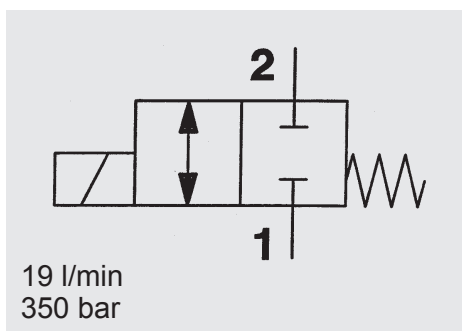
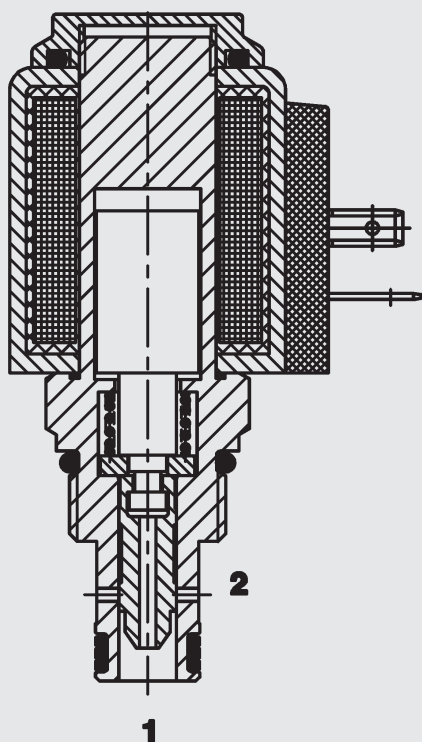




FUNCTION



In the de-energized mode, the valve blocks flow in both directions. When energized the valve allows flow in both directions.

2/2 Solenoid Directional Valve **UNF** Spool Type, Direct-Acting SAE-08 Cartridge – 350 bar WK08W-01

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	
Internal leakage:	150 cm ³ /min at 250 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 and 2	
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	
Materials:	Valve body:	free-cutting steel
	Spool:	hardened and ground steel
	Seals:	NBR (standard) FKM (optional, media temperature range -20 °C to +120 °C)
	Back-up rings:	PTFE
	Coil:	steel / polyamide
MTTF _d :	150 years (see "Conditions and instructions for valves" in brochure 5.300)	
Mounting position	No orientation restrictions	
Cavity:	FC08-2	
Weight:	Valve complete	0.36 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	
	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	

Technical drawing of the M2000 series magnetic contactor, showing front and side views with dimensions in millimeters (mm) and inches (in).

Front View Dimensions:

- Top mounting hole diameter: $\varnothing 36.3$ (1.429)
- Top mounting hole spacing: 24 (0.945)
- Overall height: 60 (2.36)
- Height from base to top mounting hole: 12 (0.472)
- Base mounting hole diameter: $\varnothing 12.7$ (0.5)
- Base mounting hole spacing: 28 (1.1)
- Base mounting hole diameter: $\varnothing 0.5$
- Base mounting hole spacing: 3/4-16 UNF-2A

Side View Dimensions:

- Overall width: 50 (2)
- Width from base to top mounting hole: 38 (1.496)
- Width from base to top mounting hole: 7.1 (0.28)
- Width from base to top mounting hole: 3.3 (0.13)
- Width from base to top mounting hole: 41.1 (1.62)
- Width from base to top mounting hole: 50 (2)
- Width from base to top mounting hole: 19 (0.748)
- Width from base to top mounting hole: 15.5 (0.61)
- Width from base to top mounting hole: 30 (1.13) thick

Other Dimensions and Notes:

- Hex. 7/8" torque 25⁺⁶ Nm
- Manual override
- After loosening knurled nut, manual operation is possible by twisting button anticlockwise.
- torque 4⁺¹ Nm
- 72.8 max. (2.866 MAX.)
- 59 max. without man. override (2.32)
- For termination see Model code

millimeter (inch) subject to technical modifications

Technical drawing of a mechanical part showing two views: a front view (top) and a side view (bottom).

Front View (Top):

- Overall width: 28.56 (1.125)
- Overall height: 14.68 (0.578)
- Left side features a countersink with a diameter of $\phi 12.5$ (0.492) and a depth of 1.43 (0.45).
- Right side features a reamer with a diameter of $\phi 20.6$ (0.812) and a depth of 1.01 (0.04).
- Internal features include a 60° angle, a radius of R0.4, and a radius of R0.1.
- Surface finish requirements are indicated by symbols: $\sqrt{0.05 (0.002)}$ A and $\sqrt{0.1 (0.004)}$ A.

Side View (Bottom):

- Overall width: 28.56 (1.125)
- Overall height: 14.68 (0.578)
- Left side features a countersink with a diameter of $\phi 12.5$ (0.492) and a depth of 1.43 (0.45).
- Right side features a reamer with a diameter of $\phi 20.6$ (0.812) and a depth of 1.01 (0.04).
- Internal features include a 45° angle, a radius of R0.4, and a radius of R0.1.
- Surface finish requirements are indicated by symbols: $\sqrt{0.05 (0.002)}$ A and $\sqrt{0.1 (0.004)}$ A.

Form tools

Tool	Part No.
Countersink FC08-2	175473
Reamer FC08-2	175474

millimeter (inch)
subject to technical modifications

WK08W - 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 mm²
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

Model code	Part No.
WK08W-01-C-N-24DG	3018585
WK08W-01-C-N-230AG	3044038
Other models on request	

Code	Part No.	Material	Ports	Pressure
FH082-SB3	560919	Steel, zinc-plated	G3/8	420 bar
FH082-AB3	3011423	Aluminium, clear anodized	G3/8	210 bar
Other housings on request				

Code	Material	Part No.
FS082-N SEAL KIT	NBR	3033920
FS082-V SEAL KIT	FKM	3051756

The graph illustrates the relationship between pressure drop and flow rate for a 1/2 inch diameter pipe. The y-axis represents pressure drop in both PSI (0 to 200) and bar (0.0 to 16.0). The x-axis represents flow rate in both l/min (0 to 20) and US gpm (0 to 6). A curve shows that pressure drop increases with flow rate. A box labeled '1 <=> 2' is placed on the curve, indicating the flow direction.

Flow rate (l/min)	Flow rate (US gpm)	Pressure drop (PSI)	Pressure drop (bar)
0	0	0	0.0
5	1.0	~10	~0.7
10	2.0	~40	~2.8
15	3.0	~90	~6.3
20	4.0	~160	~11.2

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.