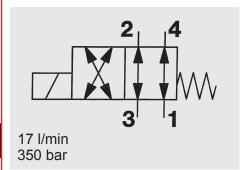


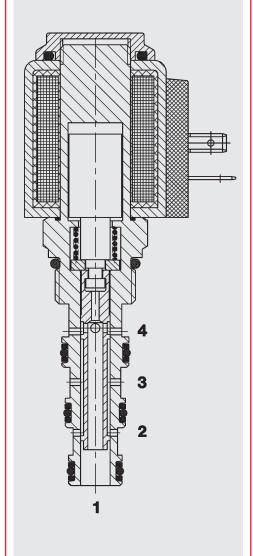
INTERNATIONAL



4/2 Solenoid Directional Valve Spool Type, Direct-Acting SAE-08 Cartridge – 350 bar

WK08X-01

FUNCTION



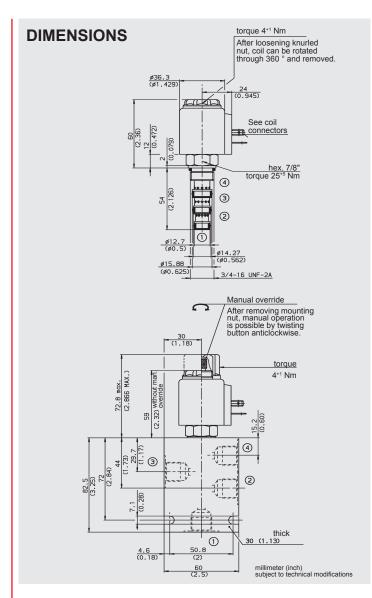
When de-energized, the valve allows flow from port 3 to 2 or from 2 to 3 and from port 4 to 1 or 1 to 4. When the solenoid coil is energized, there is free flow through the valve from port 3 to 4 or from 4 to 3 and also from port 2 to 1 or from 1 to 2.

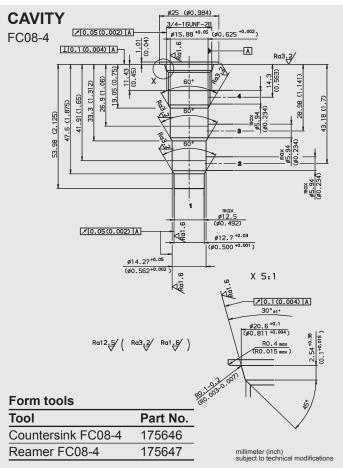
FEATURES

- 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

Nominal flow: max. 17 /min Consult HYDAC for flow ratings above 207 bar Internal leakage: 90 cm³/min at 250 bar and 34 mm²/s Media operating temperature range: min20 °C to max. +100 °C Ambient temperature range: min30 °C to max. +60 °C Operating fluid: Hydraulic oil to DIN 51524 Part 1 and 2 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 years (see "Conditions and instructions for valves" in brochure 5.300) Installation: No orientation restrictions Materials: Valve body: free-cutting steel Spool: hardened and ground 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 Cavity: FC08-4 Weight: Valve complete 0.38 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 Utlage tolerance: ± 15% of the nominal voltage Coil under the prevalure Coil under t	Operating pressure:	max. 350 bar		
Media operating temperature range: Ambient temperature range: Ambient temperature range: Min30 °C to max. + 60 °C Operating fluid: Hydraulic oil to DIN 51524 Part 1 and 2 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 years (see "Conditions and instructions for valves" in brochure 5.300) Installation: No orientation restrictions 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 Cavity: FC08-4 Weight: Valve complete O.38 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 only voltage at 60 °C ambient temperature	Nominal flow:	Consult HYDAC for flow ratings		
Ambient temperature range: Derating fluid: Wiscosity range: Min30 °C to max. + 60 °C Deprating fluid: Hydraulic oil to DIN 51524 Part 1 and 2 Min. 7.4 mm²/s to max. 420 mm²/s Class 21/19/16 according to ISO 4406 or cleaner MTTF _d : 150 years (see "Conditions and instructions for valves" in brochure 5.300) Installation: No orientation restrictions 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 Cavity: Valve complete O.38 kg Coil only O.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	Internal leakage:	90 cm³/min at 250) bar and 34 mm²/s	
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Cleaner 150 years (see "Conditions and instructions for valves" in brochure 5.300)	Viscosity range:			
Instructions for valves" in brochure 5.300) Installation: No orientation restrictions Materials: Valve body: 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 Cavity: Valve complete 0.38 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	Filtration:	· ·		
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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 Cavity: FC08-4 Weight: Valve complete 0.38 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	Installation:	No orientation restrictions		
Seals: 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: 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	Materials:	Valve body:	free-cutting steel	
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: 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		Spool:		
Coil: steel / polyamide Cavity: FC08-4 Weight: Valve complete 0.38 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		Seals:	FKM (optional, media temperature range	
Cavity: FC08-4 Weight: Valve complete 0.38 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		Back-up rings:	PTFE	
Weight: Valve complete 0.38 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:	steel / polyamide	
Coil only 0.19 kg Electrical data: Type of voltage: DC solenoid,	Cavity:	FC08-4		
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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 only	0.19 kg	
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	Electrical data:			
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	Type of voltage:	DC solenoid,		
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 duty rating: Continuous up to max. 115% of the nominal voltage at 60 °C ambient temperature	Current draw at 20 °C:			
nominal voltage at 60 °C ambient temperature	Voltage tolerance:	± 15% of the nominal voltage		
Coil type: Coil40-1836	Coil duty rating:	nominal voltage at 60 °C ambient		
	Coil type:	Coil40-1836		





MODEL CODE WK08X - 01 M - C - N - 24 DGBasic model -Directional spool valve, UNF Type 01 = standard Manual override no details = without manual override M = manual override Body and ports* = cartridge only SB3 = G3/8 ports, steel body AB3 = G3/8 ports, aluminium body Ν = NBR (standard) = FKM Coil voltage **DC** voltages 12 = 12 V DC 24 = 24 V DCAC 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

Standard models

Model Code	Part No.
WK08X-01-C-N-24DG	3021149
WK08X-01-C-N-230AG	3044054
Other housings on request	

*Standard in-line bodies

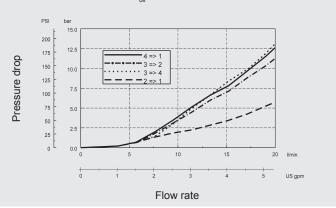
Code	Part No.	Material	Ports	Pressure
FH084-SB3	563383	Steel, zinc-plated	G3/8	420 bar
FH084-AB3	3011407	Aluminium, anodized	G3/8	210 bar

Seal kits

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

PERFORMANCE

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. Subject to technical modifications.

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