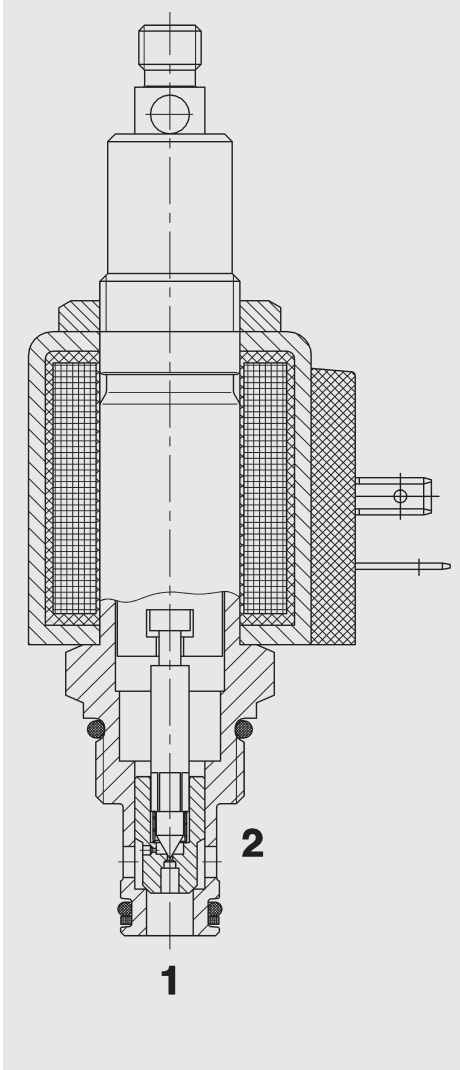


FUNCTION



The directional valve is a pilot operated valve in poppet style. When the solenoid coil is not energized, the valve is closed from port 2 to port 1. Flow is permitted from port 1 to port 2. When energized, there is free flow through the valve from port 2 to port 1. Return flow from port 1 to 2 is prevented. **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 Spring-Return Manual Override Normally Closed UNF Cartridge – 350 bar WS08Z-01J

FEATURES

- Excellent switching performance by high power HYDAC solenoid
- Solenoid coil available with wide variety of connectors
- Wide variety of connectors available
- Exposed surfaces zinc-nickel plated for increased corrosion protection (1.000 h Salt spray test)

SPECIFICATIONS*

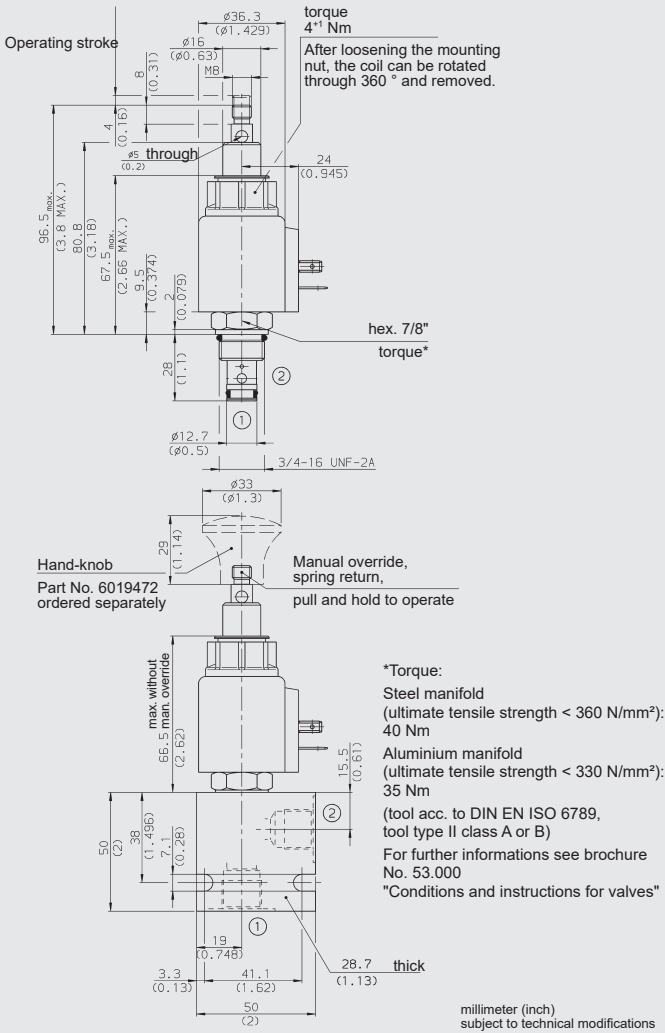
Operating pressure:	max. 350 bar
Nominal flow:	max. 38 l/min
Leakage:	Leakage-free max. 5 drops/min (0,25 cm ³ /min) at 350 bar
Media operating temperature range:	min. -20 °C to max. +100 °C
Ambient temperature range:	min. -20 °C to max. + 60 °C
Operating fluid:	Hydraulic oil to DIN 51524 Part 1, 2 and 3
Viscosity range:	min. 7.4 mm ² /s to max. 420 mm ² /s
Filtration:	Class 21/19/16 according to ISO 4406 or cleaner
MTTF _d :	150 - 1200 years, according to DIN EN ISO 13849-1
Installation:	No orientation restrictions
Materials:	Valve body: free-cutting steel Poppet: hardened and ground steel Seals: NBR (standard) FKM (optional, media temperature range -20 °C to +120 °C) Back-up rings: PTFE
Cavity:	FC08-2
Weight:	Valve complete: 0.36 kg Coil only: 0.19 kg

Electrical data

Coil duty rating:	Continuous up to max. 115% of the nominal voltage at 60 °C ambient temperature
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
Manual override:	The pull-force required is dependent on the operating pressure max. approx. 150 N. The max. permitted pull-force is 180 N
Response time: (at p _{max} , Q _{max} , v = 34 mm ² /s)	energized: approx. 35 ms de-energized: approx. 50 ms substantially extended response times possible at other operating conditions
Coil type:	Coil...-40-1836

* see "Conditions and instructions for valves" in brochure 53.000

DIMENSIONS



MODEL CODE

WS08Z - 01 J - C - N - 24 DG

Basic model

Directional poppet valve, UNF

Type

01 = standard

Manual override

J = pull-and-hold, spring-return manual override

Body and ports*

C = cartridge only

Seals

N = NBR (standard)

V = FKM

Nominal voltage for actuating solenoid

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 type A to EN 175301-803

DK = KOSTAL threaded connection M27x1

DL = 2 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 type A to EN 175301-803

Other connectors on request

Standard models

Model code	Part No.
WS08Z-01J-C-N-24DG	3122463
WS08Z-01J-C-N-230AG	3122464

*Standard in-line bodies

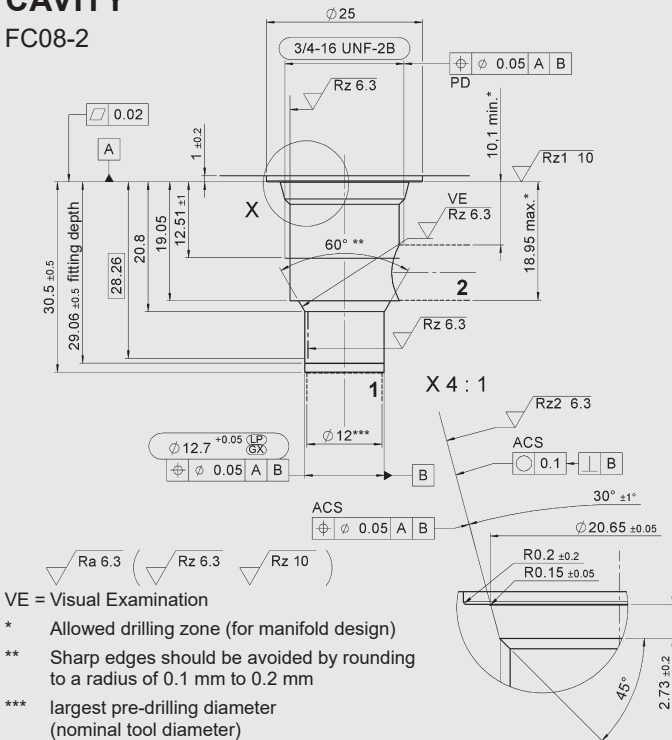
Code	Part No.	Material	Ports	Pressure
FH082-SB3	560919	Steel, zinc-plated	G3/8"	350 bar
FH082-AB3	3011423	Aluminium, anodized	G3/8"	210 bar

Seal kits

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

CAVITY

FC08-2

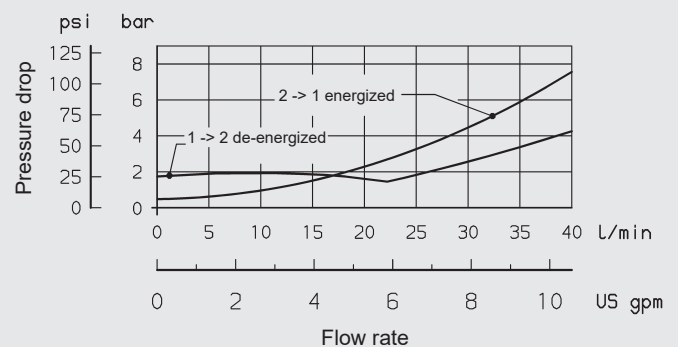


Form tools

Tool	Part No.
Countersink	175473
Reamer	175474

TYPICAL 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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