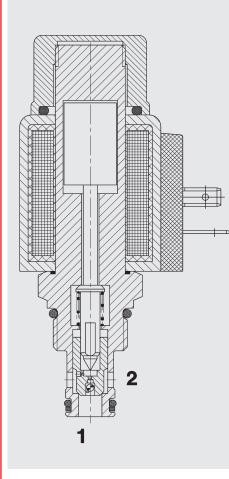


FUNCTION



The directional valve is a pilot operated valve in poppet style.

When the solenoid coil is not energized, the valve is open in both directions. When the solenoid coil is energized, the valve is closed from port 2 to port 1. In the reverse direction from port 1 to 2 there is free flow through the valve when the pressure force on the piston exceeds the solenoid force (approx. 9 to 20 bar). <u>Please mind</u>: 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 Open (Reverse Flow) UNF Cartridge – 350 bar WS08YR-01

FEATURES

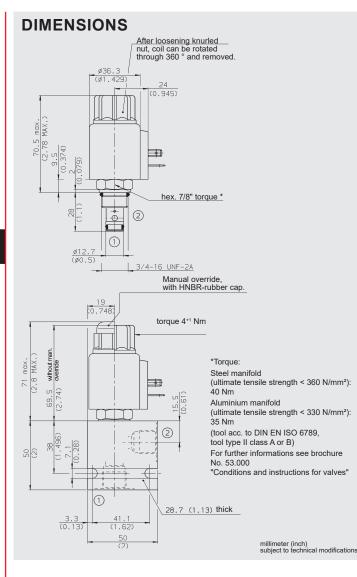
- Coil seals protect the solenoid system
- Wide variety of connectors available
- Excellent switching performance by high power HYDAC solenoid
- Exposed surfaces zinc-nickel plated for increased corrosion protection (1.000 h Salt spray test)

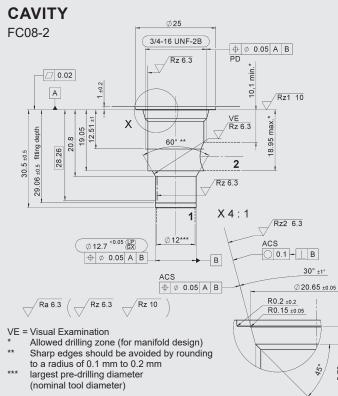
SPECIFICATIONS*

Operating pressure:	max. 350 bar		
Nominal flow:	max. 38 l/min		
Leakage:	leakage-free		
	max. 5 drops/min (0,25 cm³/min) at 350 bar		
Media operating temperature range:	min20 °C to max. +100 °C		
Ambient temp. range:	min20 °C to max. + 60 °C		
Operating fluid:	Hydraulic oil to DIN 51524 Part 1, 2 and 3		
Viscosity range:	min. 7.4 mm²/s to max. 420 mm²/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		
	Piston: hardened and around steel		
	Seals: NBR (standard)		
	FKM (optional, media		
	temperature range		
	-20 °C to +120 °C)		
	Back-up rings: PTFE		
	Coil: Steel / Polyamide		
Cavity:	FC08-2		
Weight:	Valve complete: 0.33 kg		
	Coil only: 0.19 kg		
Electrical data			
Response time:	energized: approx. 50 ms		
(at p_{max} , Q_{max} , $v = 34 \text{ mm}^2/\text{s}$)	de-energized: approx. 35 ms		
	substantially extended response times possible at other operating conditions		
Type of voltage:	DC: direct current solenoid		
<u>AC</u> : alternating current solenoid bridge rectifier built into the			
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:	Coil40-1836		

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

EN 5.908.5/11.18





Form tools

Tool	Part No.
Countersink	175473
Reamer	175474

MODEL CODE

 $\underline{WS08YR} - \underline{01} \ \underline{M} - \underline{C} - \underline{N} - \underline{24} \ \underline{DG}$ Basic Model Directional poppet valve, UNF <u>Type</u> 01 = standard Manual override No details = without manual override M = manual override Body and Ports* Cartridge only Seals = NBR Ν V = FKM Coil voltage DC voltages 12 = 12 V DC 24 = 24 V DC <u>AC voltages</u> (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.
WS08YR-01-C-N-24DG	562805
WS08YR-01-C-N-230AG	3043387
Other models on request	

* Standard in-line bodies

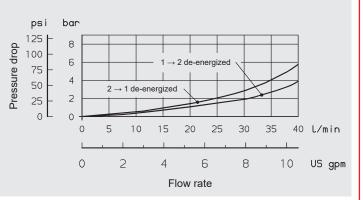
Code	Part No.	Material	Ports	Pressure
FH082-SB3	560919	Steel, zinc-plated	G3/8"	350 bar
FH082-AB3	3011423	Aluminium, clear anodized	G3/8"	210 bar
Other housings	s on request			

Seal kits

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

TYPICAL PERFORMANCE

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



NOTE

2.73 ±0.2

millimeter (inch) subject to technical modifications 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: valves@hydac.com