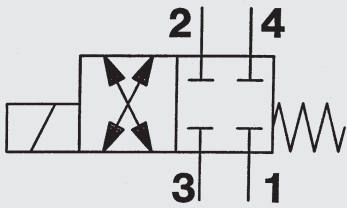


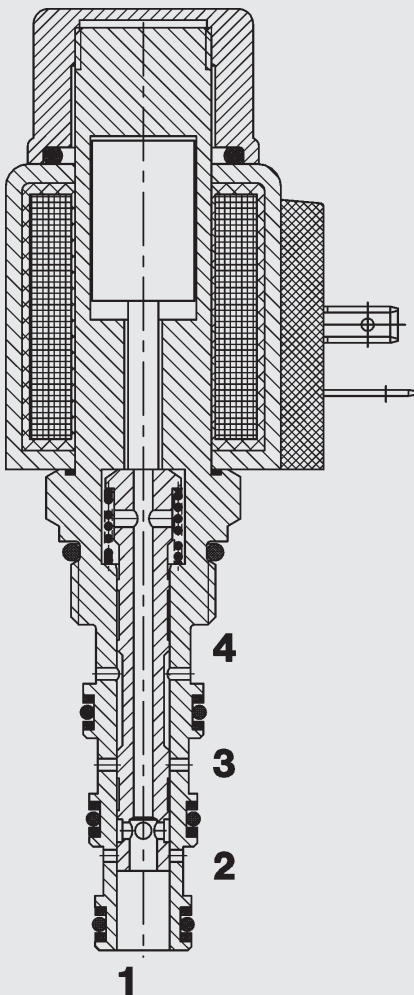
## 4/2 Solenoid Directional Valve **UNF** Spool Type, Direct-Acting SAE-08 Cartridge – 350 bar

WK08Z-01



19 l/min  
350 bar

### FUNCTION



When the solenoid coil is de-energized, all ports are closed. When the solenoid coil is energized, there is free flow through the valve from port 1 to 2 or from 2 to 1 and also from port 3 to 4 or from 4 to 3.

### 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

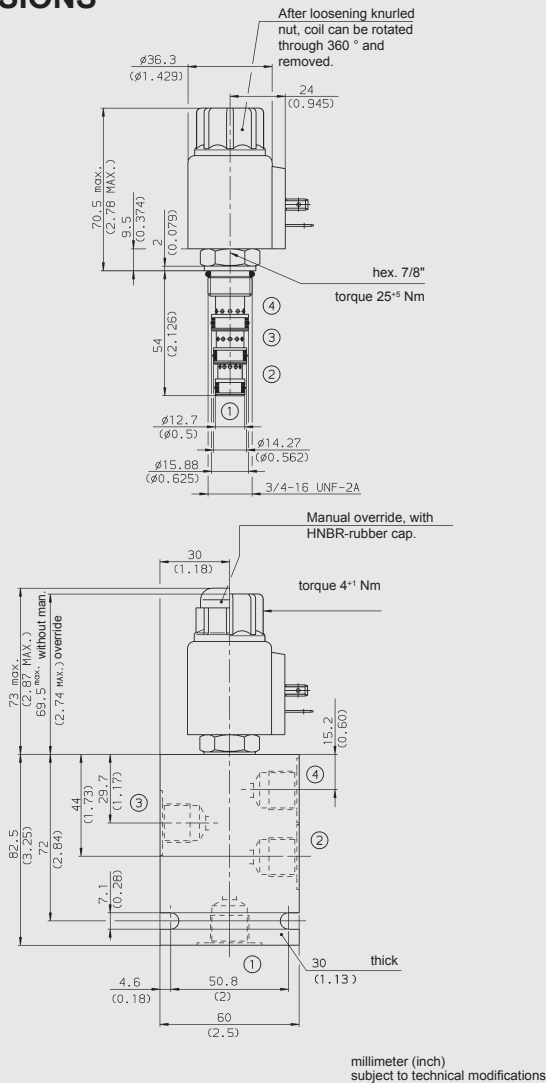
### SPECIFICATIONS

|                                    |  |                |                    |           |                           |        |   |                |      |       |                   |
|------------------------------------|--|----------------|--------------------|-----------|---------------------------|--------|---|----------------|------|-------|-------------------|
| Operating pressure:                | max. 350 bar   |                |                    |           |                           |        |   |                |      |       |                   |
| Nominal flow:                      | max. 19 l/min (Consult HYDAC for flow rates above 207 bar)   |                |                    |           |                           |        |   |                |      |       |                   |
| Internal leakage:                  | 90 cm <sup>3</sup> /min at 250 bar and 34 mm <sup>2</sup> /s   |                |                    |           |                           |        |   |                |      |       |                   |
| 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  |                |                    |           |                           |        |   |                |      |       |                   |
| MTTF <sub>d</sub> :                | 150 years (see "Conditions and instructions for valves" in brochure 5.300)   |                |                    |           |                           |        |   |                |      |       |                   |
| Materials:                         | <table border="0"> <tr> <td>Valve body:</td> <td>free-cutting steel</td> </tr> <tr> <td>Spool:</td> <td>hardened and ground steel</td> </tr> <tr> <td>Seals:</td> <td>NBR (standard)<br/>FKM (optional, media temperature range -20 °C to +120 °C)</td> </tr> <tr> <td>Back-up rings:</td> <td>PTFE</td> </tr> <tr> <td>Coil:</td> <td>steel / polyamide</td> </tr> </table> | Valve body:    | free-cutting 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 |
| Valve body:                        | free-cutting 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:                            | FC08-4   |                |                    |           |                           |        |   |                |      |       |                   |
| Weight:                            | <table border="0"> <tr> <td>Valve complete</td> <td>0.38 kg</td> </tr> <tr> <td>Coil only</td> <td>0.19 kg</td> </tr> </table>   | Valve complete | 0.38 kg            | Coil only | 0.19 kg                   |        |   |                |      |       |                   |
| Valve complete                     | 0.38 kg  |                |                    |           |                           |        |   |                |      |       |                   |
| Coil only                          | 0.19 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<br>0.8 A at 24 V DC  |
| Voltage tolerance:     | ± 15% of the nominal voltage  |
| Coil duty rating:      | Continuous up to max. 115% of the nominal voltage at 60 °C ambient temperature    |
| Coil type:             | Coil...-40-1836   |

## DIMENSIONS



## MODEL CODE

**WK08Z-01 M-C-N-24 DG**

**Basic model** \_\_\_\_\_  
Directional spool valve, UNF

**Type** \_\_\_\_\_  
01 = standard

**Manual override** \_\_\_\_\_  
no details = without manual override  
M = manual override

**Body and ports\*** \_\_\_\_\_  
C = cartridge only  
SB3 = G3/8 ports, steel body  
AB3 = G3/8 ports, aluminium body

**Seals** \_\_\_\_\_  
N = NBR (standard)  
V = FKM

**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 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

| Code               | Part No. |
|--------------------|----------|
| WK08Z-01-C-N-24DG  | 3022108  |
| WK08Z-01-C-N-230AG | 3044097  |

Other models on request

## \* Standard in-line bodies

| Code      | Part No. | Material                  | Ports | Pressure |
|-----------|----------|---------------------------|-------|----------|
| FH084-SB3 | 563383   | Steel, zinc-plated        | G3/8  | 420 bar  |
| FH084-AB3 | 3011407  | Aluminium, clear anodized | G3/8  | 210 bar  |

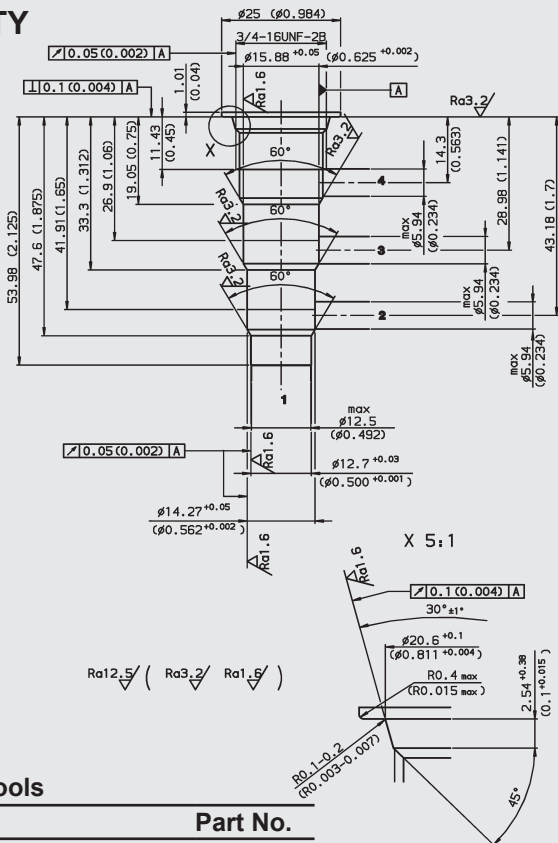
Other housings on request

## Seal kits

| Code             | Material | Part No. |
|------------------|----------|----------|
| FS084-N SEAL KIT | NBR      | 3071272  |
| FS084-V SEAL KIT | FKM      | 3071273  |

## CAVITY

FC08-4



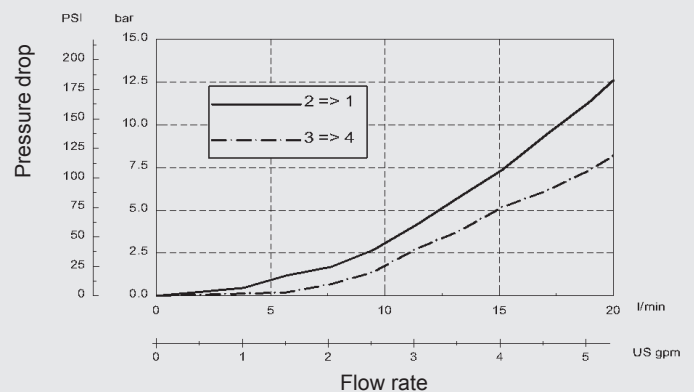
## Form tools

| Tool               | Part No. |
|--------------------|----------|
| Countersink FC08-4 | 175646   |
| Reamer FC08-4      | 175647   |

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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