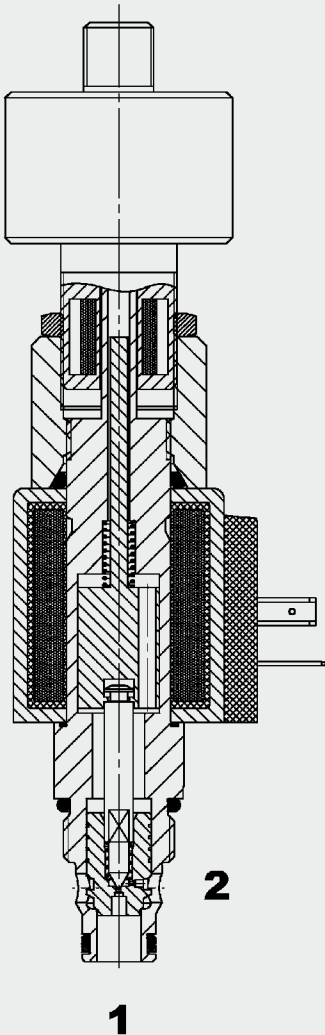


Up to 40 l/min  
Up to 350 bar

## FUNCTION



The directional valve WS08Z-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 piston opens at a differential pressure of approx. 1.8 bar (check function).

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

## 2/2 Solenoid Directional Valve Poppet Type, Pilot-Operated Normally Closed With Electronic Switch Position Monitoring SAE-08 Cartridge – 350 bar WS08Z-01E

### FEATURES

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

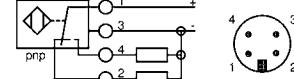
### SPECIFICATIONS

Operating pressure:	max. 350 bar
Nominal flow:	max. 40 l/min
Leakage:	leakage-free (max. 5 drops $\approx$ 0,25 cm <sup>3</sup> /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
Fluids:	Hydraulic oil to DIN 51524 Part 1 + 2
Viscosity:	min. 10 mm <sup>2</sup> /s to max. 420 mm <sup>2</sup> /s
Filtration:	Class 21/19/16 according to ISO 4406 or cleaner
MTTF <sub>d</sub> :	150 years (see "Conditions and instructions for valves" in brochure 5.300)
Installation:	Optional
Material:	Valve body: hardened steel Piston: hardened and ground steel Seals: NBR (standard) FPM (optional, media temperature range -20 °C to +120 °C)
	Back-up rings: PTFE
Cavity:	FC08-2
Weights:	0.5 kg
<b>Electric data:</b>	
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 for 12 V DC 0,8 A for 24 V DC
Pull-in voltage:	$\pm$ 15% of nominal
Coil duty rating:	Continuous up to 115% of nominal voltage at 60 °C ambient temperature
Response time:	Energized: approx. 30 ms De-energized: approx. 70 ms
Coil type	Coil...-40-1836

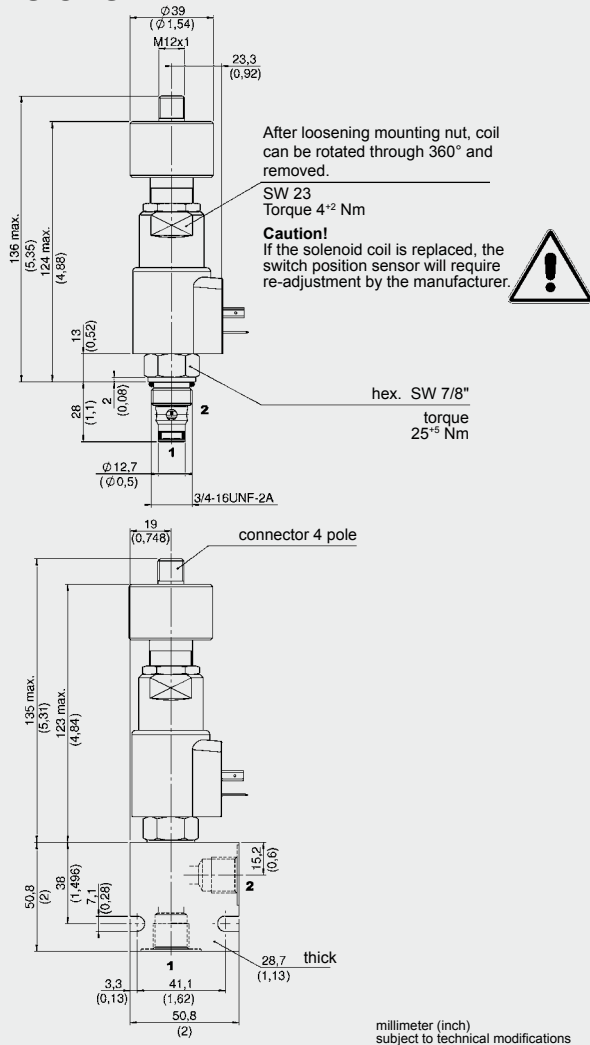
### Sensor specifications

Supply voltage	20 up to 32 V DC with reverse polarity protection of supply
Outputs:	2 with change-over function PNP positive switching
Output load:	$\leq$ 400 mA, 100% continuous
Short-circuit protection:	Provided
Connector:	Male connector M12 x 1, round
Type of protection:	IP65 to DIN 40050
CE conformity:	93/68/EEC2004/108/EC
EMV:	DIN EN6100-6-1-2-3-4
Humidity range:	0-95 % rel. (to DIN 40040)

Diagram:



## DIMENSIONS



## MODEL CODE

**WS08Z - 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**  
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 mm<sup>2</sup>  
DN = Deutsch connector, 2-pole, axial  
DT = AMP Junior Timer, 2-pole, radial  
AC: AG = DIN Connector (EN 175301-803)  
other connectors on request

## Standard models

Code	Part No.
WS08Z-01E-C-N-12DG	3368894
WS08Z-01E-C-N-24DG	3361705
WS08Z-01E-C-N-230AG	3368916
Other models on request	

## \* Standard in-line bodies

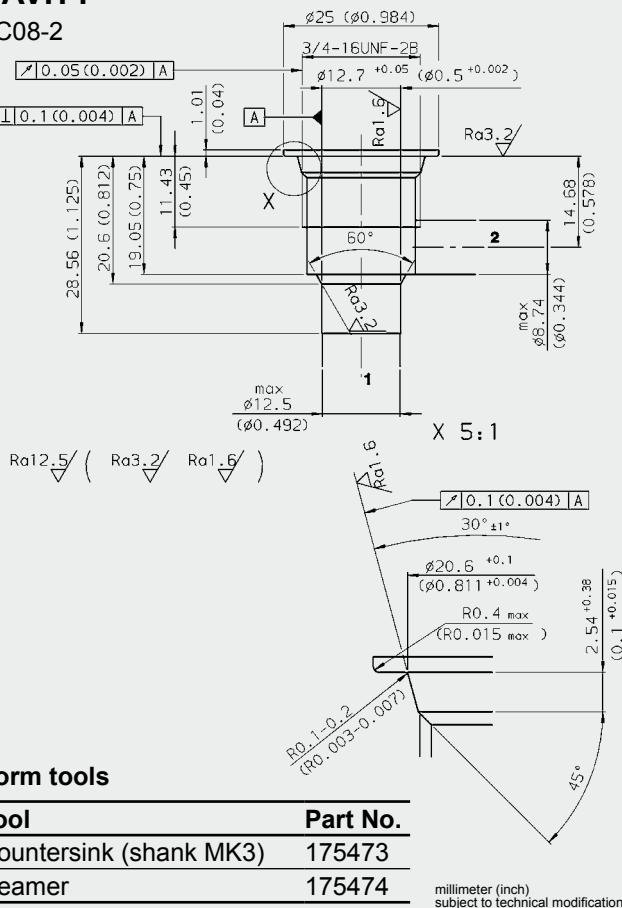
Code	Part No.	Material	Ports	Pressure
FH082-SB3	560919	Steel, zinc-plated	G3/8	420 bar
FH082-AB3	3011423	Aluminium, clear anodized	G3/8	210 bar
Other models on request				

## Seal kits

Code	Material	Part No.
FH082-N Seal kit	NBR	3033920
FH082-V Seal kit	FKM	3051756

## CAVITY

FC08-2



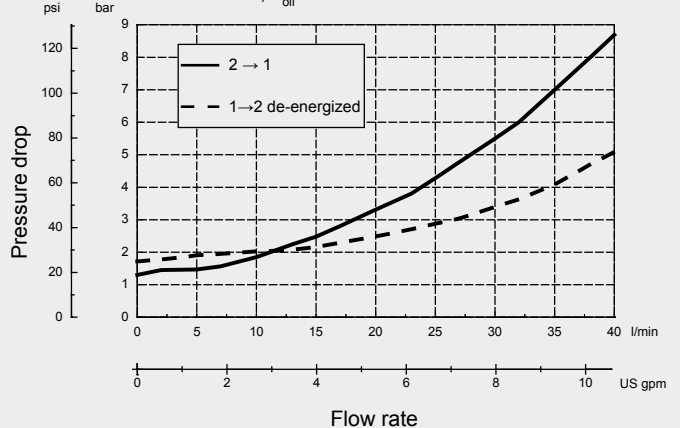
## Form tools

Tool	Part No.
Countersink (shank MK3)	175473
Reamer	175474

millimeter (inch) subject to technical modifications

## 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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