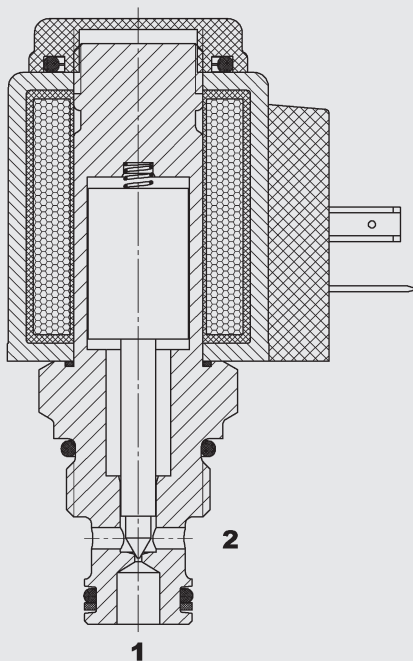


up to 3 l/min
up to 350 bar

FUNCTION



The directional valve is a direct-acting poppet valve, which is particularly suitable for low flow rates.

When the coil is not energized, the valve is closed from port 2 to port 1. In the opposite direction, the valve opens at a pressure differential of approx. 60 bar. When the coil is energized, the valve allows flow from port 2 to 1.

2/2 solenoid directional valve poppet type, direct-acting normally closed Metric Cartridge – 350 bar WSM06020Z-70

FEATURES

- The valve is specially designed for use as a pilot valve
- Coil seals protect the solenoid system
- Wide variety of connectors available
- Excellent switching performance by high power HYDAC solenoid
- Exposed surfaces zinc-nickel plated for increased corrosion protection (1.000 h Salt spray test)

SPECIFICATIONS*

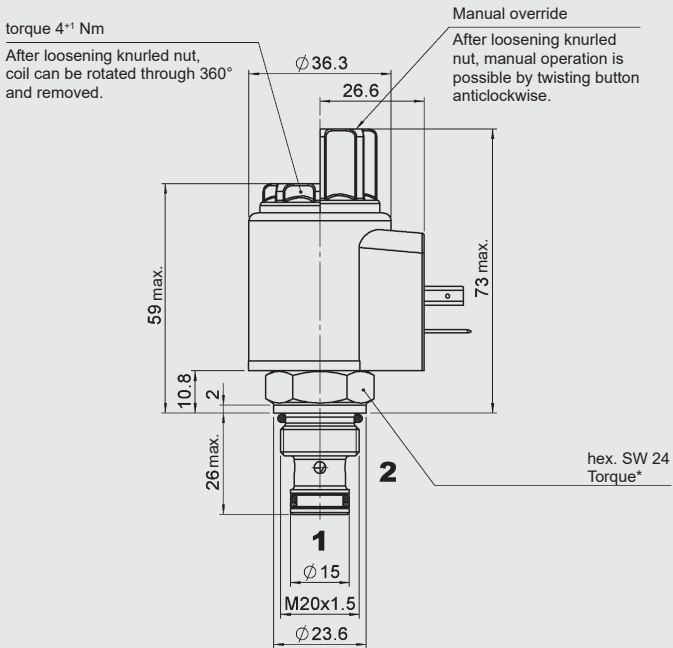
Operating pressure:	max. 350 bar
Nominal flow:	max. 3 l/min
Internal leakage:	Leakage-free max. 5 drops/min (0,25 cm ³ /min) at 350 bar
Media operating temperature range:	min. -20 °C to max. +100 °C
Ambient temperature range:	min. -20 °C to max. + 60 °C
Operating fluid:	Hydraulic oil to DIN 51524 Part 1, 2 and 3
Viscosity range:	min. 7.4 mm ² /s to max. 420 mm ² /s
Filtration: (according to ISO 4406)	< 210 bar: min. 20/18/15 > 210 bar: min. 18/16/13
MTTF _d :	150 - 1200 years, according to DIN EN ISO 13849-1
Installation:	No orientation restrictions
Materials:	Valve body: 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

Electrical data

Type of voltage:	DC: direct current solenoid AC: alternating current solenoid with 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: (at P _{max} , Q _{max} , v = 33 mm ² /s)	energized: approx. 20 ms de-energized: approx. 30 ms
Coil type:	Coil ...-40-1836

* see "Conditions and instructions for valves" in brochure 53.000

DIMENSIONS

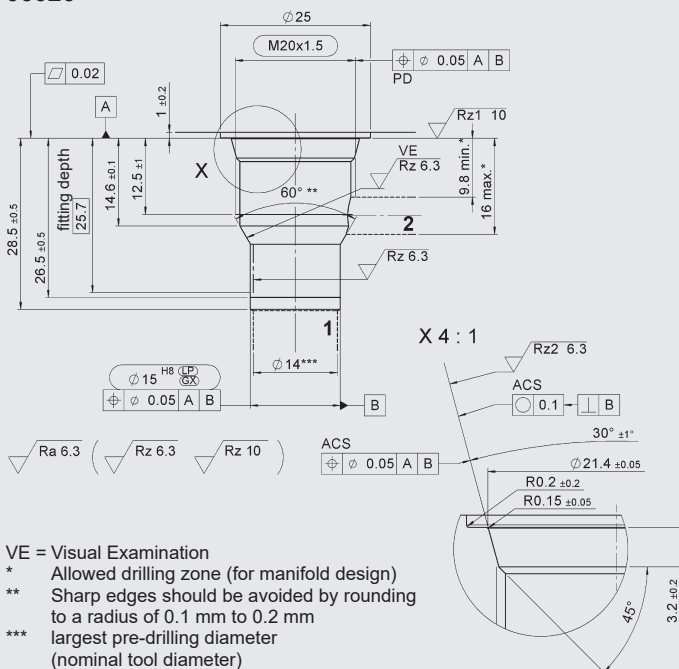


*Torque:
Steel manifold
(ultimate tensile strength < 360 N/mm²): 55 Nm
Aluminium manifold
(ultimate tensile strength < 330 N/mm²): 42 Nm
(tool acc. to DIN EN ISO 6789,
tool type II class A or B)
For further informations see brochure No. 53.000
"Conditions and instructions for valves"

millimeter
subject to technical modifications

CAVITY

06020



Form tools

Tool	Part No.
Countersink MK3	170033
Reamer MK2	1000768

millimeter
subject to technical modifications

MODEL CODE

WSM06020Z - 70 M - C - N - 24 DG

Basic model

2/2-directional poppet valve, metric

Type

70 = 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 type A to EN 175301-803

DK = KOSTAL threaded connection M27x1

DL = 2 flying leads, 457 mm long, 0.75 mm²

DN = Deutsch connector DT04-2P, 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.
WSM06020Z-70-C-N-12DG	3581216
WSM06020Z-70-C-N-24DG	3534256
WSM06020Z-70-C-N-230AG	3534257

Other models on request

Standard in-line bodies

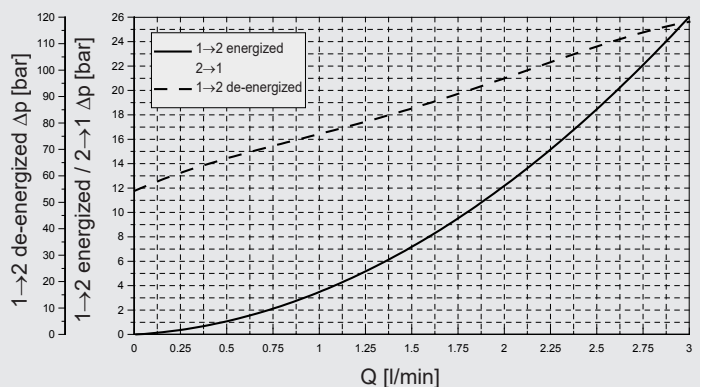
Code	Part No.	Material	Ports	Pressure
R06020-01X-01	275266	Steel, zinc-plated	G3/8"	350 bar

Seal kits

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

TYPICAL PERFORMANCE

Measured at $v = 33 \text{ mm}^2/\text{s}$, $T_{\text{oil}} = 46 \text{ °C}$



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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