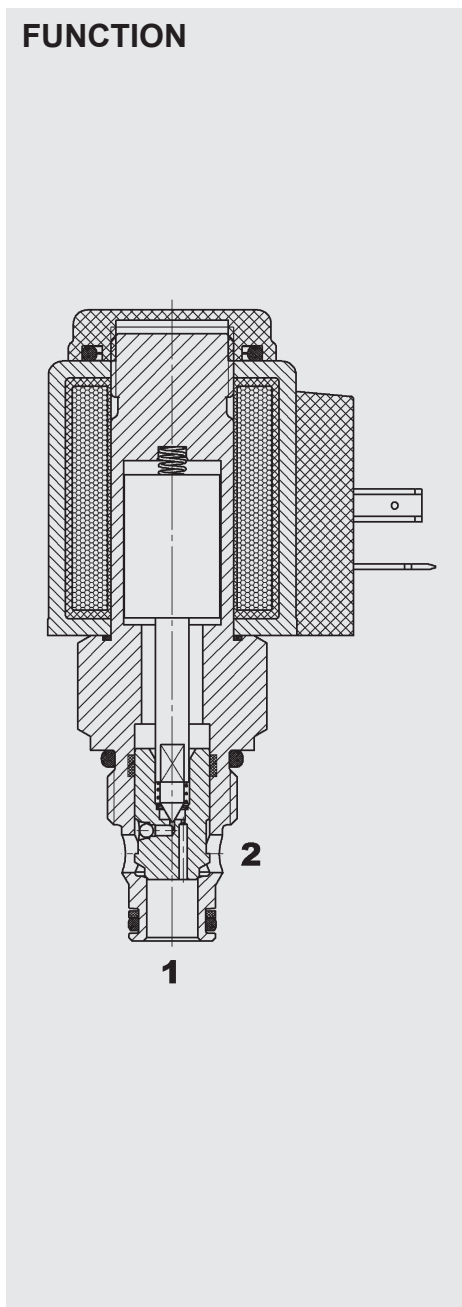


## FUNCTION



The directional poppet valve WS08BR is a pilot-operated, normally closed, spring-loaded valve. When the solenoid is de-energized, the valve blocks flow from port 1 to 2 and acts as a check allowing flow from port 2 to 1. When energized the valve allows flow in both directions.

## 2/2 Solenoid Directional Valve **UNF** Poppet Type, Pilot Operated, Normally Closed **SAE-08 Cartridge – 350 bar** WS08BR-31

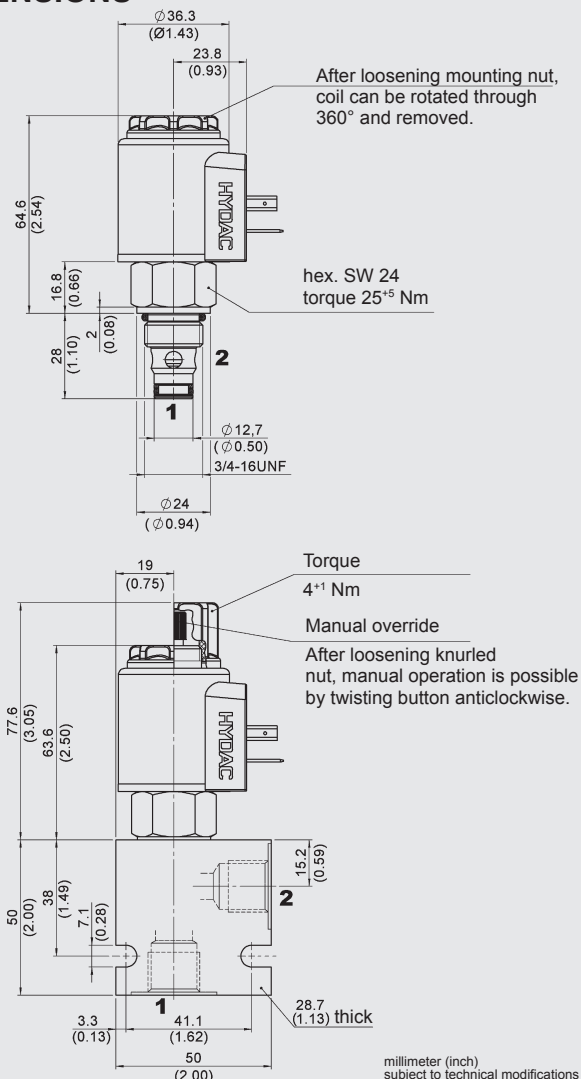
### FEATURES

- 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
- Wide variety of connections available
- Low pressure drop due to CFD optimized flow path

### SPECIFICATIONS

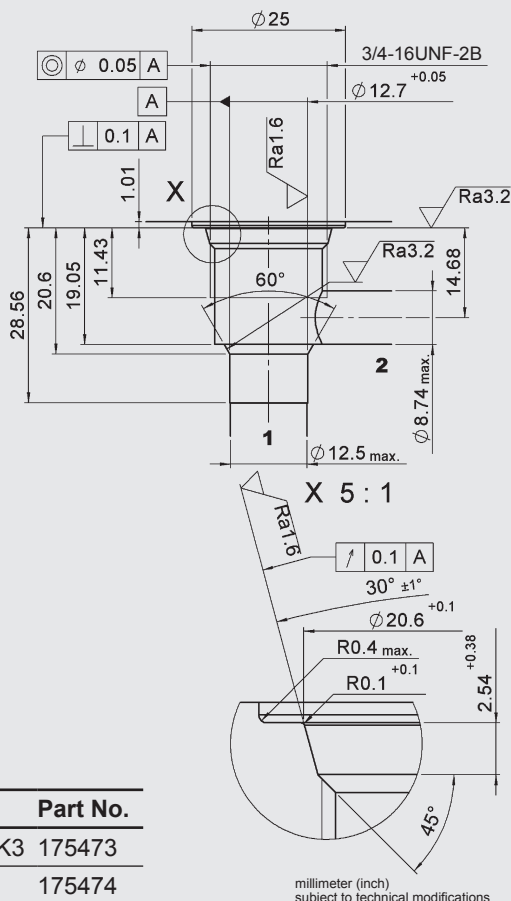
Operating pressure:	max. 350 bar
Nominal flow:	max. 40 l/min
Internal leakage:	Leakage-free
Media operating temperature range:	min. -20 °C to max. +100 °C
Ambient temperature range:	min. -20 °C to max. +60 °C
Operating fluid:	Hydraulic oil to DIN 51524 Part 1 and 2
Viscosity range:	min. 7.4 mm <sup>2</sup> /s to max. 420 mm <sup>2</sup> /s
Filtration:	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: high tensile steel Piston: hardened and ground steel Seals: NBR (standard) FKM (optional) Back-up rings: PTFE
Cavity:	FC08-2
Weight:	Valve complete 0.33 kg Coil only 0.19 kg
<b>Electrical 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 at 12 V DC; 0.8 A at 24 V DC
Voltage tolerance:	± 15% of nominal
Coil duty rating:	Continuous up to max. 115% of nominal voltage at max. 60° C ambient temperature
Response time:	On: approx. 20 ms Off: approx. 80 ms
Coil type:	Coil... –40-1836

## DIMENSIONS



## CAVITY

FC08-2



## Form tools

Tool	Part No.
Countersink MK3	175473
Reamer	175474

## MODEL CODE

**WS08BR - 31 M - C - N - 24 DG**

## Basic model

Directional poppet valve, metric

## Type

31 = standard  
(spanner width 24 metric)

### Manual override

No details = without manual override  
M = manual override

## Body and ports

C = cartridge only  
Combinations with body on request

## Seals

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

### Coil voltage

DC: 12 = 12 Volt DC  
24 = 24 Volt DC  
AC: 115 = 115 Volt AC  
(bridge rectifier built into coil)  
230 = 230 Volt AC  
(bridge rectifier built into coil)

Other voltages on request

### Coil connections 40-1836

DC: DG = DIN connection to EN175301-803  
DT = AMP Junior Timer, 2 pole, radial  
DK = Kostal threaded connection M27 x 1  
DL = leadwires (2), 475mm long  
DN = Deutsch connection, axial  
AC: AG = DIN connection to EN175301-803  
Other connections on request

## Standard models

Model code	Part No.
WS08BR-31-C-N-24DG	3554847
WS08BR-31-C-N-230AG	3554848

Other models on request

### Standard in-line bodies

Code	Part No.	Material	Ports	Pressure
FH082-SB3	560919	Steel, zinc-plated	3/8 BSP	420 bar
FH082-AB3	3011423	Aluminium, clear anodized	3/8 BSP	210 bar

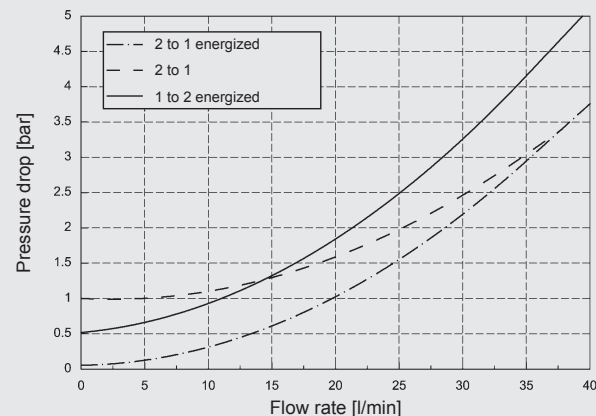
Other bodies on request

## Seal kits

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

## PERFORMANCE

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



## NOTE

**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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