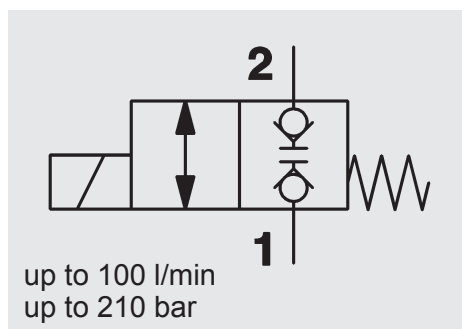
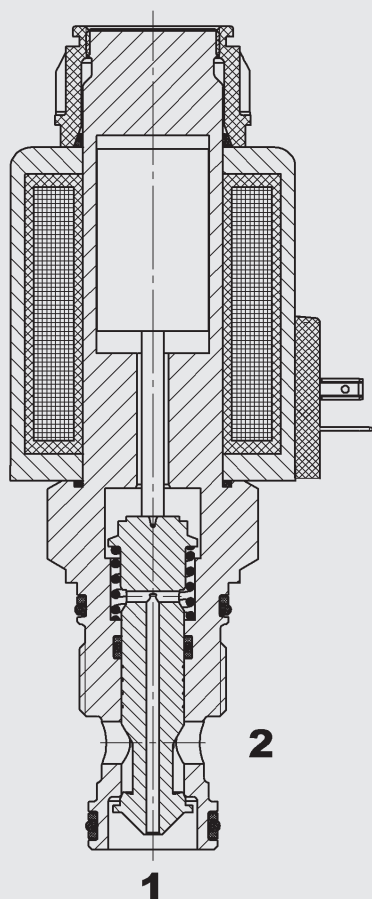




FUNCTION



The WSM16520W is a direct acting directional poppet valve – in the normal position, the valve is closed in both directions. When the solenoid is energized, the valve opens and allows flow in both directions.

Caution: No orifice is permitted just before port 1. Only "diffuser orifices" may be used.

2/2 Solenoid Directional Valve Poppet Type, Direct Acting Normally Closed Metric Cartridge – 210 bar WSM16520W

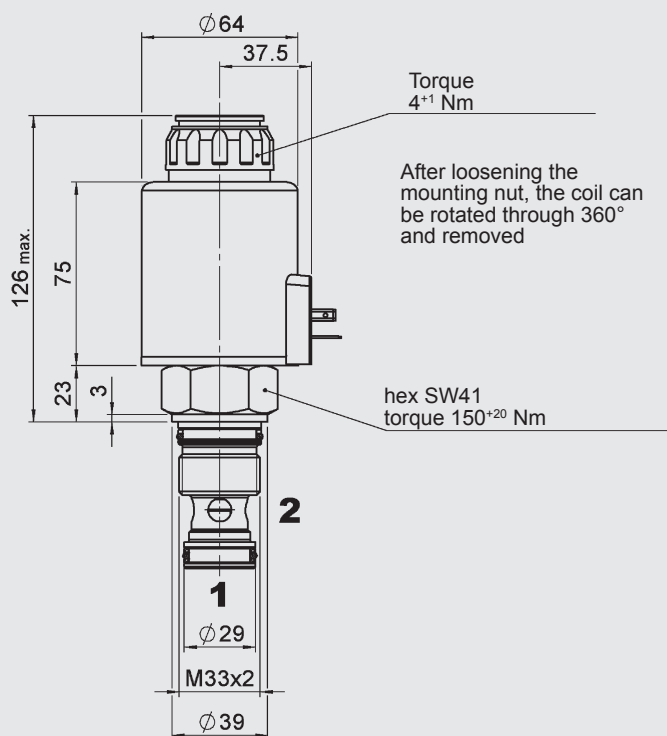
FEATURES

- Main application is in fast-switching applications e.g. in injection moulding machines
- High flow with low Δp
- External surfaces zinc-plated and corrosion-proof
- Hardened and ground internal valve components to ensure minimal wear and extended service life
- Excellent stability throughout the entire flow range
- Excellent dynamic performance
- Coil seals protect the solenoid system
- Low pressure drop due to CFD optimized flow path

SPECIFICATIONS

Operating pressure:	max. 210 bar
Nominal flow:	max. 100 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. +50 °C
Operating fluid:	Hydraulic oil to DIN 51524 Part 1 and 2
Viscosity range:	min. 7.4 mm ² /s to max. 420 mm ² /s
Filtration:	Class 21/19/16 according to ISO 4406 or cleaner
MTTF _d :	150 years (see "Conditions and instructions for valves" in brochure 5.300)
Installation:	No orientation restrictions
Materials:	Valve body: hardened steel Piston: hardened and ground steel Seals: NBR (standard) FKM (optional) Back-up rings: PTFE
Cavity:	Metric 16520
Weight:	Valve complete 2.05 kg Coil only 1.05 kg
Electrical data:	
Type of voltage:	DC solenoid, AC voltage can be rectified using a bridge rectifier, e.g. Z4 (not supplied)
Current draw at 20 °C:	2.9 A at 12 V DC; 1.45 A at 24 V DC
Voltage tolerance:	± 15% of nominal
Coil duty rating:	Continuous up to max. 115% of the nominal voltage at 50 °C ambient temperature
Response time:	On: approx. 70 ms Off: approx. 50 ms
Coil type:	Coil... –75-3164

DIMENSIONS



millimeter (inch)
subject to technical modifications

MODEL CODE

WSM 16520 W - 01 M - C - N - 24 DG

Basic model _____
Directional poppet valve, metric

Cavity _____
16520 = 2-way cavity

Function symbol _____

Type _____
01 = standard

Manual override _____
no details = without manual override
M = manual override

Body and ports* _____
C = cartridge only
Versions with bodies on request

Seals _____
N = NBR (standard)
V = FKM (optional)

Coil voltage _____
DC: 12 = 12 Volt DC
24 = 24 Volt DC
Other voltages on request

Coil connectors (type 75-3164) _____
DC: DG = DIN connector to EN175301-803
DT = AMP Junior Timer, 2-pole, radial
Other connectors on request

Standard models

Model code	Part No.
WSM16520W-01-C-N-12DG	3432838
WSM16520W-01-C-N-24DG	3134104

Other models on request

*Standard in-line bodies

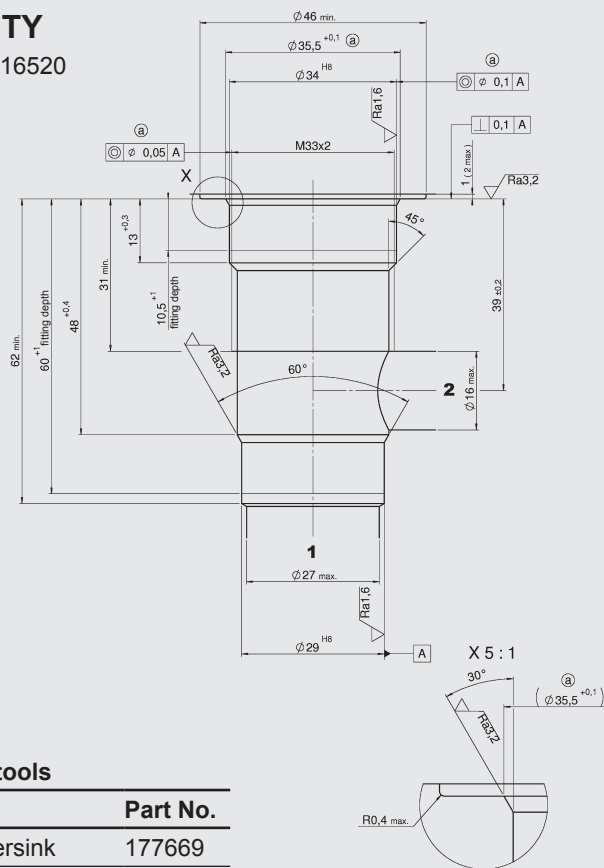
Code	Part No.	Material	Ports	Pressure
R16520-01X-01	3132532	Steel, zinc-plated	1 BSP	350 bar

Seal kits

Code	Part No.
SEAL KIT WSM16520 -NBR	3286856

CAVITY

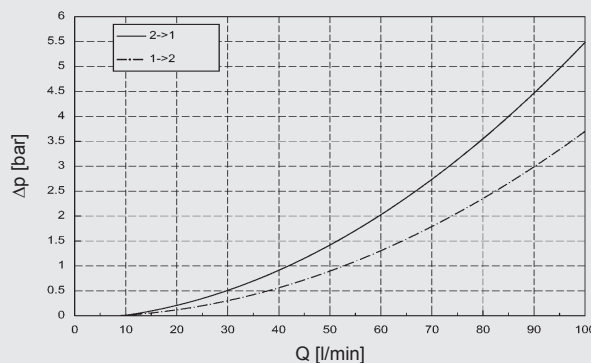
Metric 16520



millimeter (inch)
subject to technical modifications

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 and operating conditions not described, please contact the proper HYDAC department.
Subject to technical modifications.

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Form tools

Tool	Part No.
Countersink	177669
Reamer	1014952