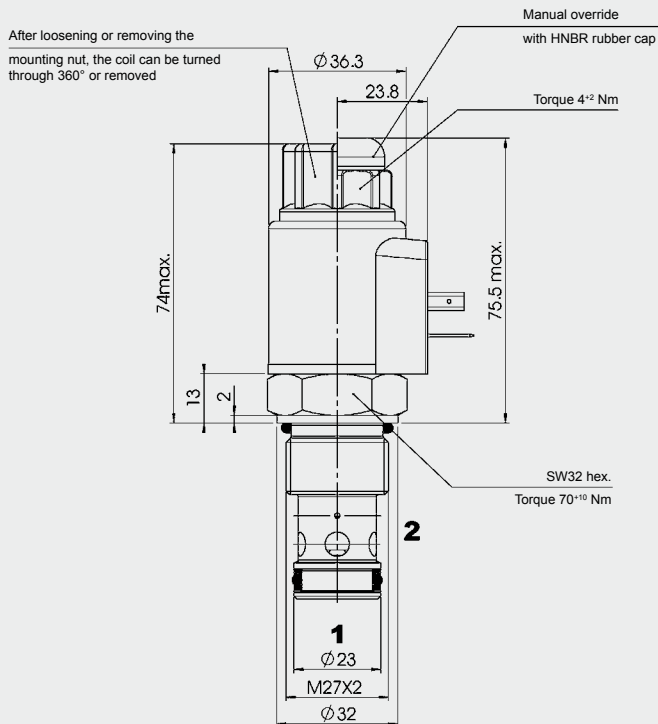
### SPECIFICATIONS

Operating pressure:	max. 350 bar	
Nominal flow:	max. 110 l/min	
Internal leakage:	leakage-free (max. 5 drops/min at 350 bar)	
Media operating temperature range:	min. -30 °C to max. +100 °C	
Ambient temperature range:	min. -30 °C to max. +60 °C	
Fluids:	Hydraulic oil to DIN 51524 Part 1 and 2	
Viscosity:	min 7.4 mm <sup>2</sup> /s to max. 420 mm <sup>2</sup> /s	
Filtration:	Class 21/19/16 according to ISO 4406 or cleaner	
Installation:	no orientation restrictions	
MTTF <sub>d</sub> :	150 years	
Material:	Valve body:	high tensile steel
	Piston:	hardened and ground steel
	Seals:	NBR (standard) FKM (optional, temperature range to -20 °C)
	Back-up rings:	PTFE
Cavity:	12120	
Weights:	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	
Coil duty rating:	Continuous up to 115% of nominal voltage at max. 60 °C ambient temperature	

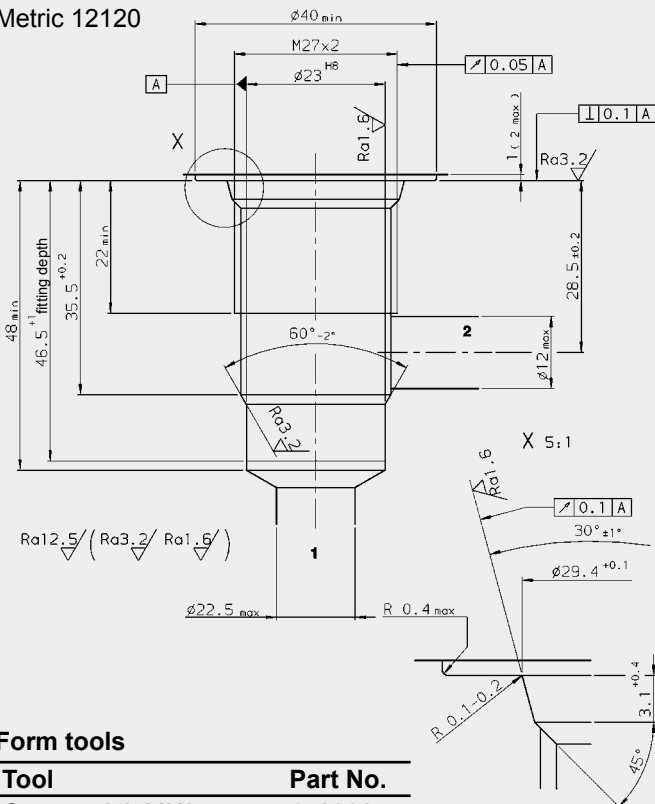
## DIMENSIONS



Millimeter  
Subject to technical modifications

## CAVITY

Metric 12120



Millimeter  
Subject to technical modifications

## Form tools

Tool	Part No.
Countersink MK3	172880
Reamer	1014207

## MODEL CODE

**WSM12120V - 01 M - C - N - 24 DG**

**Basic model** \_\_\_\_\_  
Directional poppet valve

**Type** \_\_\_\_\_  
01 = standard

**Option** \_\_\_\_\_  
Omission = no option  
M = manual override

**Body and Ports\*** \_\_\_\_\_  
C = Cartridge only

**Seals** \_\_\_\_\_  
N = NBR (standard)  
V = FKM (optional)

**Coil voltage** \_\_\_\_\_  
**DC:** 12 = 12 V DC  
24 = 24 V DC  
**AC:** 115 = 115 V AC (internally full wave rectified)  
230 = 230 V AC (internally full wave rectified)  
other voltages on request

**Coil connectors (Coil...40-1836)** \_\_\_\_\_  
**DC:** DG = DIN connector to EN175301-803  
DT = AMP Junior Timer, 2-pole, radial  
DK = KOSTAL threaded connector M27 x 1  
DL = Leadwires (2) - 475mm (18") long  
DN = Deutsch connector, 2 pole  
**AC:** AG = DIN connector to EN175301-803  
other connection types on request

## Standard models

Model code	Part No.
WSM12120V-01-C-N-12DG	3350065
WSM12120V-01-C-N-24DG	3350066

other models on request

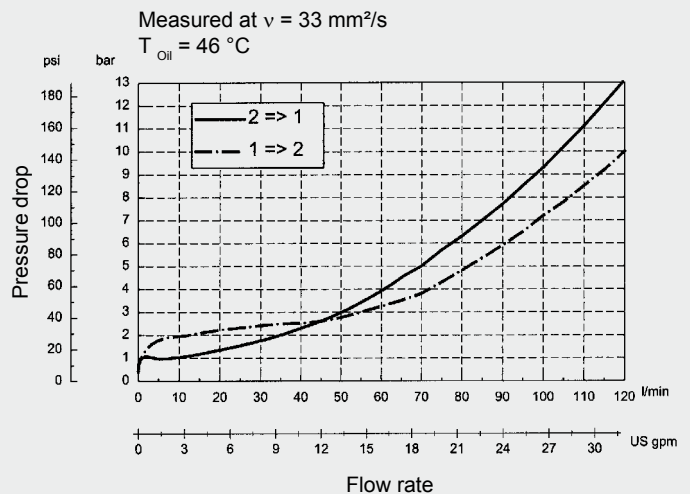
## \* Standard line bodies

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

## Seal kits

Code	Part No.
Seal kit 12120-NBR	3454001
Seal kit 12120-FKM	3454002

## PERFORMANCE



## 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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