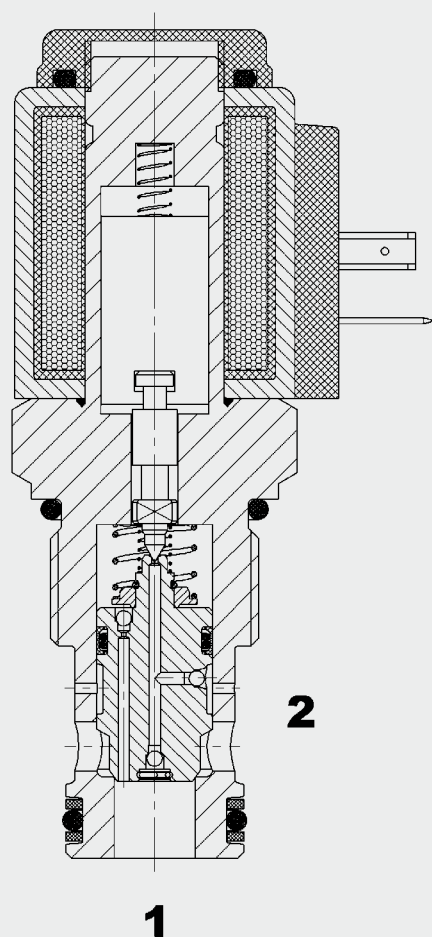


## FUNCTION



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

Normally Closed

WSM12120W

Poppet Type - Pilot Operated

## 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

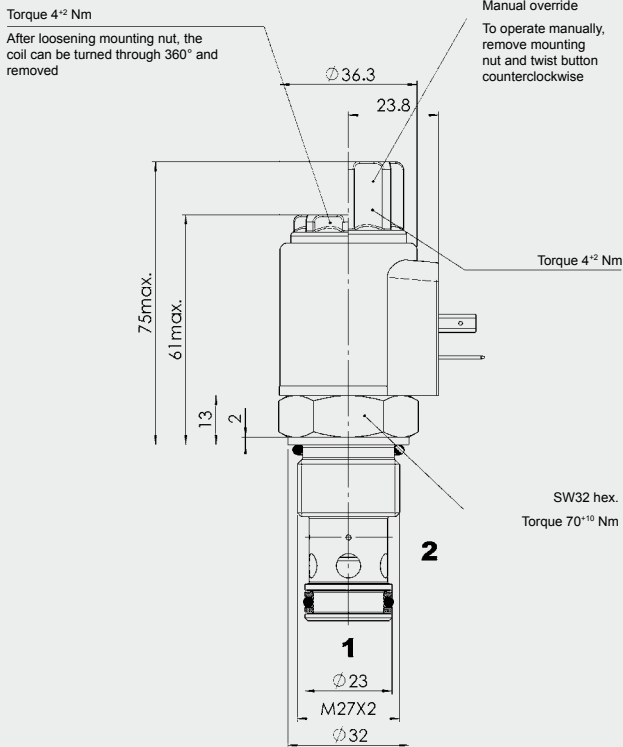
Operating pressure:	max. 350 bar
Nominal flow:	max. 110 l/min
Internal leakage:	leakage-free (max. 5 drops/min at 350 bar)
Media operating temperature range:	min. -20 °C to max. +100 °C
Ambient temperature range:	min. -20 °C to max. +60 °C
Fluids:	hydraulic oil to DIN 51524 Part 1 and 2
Viscosity:	min 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
Material:	Valve body: high tensile steel Piston: hardened and ground steel Seals: NBR (standard) FKM (optional) Back-up rings: PTFE
Cavity:	12120
Weights:	Valve complete: 0.46 kg Coil only: 0.19 kg

## Electrics:

Response time:	Energized: approx. 30 ms De-energized: approx. 70 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

When the solenoid coil is not energized, the valve is closed in both directions.  
 When the solenoid coil is energized, there is free flow through the valve in both directions.

## DIMENSIONS



## MODEL CODE

**WSM12120W - 01 M - C - N - 24 DG**

**Basic model**  
 Directional poppet valve,  
 metric cavity, Function code W

**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**  
**DC:** DG = DIN connector to EN175301-803  
 DT = AMP Junior Timer, 2 pole, radial  
 DK = KOSTAL threaded connector M27 x 1  
 DL = Leadwires (2) - 457 mm (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.
WSM12120W-01-C-N-12DG	3354399
WSM12120W-01-C-N-24DG	3354400

other models on request

## \* Standard line bodies

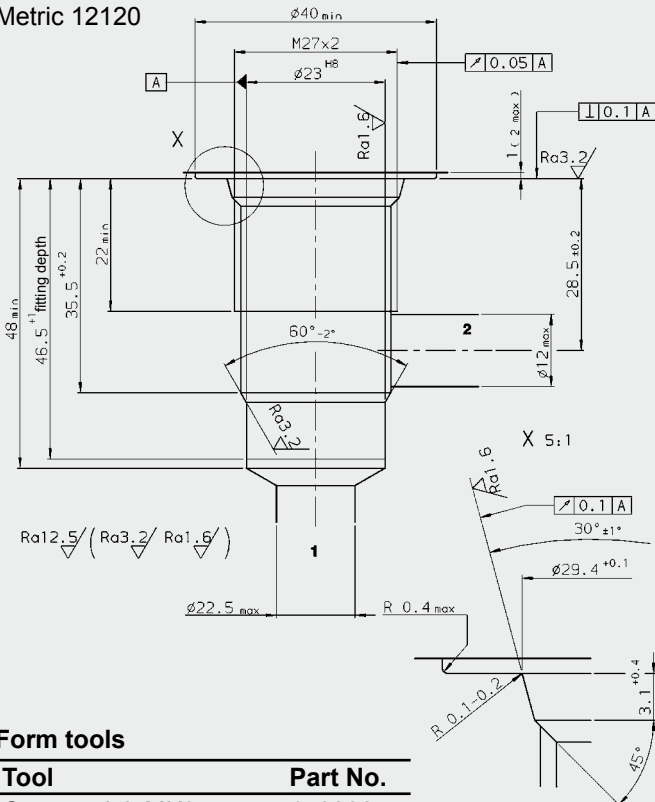
Code	Part No.	Material	Ports
R12120-10X-01	396708	Steel, zinc-plated	G 3/4
R12120-10X-02	396707	Steel, zinc-plated	M27 x 2

## Seal kits

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

## CAVITY

Metric 12120

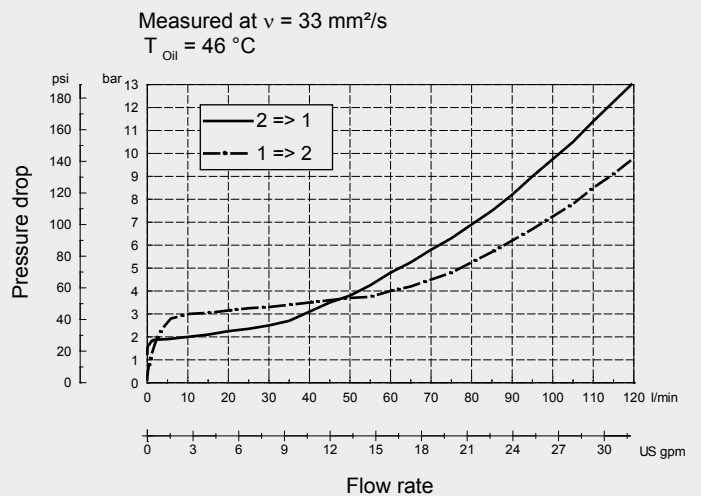


## Form tools

Tool	Part No.
Countersink MK3	172880
Reamer	1014207

Millimeter  
 Subject to technical modifications

## 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  
 Fax: 0 68 97 /509-598  
 E-Mail: flutec@hydac.com