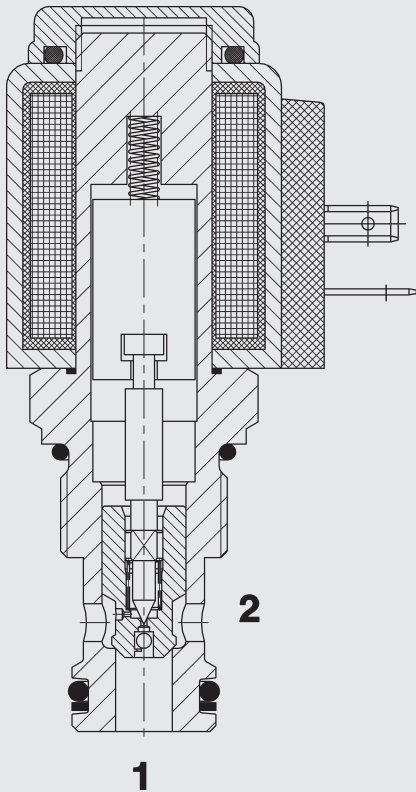


up to 75 l/min  
up to 350 bar

## FUNCTION



In the de-energized mode, the valve blocks flow from 2 to 1 and acts as a check allowing the flow from 1 to 2.

When energized, the valve allows flow in both directions.

## 2/2 Solenoid Directional Valve Poppet Type - Pilot Operated Normally Closed (Reverse Flow) Cartridge Valve - 350 bar

WSM10120ZR-01

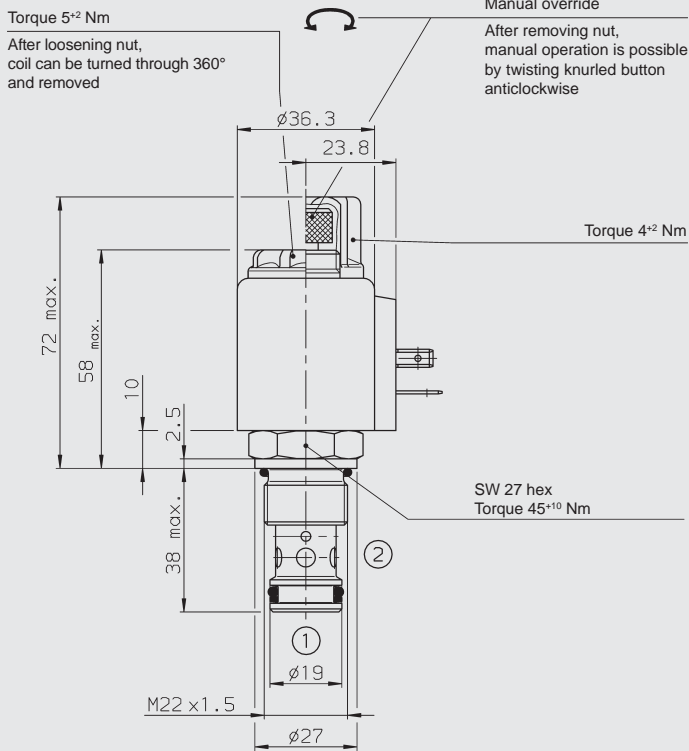
### FEATURES

- All 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
- Waterproof design standard
- Wide variety of connectors available
- Rigid design using one-piece body minimizes the effect of eccentricity and maximizes reliability
- Excellent switching performance by high power HYDAC solenoid
- Low pressure drop by CFD optimized flow-path

### SPECIFICATIONS

Operating pressure:	Max. 350 bar
Nominal flow:	Max. 75 l/min
Internal leakage:	Leakage-free
Media operating temp. range:	-20 °C to +120 °C
Ambient temperature range:	-20 °C to +60 °C
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
Minimum pull-in voltage:	+/-15% of nominal voltage
Coil duty rating:	Continuous up to 115% of nominal voltage at 60 °C ambient temperature
Response time:	Energized: approx. 35 ms De-energized: approx. 80 ms (typical 24 V DC-coil)
Fluids:	Hydraulic oil to DIN 51524 Part 1 and 2
Viscosity:	10 mm <sup>2</sup> /s to 420 mm <sup>2</sup> /s is recommended
Filtration:	ISO 4406 Class 21/19/16 or cleaner
Installation:	Optional
Materials:	Valve body: high tensile steel Piston: hardened and ground steel Seals: NBR (standard) FKM (optional) back-up ring in PTFE Coil: Steel/Polyamide
Cavity:	10120
Weights:	Valve complete: 0.37 kg Coil only: 0.19 kg

## DIMENSIONS



millimeter  
subject to technical modifications

## MODEL CODE

**WSM 10120 ZR - 01 M - C - N - 24 DG**

**Designation** \_\_\_\_\_  
(Directional poppet valve, metric)

**Cavity** \_\_\_\_\_  
10120 = 2-way cavity

**Function code** \_\_\_\_\_  
**Type** \_\_\_\_\_

01 = standard

**Manual override** \_\_\_\_\_  
omission = no option  
M = manual override

**Body and ports** \_\_\_\_\_  
C = cartridge only

**Seals** \_\_\_\_\_  
N = NBR  
V = FKM

**Coil voltage** \_\_\_\_\_

**DC**

12 = 12 V DC

24 = 24 V DC

AC (Internally full wave rectified)

24 = 24 V AC

115 = 115 V AC

230 = 230 V AC

other voltages on request

**Coil connectors**

**DC:** DG = DIN connector to EN 175301-803

DL = Leadwires (2) - 457 mm, 18" long

DW = Weather Pack connector on leadwires - 2mm (9.5") long

DT = AMP Junior Timer, 2-pole, radial

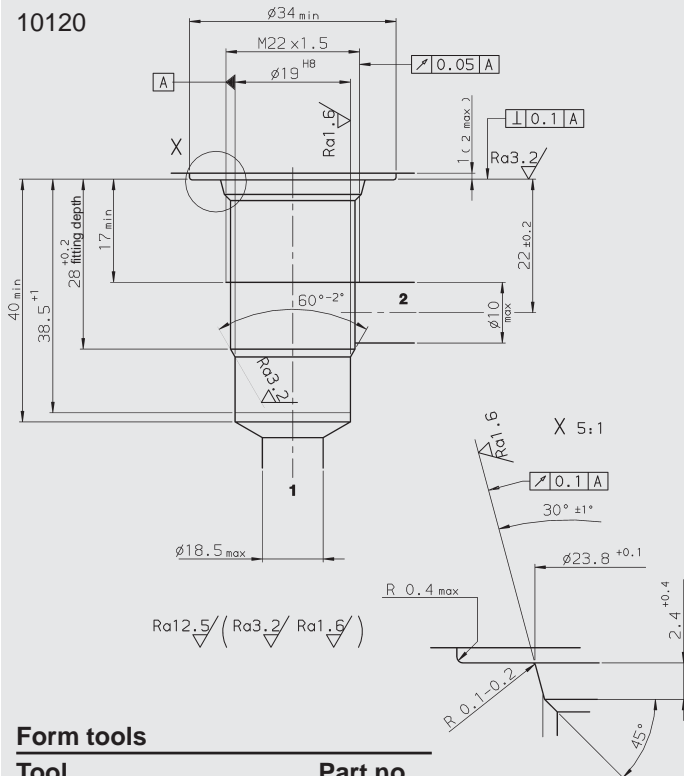
DK = KOSTAL threaded connection M27x1

**AC:** AG = DIN connector to EN 175301-803

other connection types on request

## CAVITY

10120



millimeter  
subject to technical modifications

## Standard models

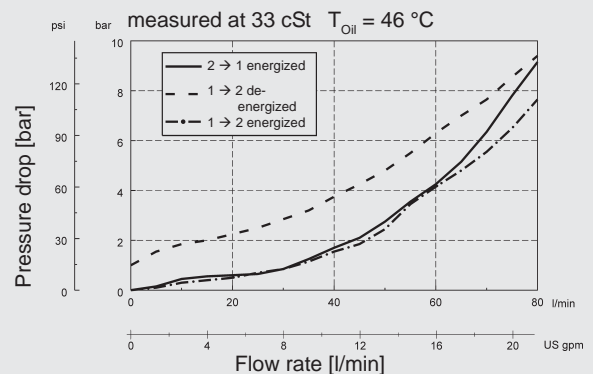
Model code	Stock no.
WSM10120ZR-01-C-N-24DG	3179188
WSM10120ZR-01-C-N-230AG	3179187

## Inline connection housings

Code	Stock no.	Material	Ports
R10120-01X-01	395234	Steel, zinc-plated	G 1/2

For other connection housings, see brochure no. E 5.252. "Connection Housings for Cartridge Valves".

## 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.

**HYDAC Fluidtechnik GmbH**

Justus-von-Liebig-Str.

**D-66280 Sulzbach/Saar**

Tel: 0 68 97 /509-01

Telefax: 0 68 97 /509-598

E-Mail: flutec@hydac.com

## Form tools

Tool	Part no.
Rougher (shank MK3)	170418
Finisher (shank MK2)	1014206