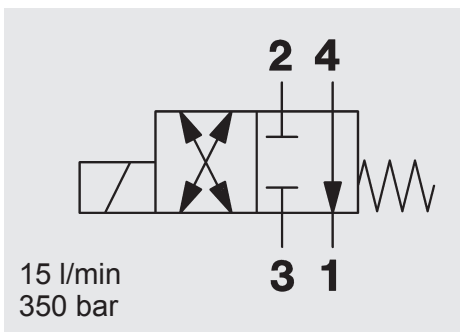
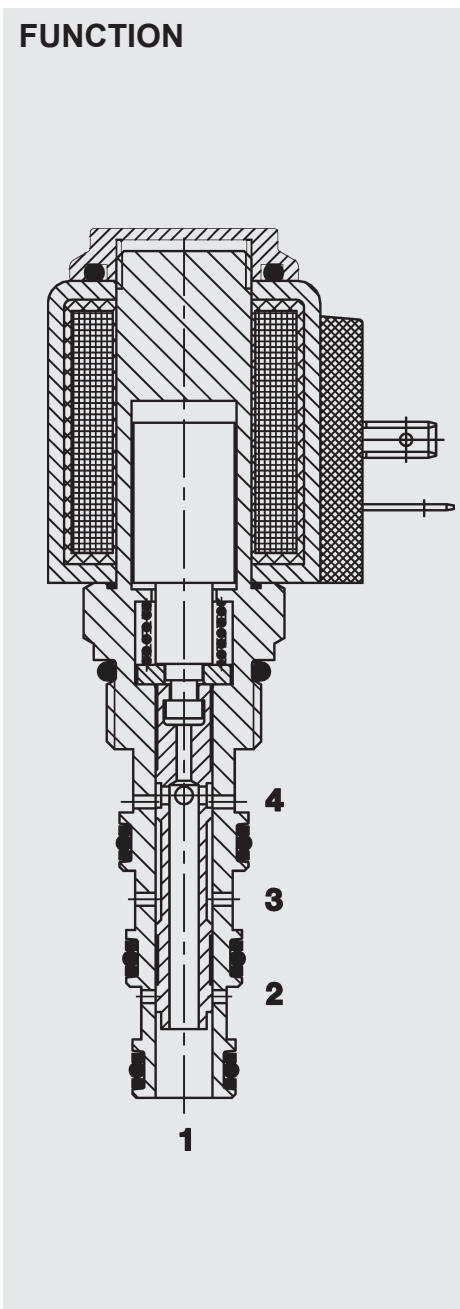




FUNCTION



When the solenoid coil is de-energized, there is flow through the valve from port 4 to port 1. Ports 2 and 3 are closed. When the solenoid coil is energized, there is free flow through the valve from port 3 to 4 or from 4 to 3 and also from port 2 to 1 or from 1 to 2.

4/2 Solenoid Directional Valve **UNF** Spool Type - Direct-Acting SAE-08 Cartridge – 350 bar WK08P-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. 15 l/min (Consult HYDAC for flow rates above 207 bar)
Internal leakage:	max. 90 cm ³ /min at 250 bar and 34 mm ² /s
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
MTTF _d :	150 years (see "Conditions and instructions for valves" in brochure 5.300)
Materials:	Valve body: free-cutting steel Closing elements: hardened and ground steel Seals: NBR (standard) FKM (optional, media temperature range -20 °C to +120 °C) Back-up rings: PTFE Coil: Steel/Polyamide
Cavity:	FC08-4
Weight:	Valve complete 0.38 kg Coil only 0.19 kg

Electrical data

Current draw at 20 °C:	1.5 A at 12 V DC 0.8 A at 24 V DC
Coil duty rating:	Continuous up to max. 115% of the nominal voltage at 60 °C ambient temperature
Coil type:	Coil...-40-1836

[illegible]

FC08-4

Technical drawing of a countersink tool (FC08-4) showing dimensions in millimeters (mm) and inches (inch). The drawing includes a side view and a cross-sectional view (X 5:1 magnification).

Dimensions (mm):

- Overall length: 53.98 (2.125)
- Section 1: 47.6 (1.875)
- Section 2: 41.91 (1.65)
- Section 3: 33.3 (1.312)
- Section 4: 26.9 (1.06)
- Section 5: 19.05 (0.75)
- Section 6: 11.43 (0.45)
- Section 7: 1.01 (0.04)
- Section 8: 15.88 (+0.05, -0.002)
- Section 9: 6.25 (+0.002, -0.002)
- Section 10: 14.3 (0.563)
- Section 11: 28.98 (1.141)
- Section 12: 43.18 (1.7)

Surface Finish (Ra):

- Section 1: Ra 1.6
- Section 2: Ra 1.6
- Section 3: Ra 1.6
- Section 4: Ra 1.6
- Section 5: Ra 1.6
- Section 6: Ra 1.6
- Section 7: Ra 1.6
- Section 8: Ra 1.6
- Section 9: Ra 1.6
- Section 10: Ra 1.6
- Section 11: Ra 1.6
- Section 12: Ra 1.6

Geometric Tolerances:

- Section 1: $\perp 0.05 (0.002) \text{ A}$
- Section 2: $\perp 0.1 (0.004) \text{ A}$
- Section 3: $\perp 0.05 (0.002) \text{ A}$
- Section 4: $\perp 0.1 (0.004) \text{ A}$
- Section 5: $\perp 0.05 (0.002) \text{ A}$
- Section 6: $\perp 0.05 (0.002) \text{ A}$
- Section 7: $\perp 0.05 (0.002) \text{ A}$
- Section 8: $\perp 0.05 (0.002) \text{ A}$
- Section 9: $\perp 0.05 (0.002) \text{ A}$
- Section 10: $\perp 0.05 (0.002) \text{ A}$
- Section 11: $\perp 0.05 (0.002) \text{ A}$
- Section 12: $\perp 0.05 (0.002) \text{ A}$

Form tools:

Tool	Part No.
Countersink FC08-4	175646
Reamer FC08-4	175647

millimeter (inch)
subject to technical modifications

WK08P - 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
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

Code	Part No.
WK08P-01-C-N-24DG	3021285
WK08P-01-C-N-230AG	3043980
Other models on request	

Code	Part No.	Material	Ports	Pressure
FH084-SB3	563383	Steel, zinc-plated	G3/8	420 bar
FH084-AB3	3011407	Aluminium, clear anodized	G3/8	210 bar

Code	Material	Part No.
FS084-N SEAL KIT	NBR	3071272
FS084-V SEAL KIT	FKM	3071273

A line graph showing Pressure drop (PSI) on the y-axis versus Flow rate (l/min) on the x-axis. The y-axis ranges from 0 to 15.0 PSI in increments of 2.5. The x-axis ranges from 0 to 20 l/min in increments of 5. Three curves are plotted:

- 3 => 4** (Solid line): Shows the highest pressure drop, starting at (0,0) and reaching approximately 12.5 PSI at 20 l/min.
- 4 => 1** (Dash-dot line): Shows intermediate pressure drop, starting at (0,0) and reaching approximately 10.0 PSI at 20 l/min.
- 2 => 1** (Dotted line): Shows the lowest pressure drop, starting at (0,0) and reaching approximately 6.5 PSI at 20 l/min.

The graph includes a legend box in the upper left quadrant with the following entries:

- 3 => 4 (Solid line)
- 4 => 1 (Dash-dot line)
- 2 => 1 (Dotted line)

The graph also features a secondary y-axis on the left labeled 'bar' with a scale from 0 to 15.0, and a secondary x-axis at the bottom labeled 'Flow rate' with a scale from 0 to 5, and a unit 'US gpm' at the bottom right.

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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