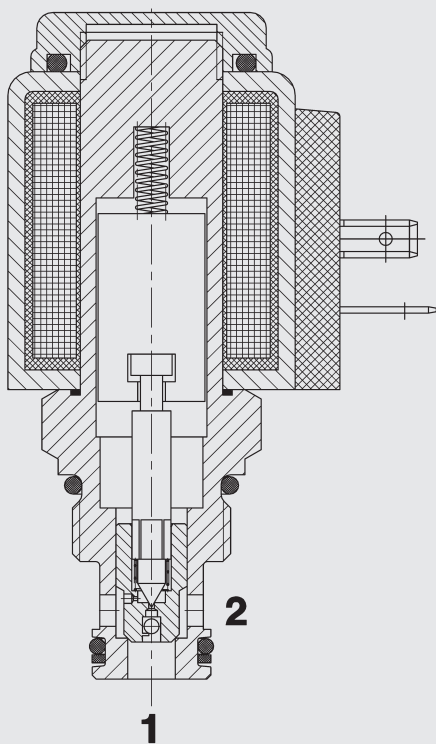


Up to 40 l/min  
Up to 350 bar

## FUNCTION



When the solenoid coil is not energized, the valve is closed from port 2 to port 1. In the reverse direction there is free flow through the valve. The valve piston opens at a differential pressure of approx. 1.5 bar (check function). When energized the valve allows flow in both directions.

## 2/2 Solenoid Directional Valve Poppet Type, Pilot Operated Normally Closed (Reverse Flow) Metric Cartridge Valve – 350 bar WSM06020ZR-01

### FEATURES

- Excellent switching performance by high power HYDAC solenoid
- Hardened and ground control piston to ensure minimal wear and extended service life
- Low pressure drop due to CFD optimized flow path
- Wide variety of connectors available
- External surfaces zinc-plated and corrosion-proof
- Coil seals protect the solenoid system
- Compact design enables space-saving installation in connection housings and control blocks

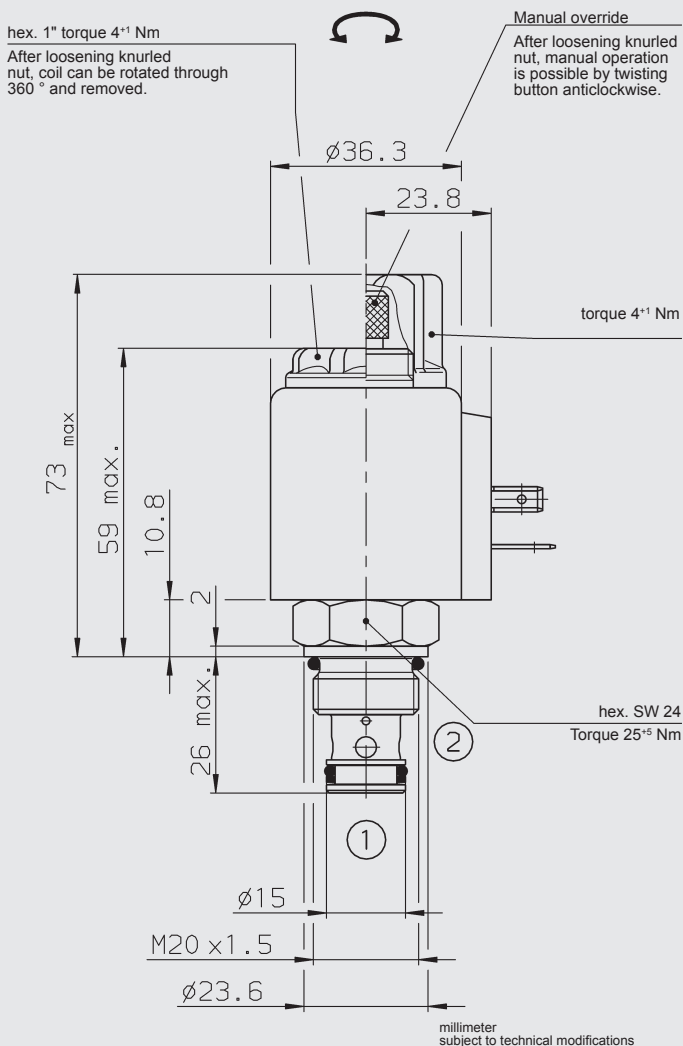
### SPECIFICATIONS

Operating pressure:	max. 350 bar
Nominal flow:	max. 40 l/min
Internal leakage:	Leakage-free (max. 5 drops $\approx$ 0,25 cm <sup>3</sup> /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 <sup>2</sup> /s to max. 420 mm <sup>2</sup> /s
Filtration:	Class 21/19/16 according to ISO 4406 or cleaner
MTTF <sub>d</sub> :	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 Coil: steel / polyamide
Cavity:	06020
Weight:	Valve complete 0.33 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. 50 ms
Coil type:	Coil...-40-1836

## DIMENSIONS



## MODEL CODE

**WSM06020ZR - 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 EN175301-803  
DT = AMP Junior Timer, 2 pole, radial  
DK = Kostal threaded connection M27 x 1  
DL = 2 flying leads, 475 mm long  
DN = Deutsch connector, axial

AC: AG = DIN connector to EN175301-803  
Other connectors on request

## Standard models

Model code	Part No.
WSM06020ZR-01-C-N-24DG	3055535
WSM06020ZR-01-C-N-230AG	3055533

## Standard in-line bodies

Code	Part No.	Material	Ports
R06020-01X-01	275266	Steel, zinc-plated	G 3/8

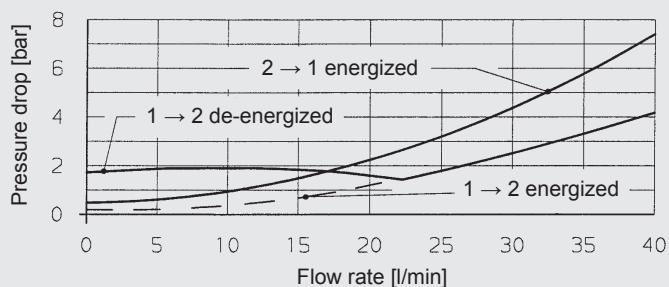
Other housings on request

## Seal kits

Code	Material	Part No.
SEAL KIT 06020-NBR	NBR	3119017
SEAL KIT 06020-FKM	FKM	3262477

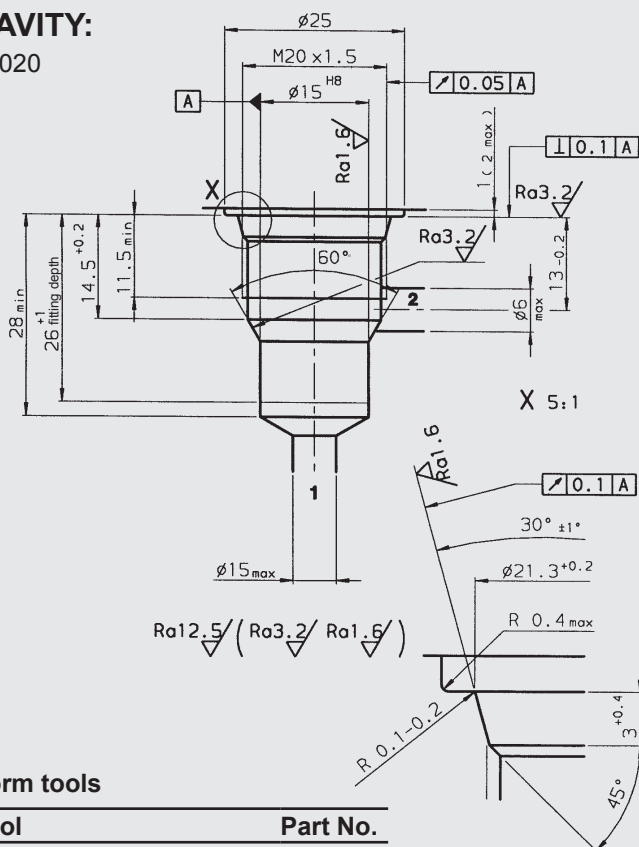
## PERFORMANCE

Measured at  $v = 34 \text{ mm}^2/\text{s}$ ,  $T_{\text{oil}} = 46^\circ\text{C}$



## CAVITY:

06020



## Form tools

Tool	Part No.
Countersink (shank MK3)	170033
Reamer (shank MK2)	1000768

millimeter  
subject to technical modifications