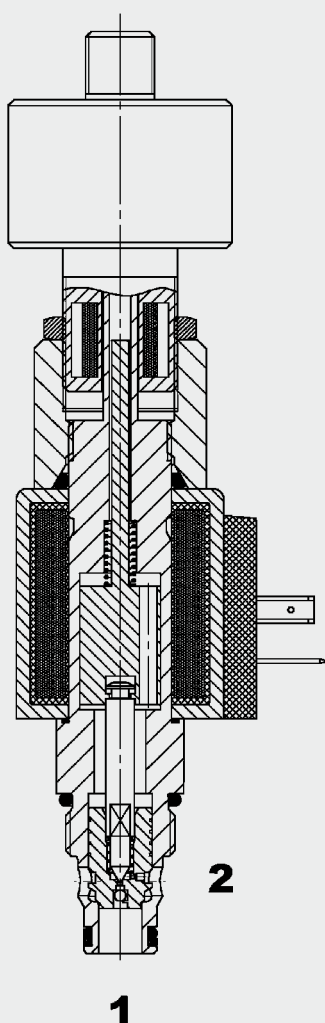


Up to 40 l/min
Up to 350 bar

FUNCTION



The directional valve WS08ZR-01E is a pilot-operated poppet valve with electronic switch position monitoring. When de-energized the valve is closed from port 2 to port 1.

Flow is possible in the opposite direction. The valve poppet opens at a differential pressure of approx. 1.8 bar (check function).

When energized the valve allows flow in both directions.

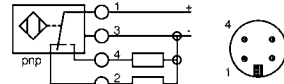
2/2 Solenoid Directional Valve Poppet Type, Pilot-Operated Normally Closed (Reverse Flow) With Electronic Switch Position Monitoring SAE-08 Cartridge – 350 bar WS08ZR-01E

FEATURES

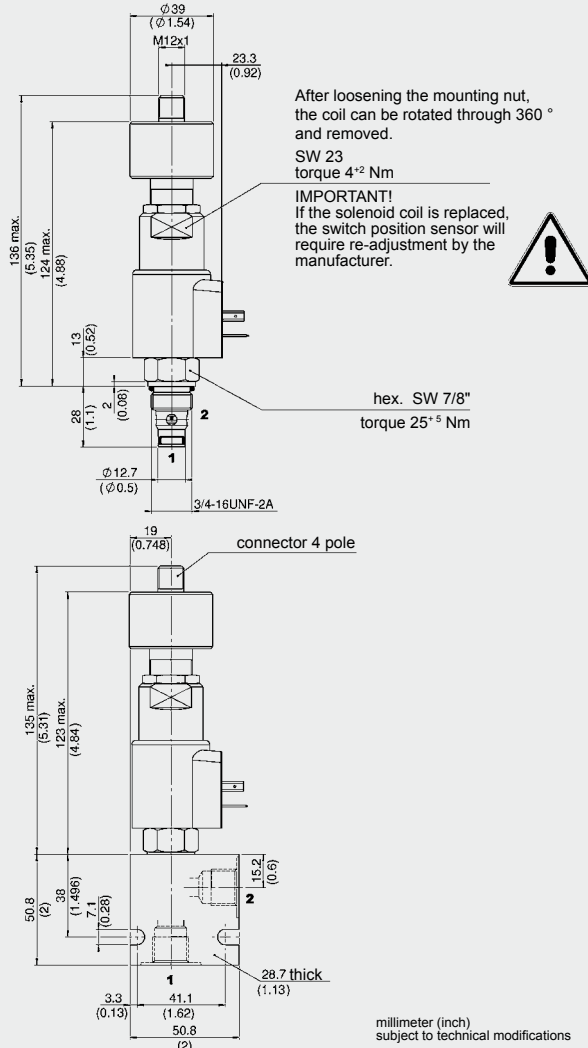
- External surfaces zinc-plated and corrosion-proof
- Hardened and ground internal valve components to ensure minimal wear and extended service life
- Coil seals protect the solenoid system
- Wide variety of connectors available
- Excellent switching performance by high power HYDAC solenoid
- Low pressure drop due to CFD optimized flow path
- With integrated electronic switch position monitoring

SPECIFICATIONS

Operating pressure:	max. 350 bar
Nominal flow:	max. 40 l/min
Leakage:	leakage-free (max. 5 drops \approx 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 and 2
Viscosity range:	min. 10 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: steel 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:	FC08-2
Weight:	0.5 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:	\pm 15% of nominal voltage
Coil duty rating:	Continuous up to max. 115% of the nominal voltage at 60 °C ambient temperature
Response time:	Energized: approx. 30 ms De-energized: approx. 70 ms
Sensor data:	
Supply voltage:	20 to 32 V DC, with reverse polarity protection
Outputs:	2 with change-over function PNP positive switching
Output load:	\leq 400 mA, 100% duty
Short circuit protection:	Provided
Connector:	Male connector M12 x 1, round
Protection class	IP65 to DIN 40050
CE-Conformity:	93/68/EEC 2004/108/EC
EMC:	DIN EN 6100-6-1-2-3-4
Humidity requirements:	0 - 95 % rel. (to DIN 40040)
Sensor connections:	

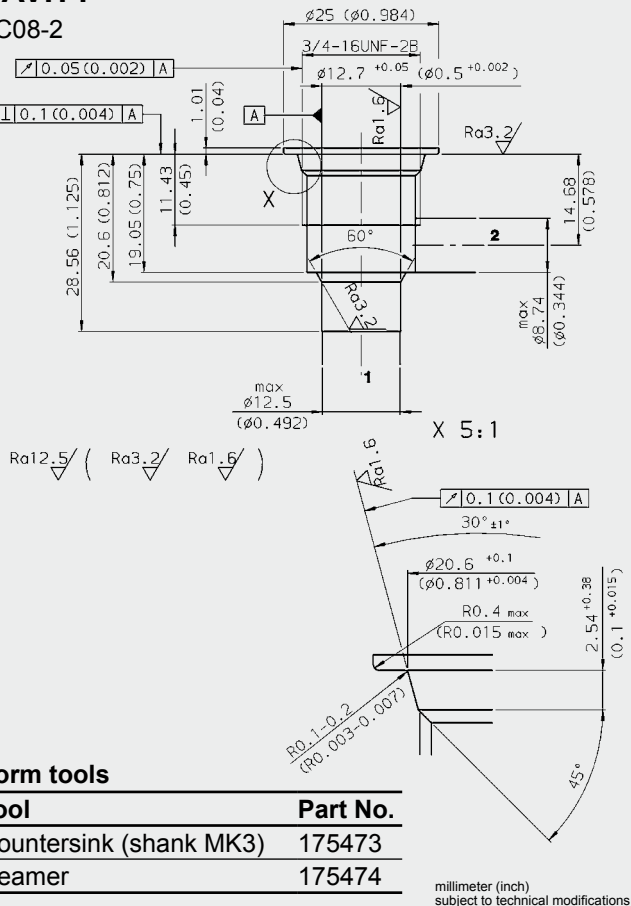


DIMENSIONS



CAVITY

FC08-2



MODEL CODE

WS08ZR - 01E - C - N - 24 DG

Basic model

Directional poppet valve, UNF

Type

01E = with electronic switch position monitoring

Body and ports*

C = cartridge only

Seals

N = NBR (standard)

V = FKM (optional)

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 EN175301-803

DK = Kostal threaded connection M27 x 1

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.
WS08ZR-01E-C-N-12DG	3368892
WS08ZR-01E-C-N-24DG	3352882
WS08ZR-01E-C-N-230AG	3368893
Other models on request	

*Standard in-line bodies

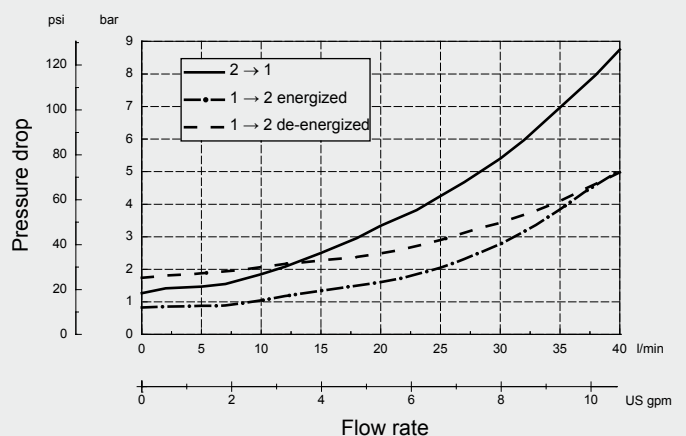
Code	Part No.	Material	Ports	Pressure
FH082-SB3	560919	Steel, zinc-plated	G3/8	420 bar
FH082-AB3	3011423	Aluminium, anodized	G3/8	210 bar
Other bodies on request				

Seal kits

Code	Material	Part No.
FS082-N SEAL KIT	NBR	3033920
FS082-V SEAL KIT	FKM	3051756

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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