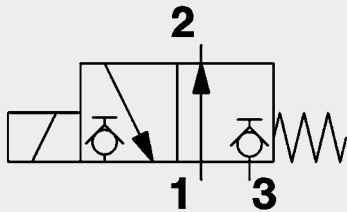


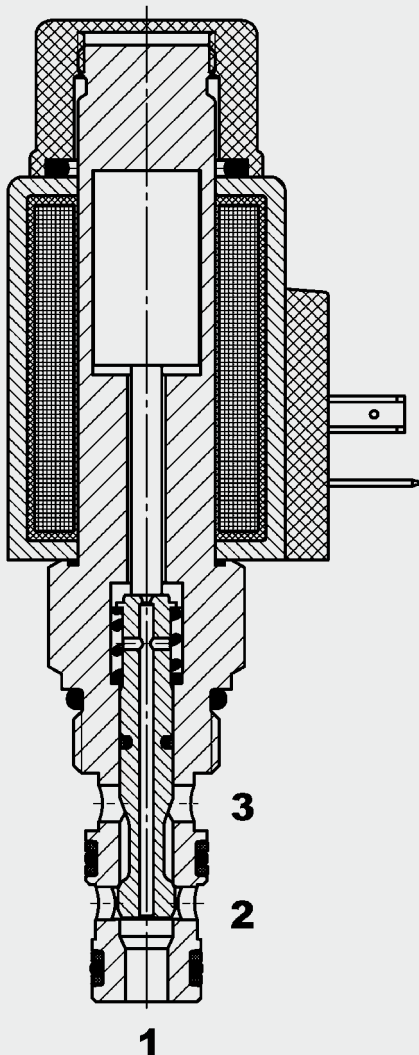
## 3/2 Solenoid Directional Valve **UNF** Poppet Type, Direct-Acting SAE-08 Cartridge – 350 bar

WS08D-01



23 l/min  
350 bar

### 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

### SPECIFICATIONS

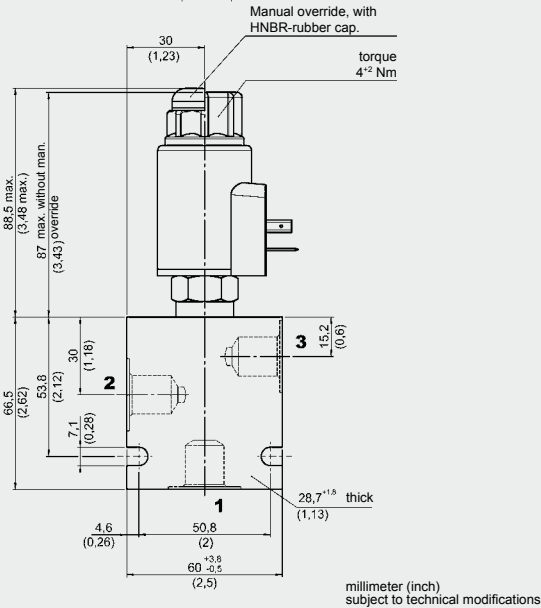
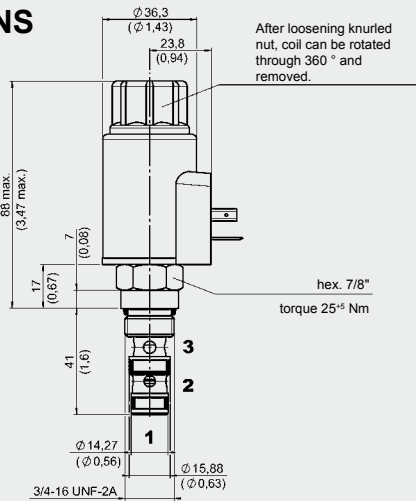
|                                    |   |                           |
|------------------------------------|---|---------------------------|
| Operating pressure:                | max. 350 bar  |                           |
| Nominal flow:                      | max. 23 l/min   |                           |
| Internal leakage:                  | leakage-free<br>(max. 5 drops $\approx$ 0,25 cm <sup>3</sup> /min at 350 bar) |                           |
| Media operating temperature range: | -20 °C to +100 °C   |                           |
| Ambient temperature range:         | -20 °C to +60 °C  |                           |
| Fluids:                            | Hydraulic oil to DIN 51524 part 1 and 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:                      | no orientation restrictions   |                           |
| Material:                          | Valve body:   | steel                     |
|                                    | Spool:  | hardened and ground steel |
| Seals:                             | NBR (standard)<br>FKM (optional, media temperature range -20 °C to +120 °C)   |                           |
|                                    | Back-up rings:  | PTFE                      |
| Coil:                              | Steel/Polyamide   |                           |
| Cavity:                            | FC08-3  |                           |
| Weights:                           | Valve complete:   | 0.45 kg                   |
|                                    | Coil only:  | 0.23 kg                   |

### Electrical data:

|                        |   |               |
|------------------------|---|---------------|
| Reponse time:          | Energized:  | approx. 30 ms |
|                        | De-energized:   | approx. 50 ms |
| Type of voltage:       | DC solenoid, AC voltage is rectified using a bridge rectifier built into the coil |               |
| Current draw at 20 °C: | 2.22 amps at 12 V DC  |               |
|                        | 1.13 amps at 24 V DC  |               |
| Voltage tolerance:     | $\pm$ 15% of nominal  |               |
| Coil duty rating:      | Continuous up to 115% of nominal voltage at max 60 °C ambient temperature         |               |
| Coil type              | Coil...-50-1836   |               |

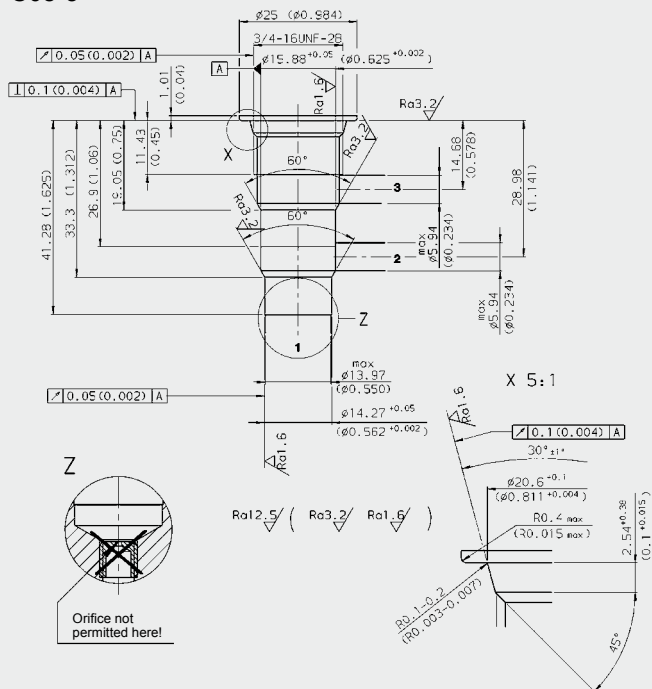
When de-energized, there is free flow through the valve from port 1 to port 2. Port 3 is closed. When energized, the valve allows flow from port 2 to 3, while blocking flow at port 1.

## DIMENSIONS



## CAVITY

FC08-3



## Form tools

| Tool               | Part No. |
|--------------------|----------|
| Countersink FC10-2 | 175644   |
| Reamer FC10-2      | 175645   |

millimeter (inch)  
subject to technical modifications

## MODEL CODE

**WS08D - 01 M - C - N - 24 DG**

**Basic model** \_\_\_\_\_  
Directional poppet valve UNF  
**Type** \_\_\_\_\_  
01 = standard  
**Manual override** \_\_\_\_\_  
no details = without manual override  
M = manual override  
**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 50-1836)** \_\_\_\_\_  
DC: DG = DIN connector to EN 175301-803  
DK = KOSTAL threaded connection M27x1  
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 to EN 175301-803  
Other connectors on request

## Standard models

| Model code         | Part No. |
|--------------------|----------|
| WS08D-01-C-N-12DG  | 3229015  |
| WS08D-01-C-N-24DG  | 3229020  |
| WS08D-01-C-N-230AG | 3229019  |

Other models on request

## \* Standard in-line bodies

| Code      | Part No. | Material                  | Ports | Pressure |
|-----------|----------|---------------------------|-------|----------|
| FH083-SB3 | 560922   | Steel, zinc-plated        | G3/8  | 420 bar  |
| FH083-AB3 | 3011427  | Aluminium, clear anodized | G3/8  | 210 bar  |

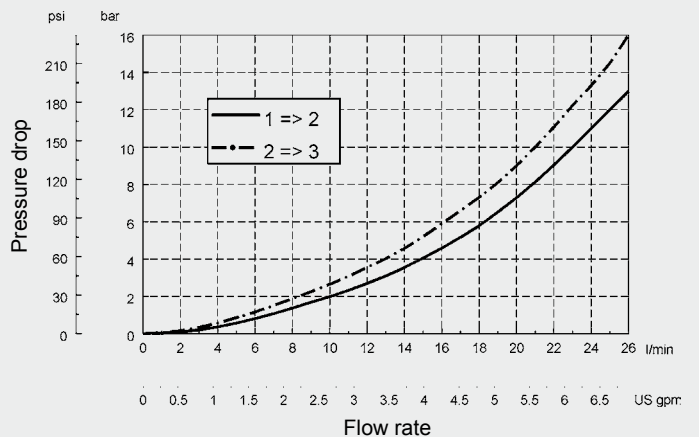
Other models on request

## Seal kits

| Code             | Material | Part No. |
|------------------|----------|----------|
| FS083-N seal kit | NBR      | 3054795  |
| FS083-V seal kit | FKM      | 2591059  |

## 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.

**HYDAC Fluidtechnik GmbH**  
Justus-von-Liebig-Str.  
**D-66280 Sulzbach/Saar**  
Tel: 0 68 97 /509-01  
Fax: 0 68 97 /509-598  
E-Mail: flutec@hydac.com