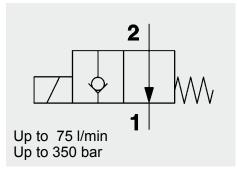
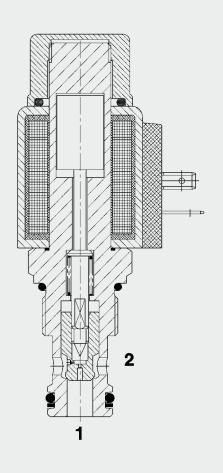
DAD INTERNATIONAL



2/2 Solenoid Directional Valve **Poppet Type, Pilot-Operated Normally Open** Metric Cartridge - 350 bar

WSM10120Y-01

FUNCTION



FEATURES

- 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
- Low pressure drop due to CFD optimized flow path

SPECIFICATIONS

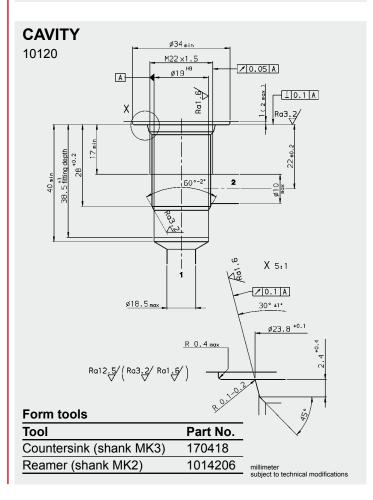
Operating pressure: max. 350 bar Nominal flow: max. 75 l/min Internal leakage: Leakage-free (max. 5 drops € 0,25 cm³/min at 350 bar) Media operating temperature range: min20 °C to max. +100 °C Ambient temperature range: min20 °C to max. +400 °C Operating fluid: Hydraulic oil to DIN 51524 Part 1 and 2 Viscosity range: min. 10 mm²/s to max. 420 mm²/s Filtration: Class 21/19/16 according to ISO 4406 or cleaner MTTF₀: 150 years (see "Conditions and instructions for valves" in brochure 5.300) Installation: No orientation restrictions Materials: Valve body: free-cutting steel poppet: 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: 10120 Weight: Valve complete 0.37 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 <td< th=""><th></th><th></th><th></th></td<>				
Internal leakage: Leakage-free (max. 5 drops = 0,25 cm²/min at 350 bar) Media operating temperature range: min20 °C to max. +100 °C Ambient temperature range: min20 °C to max. +60 °C Operating fluid: Hydraulic oil to DIN 51524 Part 1 and 2 Viscosity range: min. 10 mm²/s to max. 420 mm²/s Filtration: Class 21/19/16 according to ISO 4406 or cleaner MTTFd: 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: Coil: steel / polyamide Cavity: 10120 Weight: Valve complete 0.37 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: ± 15% of the nominal voltage Coil duty rating: Continuous up to max. 115% of the nominal voltage at 60 °C ambient		max. 350 bar		
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Cleaner		min. 10 mm²/s to max. 420 mm²/s		
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Voltage tolerance:± 15% of the nominal voltageCoil duty rating:Continuous up to max. 115% of the nominal voltage at 60 °C ambient	Current draw at 20 °C:			
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nominal voltage at 60 °C ambient	voltage tolerance:			
	Coil duty rating:	nominal voltage at 60 °C ambient		
	Dognance time:	temperature	approx 60 ma	
Response time: Energized: approx. 60 ms	Response time.	•	• •	
De-energized: approx. 20 ms Coil type: Coil40-1836	Coil type:		approx. Zu ms	
Coil type: Coil40-1836	Coll type.	COII4U-1836		

When de-energized, there is free flow through the valve from port 2 to 1. Flow is not possible in the reverse direction. 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 from port 1 to 2 when the hydraulic force on the piston overcomes the solenoid force (approx. 2.5 to 10 bar).

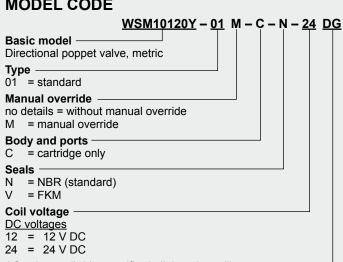
DIMENSIONS Manual override, with HNBR-rubber cap. After loosening knurled nut, coil can be rotated through 360° and removed. torque 4+2 Nm ø36.3 23.8 Max Ŋ 733. 7 Г hex SW27 Torque 45+10 Nm (2)8 (1)ø19 $M22 \times 1.5$

ø27

millimeter subject to technical modifications



MODEL CODE



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 mm² 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.
WSM10120Y-01-C-N-24DG	3178525
WSM10120Y-01-C-N-230AG	3178524

Standard in-line bodies

Code	Part No.	Material	Ports	Pressure
R10120-01X-01	395234	Steel, zinc-plated	G 1/2	420 bar

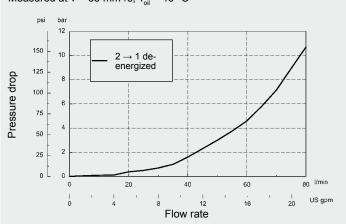
For other connection housings, see brochure no. E 5.252.

Seal kits

Code	Material	Part No.
SEAL KIT 10120-NBR	NBR	3382346
SEAL KIT 10120-FKM	FKM	3178281

PERFORMANCE

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



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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