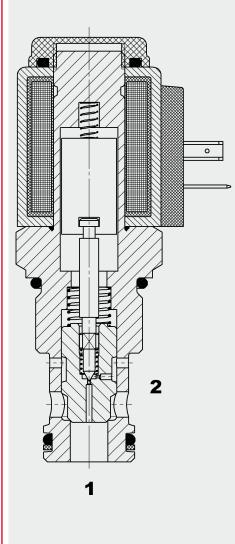


up to 350 bar

#### FUNCTION



In the de-energized mode, the valve is closed from port 2 to port 1. In the reverse direction there is free flow

through the valve. The valve opens at a differential pressure of approx. 1.5 bar (check function).

When energized, there is free flow through the valve from port 2 to port 1. Flow in the reverse direction is severely restricted.

# **2/2 Solenoid Directional Valve Poppet Type - Pilot Operated Normally Closed Metric Cartridge Valve - 350 bar** WSM12120Z

## GENERAL

- All surfaces zinc-plated and corrosion-proof.
- Minimal wear and long service life due to hardened and ground valve components.
- Coil seals protect the solenoid system
- Wide variety of connectors available
- Rigid design using one-piece body minimises the effect of eccentricities in cavity and maximises reliability.
- Excellent switching performance by high power Hydac solenoid.
- Low pressure drop due to CFD optimised flow-path.

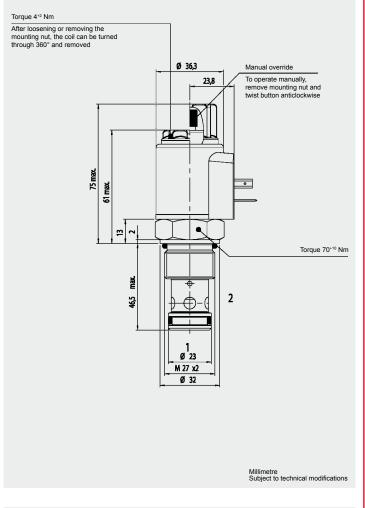
## SPECIFICATIONS

SPECIFICATIONS			
Operating pressure:	max. 350 bar		
Nominal flow:	max. 110 l/min		
Internal leakage:	leakage-free		
Media operating temp. range:	min20 °C to max. +120 °C		
Ambient temperature range:	min20 °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:	max. permissible contamination level of the operating fluid to ISO 4406 Class 21/19/16 or cleaner		
Installation:	optional		
Materials:		ensile steel ned and ground	
	seals: NBR ( FKM (	(standard) (optional)	
	back-up rings: PTFE		
Cavity:	12120		
Weight:	Valve complete: 0.46 kg Coil only: 0.19 kg		
Response time:	on: approx. 35 ms off: approx. 70 ms		
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 nominal voltage		
Switch-on time:	100% (continuous) up to max. 115% of the nominal voltage at 60°C ambient temperature		

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## DIMENSIONS



#### MODEL CODE

<u>WSM 12120</u> Z - <u>01</u> M - C - N - <u>24</u> <u>DG</u>
Designation Directional poppet valve, metric
Cavity
Function code
Type 01 = standard
Manual override no details = without manual override M = with manual override
Body and Ports
Seals N = NBR (standard) V = FKM (optional)
Coil voltage
DC: $12 = 12$ Volt DC 24 = 24 Volt DC C: $145 = 145$ Volt AC (bridge rectifier built into the soil)
AC: 115 = 115 Volt AC (bridge rectifier built into the coil) 230 = 230 Volt AC (bridge rectifier built into the coil) other voltages on request
Coil connectors
DC: DG = DIN connector to EN175301-803 DK = KOSTAL threaded connection

- DI = connector with 2 flying leads, 0.75 mm<sup>2</sup> DN = Deutsch connector DT = AMP Junior Timer, 2-pole, radial AC: AG = DIN connector to EN175301-803

other connection types on request

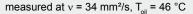
#### Standard models

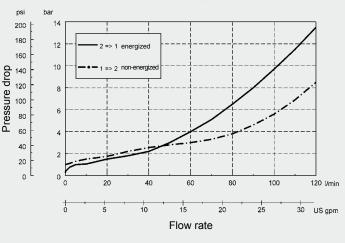
Model code	Part no.
WSM12120Z-01-C-N-12DG	3230865
WSM12120Z-01-C-N-24DG	3230870
WSM12120Z-01-C-N-230AG	3230869
other models on request	

#### Inline connection housings

Code	Part no.	Material	Ports
R12120-10X-01	396708	Steel, zinc-plated	G 3/4
R12120-10X-02	396707	Steel, zinc-plated	M 27 x 2

#### PERFORMANCE



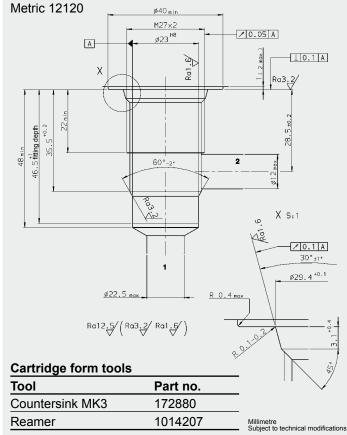


**NOTE:** The information in this brochure relates to the operating conditions and applications

the operating conditions and applications described. For applications or operating conditions not described, please contact the relevant techni-cal department. Subject to technical modifications.

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