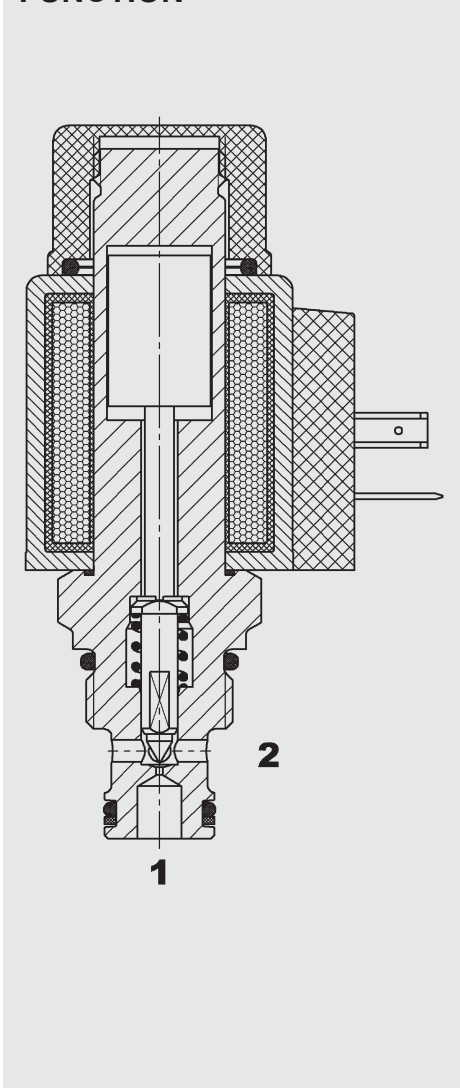


## FUNCTION



The WSM06020Y-70 is suitable for particularly low flow rates and is specially designed for use as a pilot valve.

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 the valve will allow flow when the hydraulic force exceeds the solenoid force (from approx. 300 bar depending on operating voltage and coil temperature).

## 2/2 Solenoid Directional Valve Poppet Type, Direct-Acting Normally Open Metric Cartridge Valve – 350 bar WSM06020Y-70

### FEATURES

- Version -70 for particularly low flow rates
- External surfaces zinc-plated and corrosion-proof
- Hardened and ground internal valve components to ensure minimal wear and extended service life
- Coil seals protect the solenoid system
- Wide variety of connectors available
- Excellent switching performance by high power HYDAC solenoid

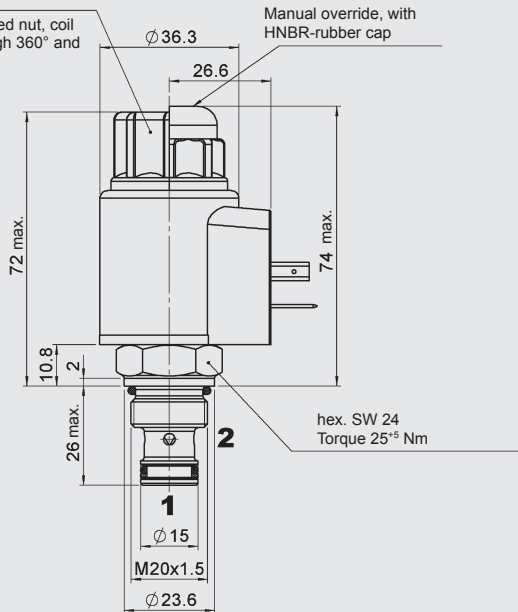
### SPECIFICATIONS

Operating pressure:	max. 350 bar	
Nominal flow:	max. 3 l/min	
Internal leakage:	Leakage-free	
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. 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	
MTTF <sub>d</sub> :	150 years (see "Conditions and instructions for valves" in brochure 5.300)	
Installation:	No orientation restrictions	
Materials:	Valve body:	high tensile steel
	Poppet:	Hardened and ground steel
	Seals:	NBR (standard) FKM (optional, media temperature range -20 °C to +120 °C)
	Back-up rings:	PTFE
Cavity:	06020	
Weight:	Complete valve	0.33 kg
	Coil only	0.19 kg
<b>Electrical data:</b>		
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 the nominal voltage	
Coil duty rating:	Continuous up to max. 115% of the nominal voltage at 60 °C ambient temperature	
Response time:	On:	approx. 30 ms
	Off:	approx. 20 ms
Coil type:	Coil ...-40-1836	

## DIMENSIONS

torque 4<sup>+1</sup> Nm

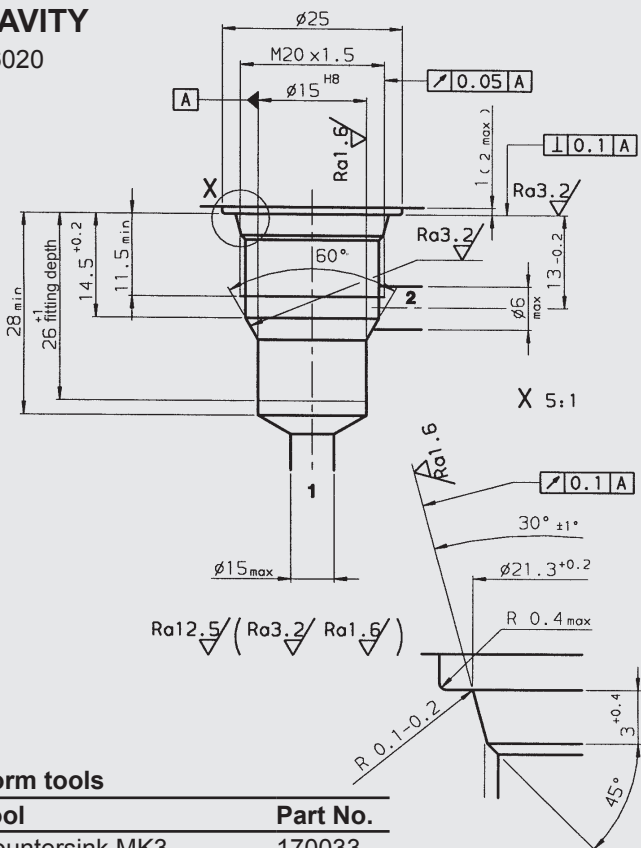
After loosening knurled nut, coil can be rotated through 360° and removed.



millimeter  
subject to technical modifications

## CAVITY

06020



millimeter  
subject to technical modifications

## Form tools

Tool	Part No.
Countersink MK3	170033
Reamer MK2	1000768

## MODEL CODE

**WSM06020Y - 70 M - C - N - 24 DG**

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

**Type** \_\_\_\_\_  
70 = standard  
(for particularly low flow rates)

**Manual override** \_\_\_\_\_  
no details = without manual override  
M = manual override

**Body and ports** \_\_\_\_\_  
C = cartridge only  
Combinations with body on request

**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 EN 175301-803  
DK = KOSTAL threaded connection M27x1  
DL = 2 flying leads, 457 mm long, 0.75 mm<sup>2</sup>  
DN = Deutsch connector, 2-pole, axial  
DT = AMP Junior Timer, 2-pole, radial

AC: AG = DIN connector to EN 175301-803  
Other connectors on request

## Standard models

Model code	Part No.
WSM06020Y-70-C-N-12DG	3581218
WSM06020Y-70-C-N-24DG	3534259
WSM06020Y-70-C-N-230AG	3534260

Other models on request

## Standard in-line bodies

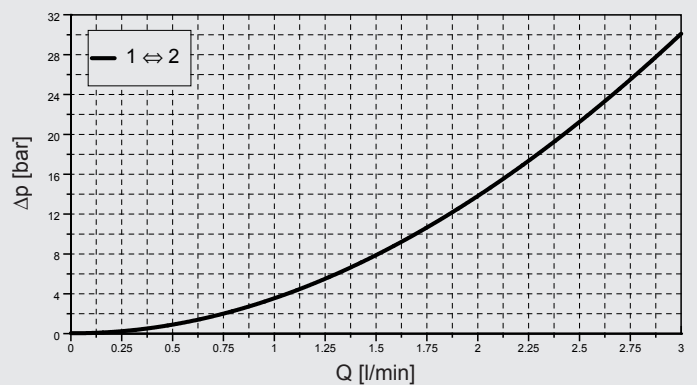
Code	Part No.	Material	Ports	Pressure
R06020-01X-01	275266	Steel, zinc-plated	G 3/8	420 bar

## 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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