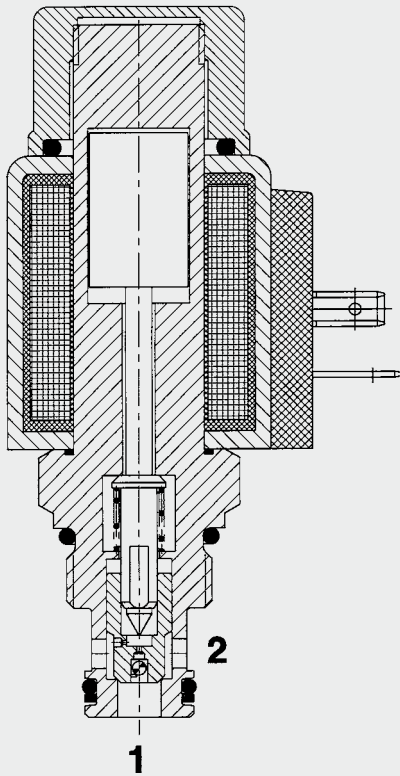


Up to 40 l/min  
Up to 350 bar

## FUNCTION



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

When the solenoid coil is energized, the valve is closed from port 2 to port 1.

In the reverse direction there is free flow through the valve when the hydraulic force on the piston exceeds the solenoid force (approx. 9 to 20 bar).

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

WSM06020YR-01

### FEATURES

- Excellent switching performance by high power HYDAC solenoid
- Hardened and ground internal valve components to ensure minimal wear and extended service life
- External surfaces zinc-plated and corrosion-proof
- Coil seals protect the solenoid system
- Wide variety of connectors available
- Low pressure drop due to CFD optimized flow path

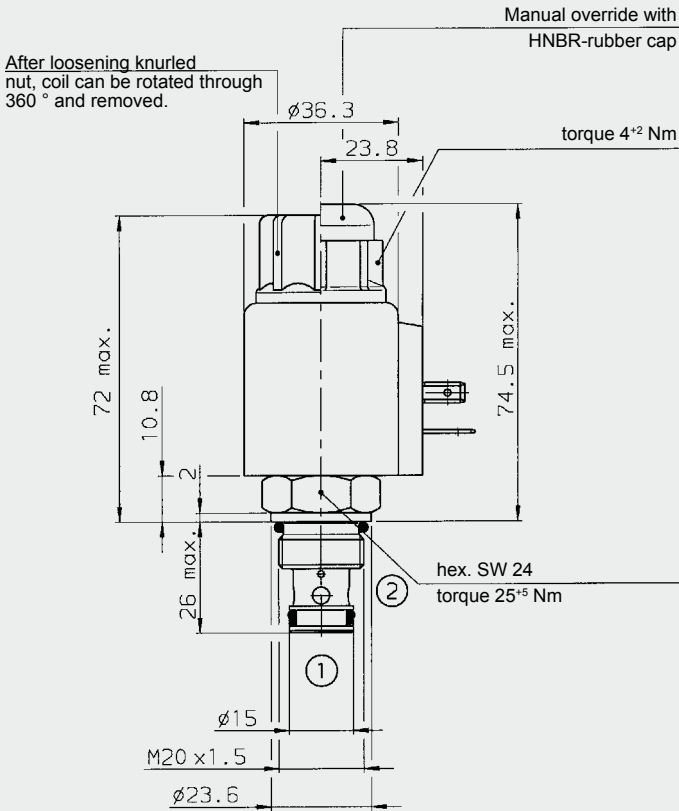
### SPECIFICATIONS

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. 50 ms
	de-energized:	approx. 35 ms
Coil type:	Coil...-40-1836	

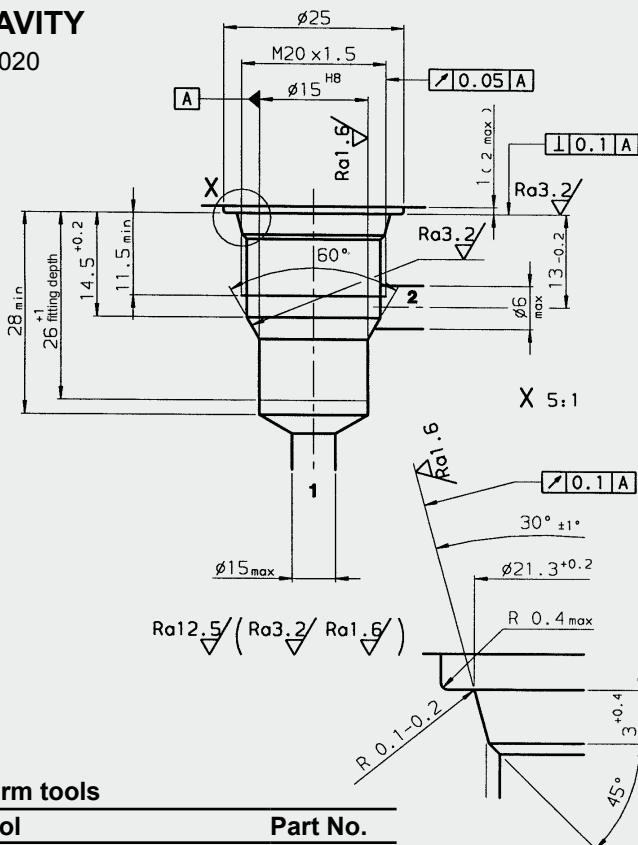
## DIMENSIONS



Subject to technical modifications.

## CAVITY

06020



## Form tools

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

Subject to technical modifications.

## MODEL CODE

**WSM06020YR - 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, 0.75 mm<sup>2</sup>  
DN = Deutsch connector, axial  
AC: AG = DIN connector to EN175301-803

Other connectors on request

## Standard models

Model code	Part No.
WSM06020YR-01-C-N-24DG	3056228
WSM06020YR-01-C-N-230AG	3056226

## \*Standard in-line bodies

Code	Part No.	Material	Ports	Pressure
R06020-01X-01	275266	Steel, zinc-plated	G 3/8	max. 420 bar

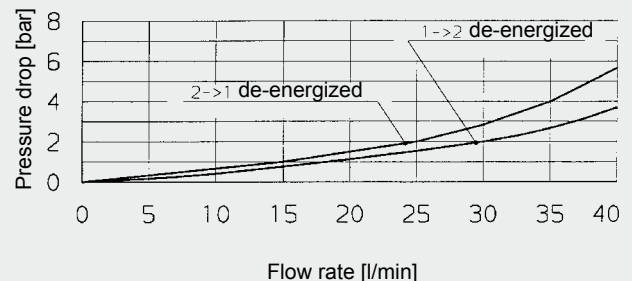
For other line bodies, see brochure no. E 5.252.

## Seal kits

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

## PERFORMANCE

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



## 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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