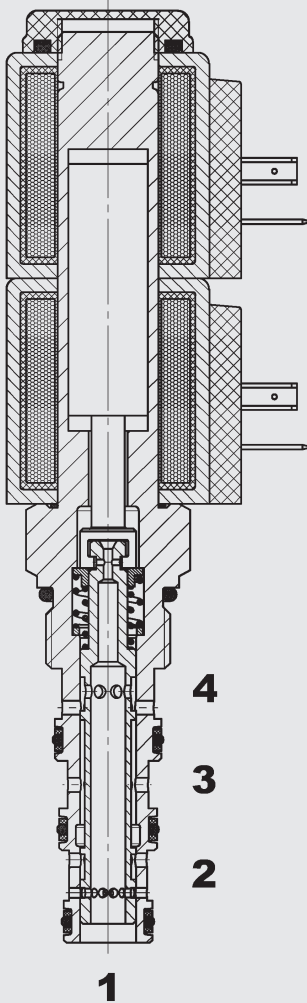


up to 23 l/min
up to 350 bar

FUNCTION



The 4/3 directional valve is a direct-acting spool type valve. When de-energized, ports 2 and 4 are relieved to port 1, while port 3 is closed. When coil S1 is energized, there is free flow through the valve from port 3 to port 2 and from port 4 to port 1. Reverse flow from 1 to 4 and 2 to 3 is not permitted. When coil S2 is energized, port 3 is connected to ports 2 and 4, while port 1 is closed.

4/2 Solenoid Directional Valve spool type, direct-acting Cartridge UNF – 350 bar WK10T-01

FEATURES

- Coil seals protect the solenoid system
- Wide variety of connectors available
- Excellent switching performance by high power HYDAC solenoid
- External surfaces with advanced corrosion protection due to Zn-Ni coating (1,000 h salt spray test)

TECHNICAL DATA*

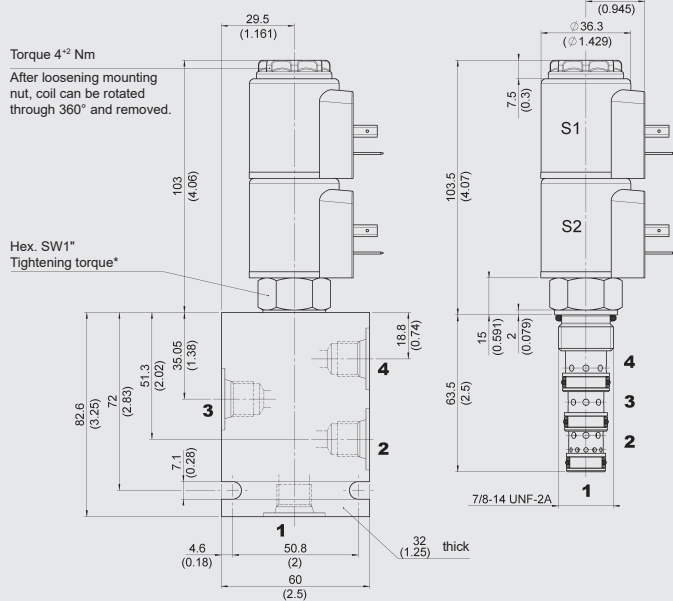
| | |
|---------------------------------------|---|
| Operating pressure: | max. 350 bar |
| Nominal flow: | max. 23 l/min at 210 bar |
| Internal leakage: | max. 160 ml/min |
| Temperature range of operating fluid: | min. -20 °C to max. +120 °C |
| Ambient temperature range: | min. -20 °C to max. + 60 °C |
| Operating fluid: | Hydraulic oil to DIN 51524 Part 1, 2 and 3 |
| Viscosity range: | min. 7.4 mm ² /s to max. 420 mm ² /s |
| Filtration: | Class 21/19/16 according to ISO 4406 or cleaner |
| MTTF _d : | 150–1200 years, according to DIN EN ISO 13849-1 |
| Installation position: | No orientation restrictions |
| Materials: | Valve body: steel Piston: hardened and ground steel Seals: FKM (standard) NBR (optional, media temperature range up to +100 °C) Back-up rings: PTFE Coil: steel/ polyamide |
| Cavity: | FC10-4 |
| Weight: | valve complete: 0.75 kg coil only: 2x 0.19 kg |

Electronics

| | |
|------------------------|---|
| Type of voltage: | <u>DC</u> : direct current solenoid <u>AC</u> : alternating current solenoid with 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 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 |

* See "Conditions and Instructions for Valves" in brochure 53.000

DIMENSIONS



Torque 4^{±2} Nm
After loosening mounting nut, coil can be rotated through 360° and removed.

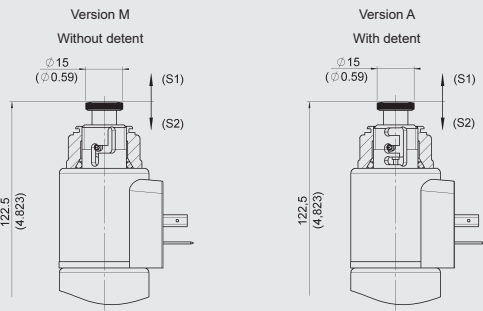
Hex. SW1*
Tightening torque*

Manual override

*Torque:

Steel housing (burst strength > 360 N/mm²): 50 Nm
Aluminium housing (burst strength > 330 N/mm²): 40 Nm
(With torque tool in acc. with DIN EN ISO 6789, tool type II, class A or B)

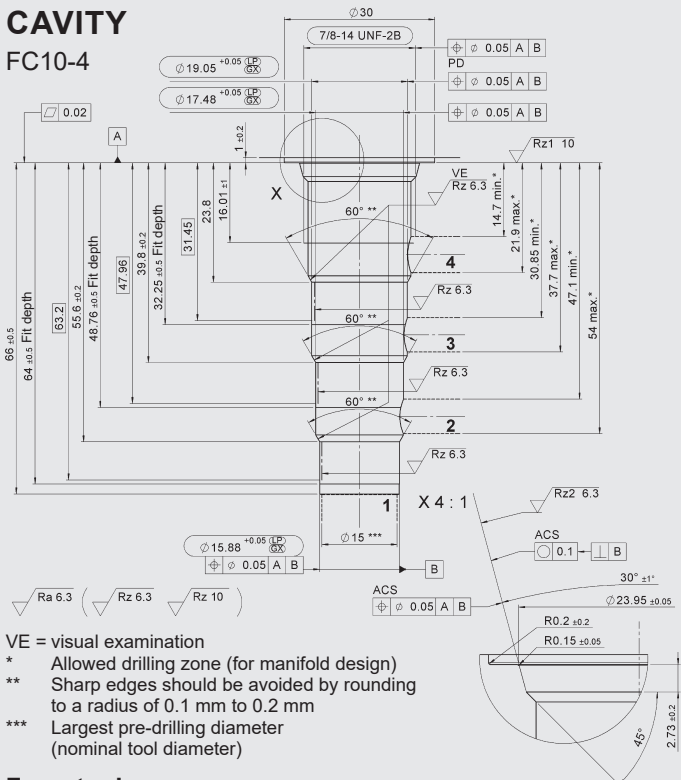
For more information see "Operating conditions and instructions for valves" in brochure 53.000



Millimetre (inch)
Subject to technical modifications

CAVITY

FC10-4



VE = visual examination

* Allowed drilling zone (for manifold design)
** Sharp edges should be avoided by rounding to a radius of 0.1 mm to 0.2 mm
*** Largest pre-drilling diameter (nominal tool diameter)

Form tools

| Tool | Part no. |
|-------------|----------|
| Countersink | 176174 |
| Reamer | 176175 |

Millimetre (inch)
Subject to technical modifications

MODEL CODE

WK10T-01 M-C-N-24 DG

Model code

Directional spool valve, UNF

Type

01 = standard

Manual override

No details = without manual override
M = manual override

Connection type*

C = cartridge only

Sealing material

N = NBR (standard)
V = FKM

Coil voltage

DC voltage
12 = 12 VDC
24 = 24 VDC

AC voltage (rectifier built into the coil)

24 = 24 V AC
230 = 230 V AC

Other voltages on request

Coil connectors (type 40-1836)

DC: DG = DIN connector type A to EN 175301-803
DK = KOSTAL threaded connection M27x1
DL = 2 flying leads, 457 mm long, 0.75 mm²
DN = Deutsch connector DT04-2P, 2-pole, axial
DT = AMP Junior Timer, 2-pole, radial

AC: AG = DIN connector design A to EN 175301-803

Other connectors on request

Standard models

| Model code | Part no. |
|-------------------|----------|
| WK10T-01-C-N-24DG | 4093762 |

Other models on request

*Inline connection housing

| Code | Part no. | Material | Ports | Pressure |
|-----------|----------|---------------------|-------|----------|
| FH104-SB4 | 3037784 | Steel, zinc-plated | G1/2" | 350 bar |
| FH104-AB4 | 3038097 | Aluminium, anodized | G1/2" | 210 bar |

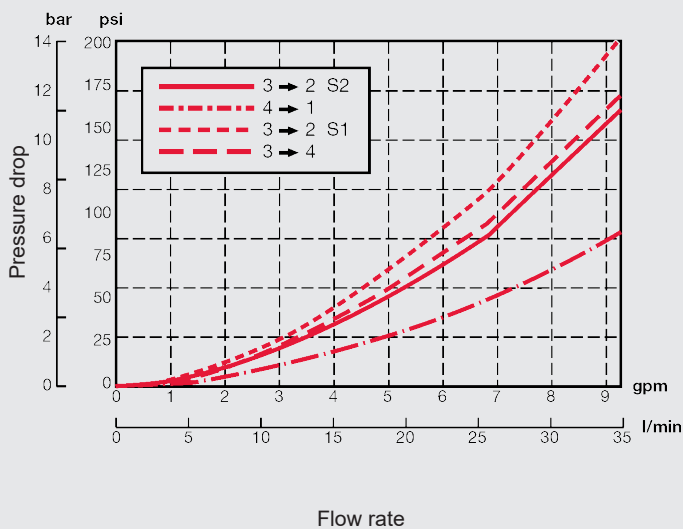
Other housing on request

Seal kits

| Code | Material | Part no. |
|----------------------|----------|----------|
| FS UNF 10/N SEAL KIT | NBR | 3651557 |
| FS UNF 10/V SEAL KIT | FKM | 3651559 |

TYPICAL PERFORMANCE

measured at $v = 34 \text{ mm}^2/\text{s}$, $T_{\text{oil}} = 46^\circ \text{C}$



Note

The information in this brochure relates to the operating conditions and applications described. For applications not described, please contact the relevant technical department.
Technical modifications are reserved.

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