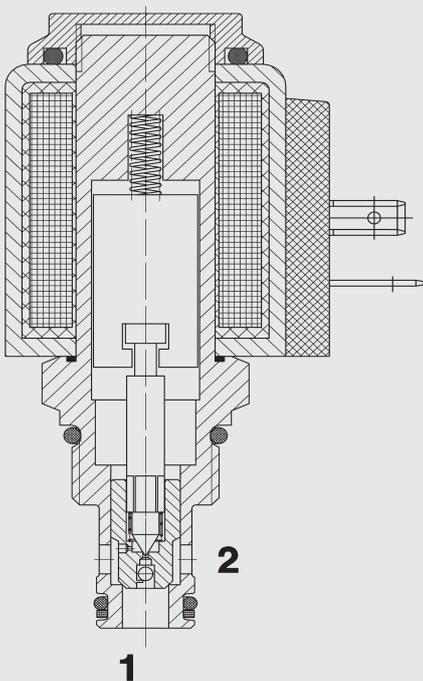


Up to 38 l/min
Up to 350 bar

FUNCTION



The directional valve is a pilot-operated valve in a poppet design. When the solenoid coil is not energised, the valve is closed from port 2 to port 1. There is free flow from port 1 to port 2. When energised, the valve allows flow in both directions.

Please mind:

In pilot operated solenoid valves, shift performance and response times depend i.a. very much on pressure drop and volume flow during actuation.

2/2 Solenoid Directional Valve Poppet Type, Pilot-Operated Normally Closed (Reverse Flow) UNF Cartridge – 350 bar

WS08ZR -01/-30

FEATURES

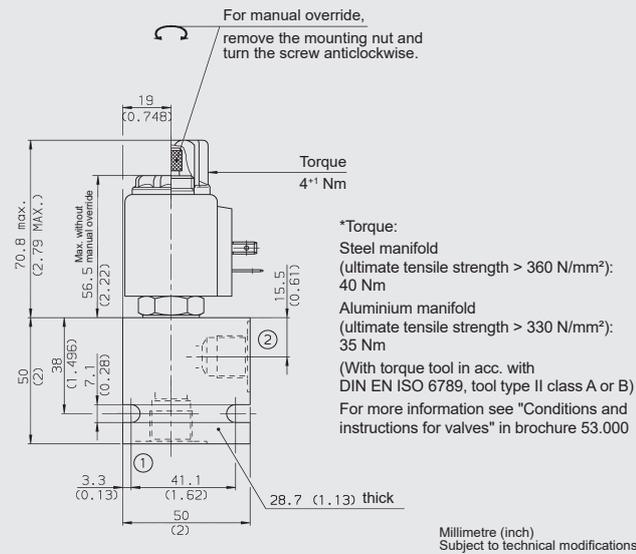
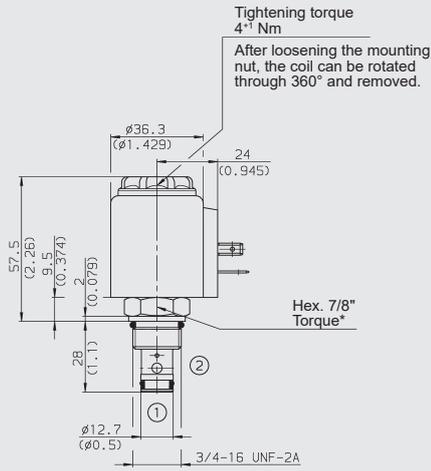
- Coil seals protect the solenoid system
- Wide variety of connectors available
- Excellent switching performance by high power HYDAC solenoid
- External surfaces with advanced corrosion protection due to Zn-Ni coating (1,000 h salt spray test)

SPECIFICATIONS*

Operating pressure:	Max. 350 bar
Flow rate:	Max. 38 l/min
Leakage:	Leak-free max. 5 drops/min (0.25 cm ³ /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
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:	≤ 210 bar: min. 20/18/15 > 210 bar: min. 18/16/13
MTTF _d :	150 – 1200 years, according to DIN EN ISO 13849-1
Installation position:	No orientation restrictions
Material:	Valve body: Steel Piston: Hardened and ground steel Seals: NBR (standard) FKM (optional, media temperature range -20°C to +120°C) Back-up rings: PTFE Solenoid coil: Steel / polyamide
Cavity:	FC08-2
Weight:	Complete valve: 0.33 kg Coil only: 0.19 kg
Electrical data:	
Response time: (at p _{max} , Q _{max} , v = 34 mm ² /s)	Energised: approx. 35 ms De-energised: approx. 50 ms substantially extended response times possible at other operating conditions
Type of voltage:	DC: DC solenoid AC: AC solenoid with a bridge rectifier built into the coil
Rated current at 20°C:	1.5 A at 12 V DC 0.8 A at 24 V DC
Voltage tolerance:	± 15% of rated voltage
Coil duty rating:	Continuous up to max. 115% of rated voltage at max. 60°C ambient temperature
Coil type:	Coil...-40-1836

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

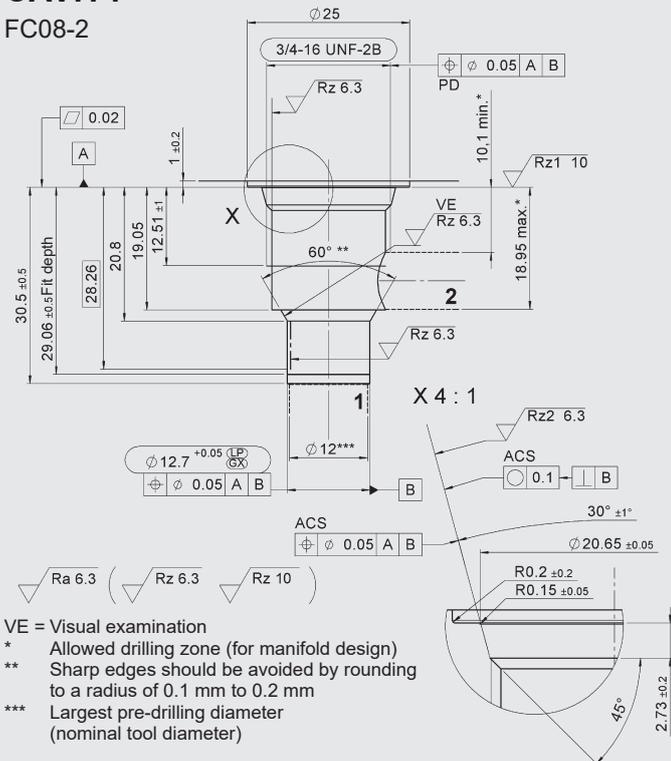
DIMENSIONS



Millimetre (inch)
Subject to technical modifications

CAVITY

FC08-2



Form tools

Tool	Part no.
Countersink	175473
Reamer	175474

Millimetre (inch)
Subject to technical modifications

MODEL CODE

WS08ZR - 01 M - C - N - 24 DG

Basic model

Directional valve, UNF

Type

01 = standard
30 = with screen at port 2

Manual override

No details = without manual override
M = manual override

Body and ports

C = cartridge only

Sealing material

N = NBR (standard)
V = FKM

Coil voltage

DC voltages

12 = 12 VDC
24 = 24 VDC

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, form A to EN 175301-803
DK = KOSTAL threaded connection M27x1
DL = two flying leads, 457 mm long, 0.75 mm²
DN = Deutsch connector, 2-pole, axial
DT = AMP Junior Timer, 2-pole, radial

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

Other connectors on request

Standard models

Model code	Part no.
WS08ZR-01-C-N-12DG	558859
WS08ZR-01-C-N-24DG	562806
WS08ZR-01-C-N-230AG	3043419
WS08ZR-30-C-N-12DG	3381409

Other versions on request

Standard in-line bodies

Code	Material	Ports	Pressure	Part no.
FH082-SB3	Steel, zinc-plated	G3/8"	350 bar	560919
FH082-AB3	Aluminium, anodised	G3/8"	210 bar	3011423

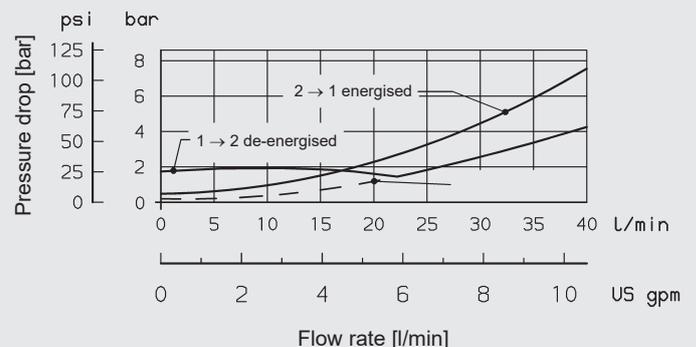
Other housing upon request

Seal kits

Code	Material	Part no.
FS UNF 08/N	NBR	3651385
FS UNF 08/V	FKM	3651356

TYPICAL PERFORMANCE

Characteristics for version -01: measured at $v = 34 \text{ mm}^2/\text{s}$, $T_{oil} = 46^\circ\text{C}$



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. Technical modifications are reserved.

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