



FUNCTION



When de-energized, the valve allows flow from port 1 to 2 or from port 2 to 1, while blocking flow at port 3. When energized, the valve allows flow from port 3 to 2 or from port 2 to 3, while blocking flow at port 1. **3/2 Solenoid directional Valve spool type, direct-acting UNF Cartridge – 350 bar** WK08C-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 (1000 h Salt spray test)

SPECIFICATIONS*

Operating pressure:	max. 350 bar		
Nominal flow:	max. 19 l/min		
Internal leakage:	max. 90 cm ³ /min at 250 bar and 34 mm ² /s		
Media operating temperature range:	min20 °C to m	ax. +120 °C	
Ambient temperature range:	min20 °C to m	min20 °C to max. + 60 °C	
Operating fluid:	Hydraulic oil to E	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		
Material:	Valve body:	steel	
	Piston:	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:	Coil: FC08-3	steel / polyamide	
Cavity: Weight:	Coil: FC08-3 Valve complete	steel / polyamide 0.37 kg	
Cavity: Weight:	Coil: FC08-3 Valve complete Coil only	steel / polyamide 0.37 kg 0.19 kg	
Cavity: Weight: Electrical data	Coil: FC08-3 Valve complete Coil only	steel / polyamide 0.37 kg 0.19 kg	
Cavity: Weight: Electrical data Response time:	Coil: FC08-3 Valve complete Coil only energized:	steel / polyamide 0.37 kg 0.19 kg approx. 20 - 85 ms	
Cavity: Weight: Electrical data Response time: (at p _{max} , Q _{max} , v = 34 mm²/s)	Coil: FC08-3 Valve complete Coil only energized: de-energized: substantially exter possible at other	steel / polyamide 0.37 kg 0.19 kg approx. 20 - 85 ms approx. 40 - 80 ms ended response times operating conditions	
Cavity: Weight: Electrical data Response time: (at p _{max} , Q _{max} , v = 34 mm²/s) Type of voltage:	Coil: FC08-3 Valve complete Coil only energized: de-energized: substantially exte possible at other DC: direct currer <u>AC</u> : alternating c bridge rectif	steel / polyamide 0.37 kg 0.19 kg approx. 20 - 85 ms approx. 40 - 80 ms ended response times operating conditions t solenoid current solenoid with a ier built into the coil	
Cavity: Weight: Electrical data Response time: (at $p_{max}, Q_{max}, v = 34 \text{ mm}^2/\text{s})$ Type of voltage: Current draw at 20 °C:	Coil: FC08-3 Valve complete Coil only energized: de-energized: substantially extr possible at other DC: direct currer AC: alternating c bridge rectift 1.5 A at 12 V DC 0.8 A at 24 V DC	steel / polyamide 0.37 kg 0.19 kg approx. 20 - 85 ms approx. 40 - 80 ms ended response times operating conditions ot solenoid current solenoid with a ier built into the coil	
Cavity: Weight: Electrical data Response time: (at p _{max} , Q _{max} , v = 34 mm²/s) Type of voltage: Current draw at 20 °C: Voltage tolerance:	Coil: FC08-3 Valve complete Coil only energized: de-energized: substantially exte possible at other DC: direct currer AC: alternating c bridge rectiff 1.5 A at 12 V DC 0.8 A at 24 V DC ± 15% of the nor	steel / polyamide 0.37 kg 0.19 kg approx. 20 - 85 ms approx. 40 - 80 ms ended response times operating conditions nt solenoid surrent solenoid with a ier built into the coil minal voltage	
Cavity: Weight: Electrical data Response time: (at p _{max} , Q _{max} , v = 34 mm²/s) Type of voltage: Current draw at 20 °C: Voltage tolerance: Coil duty rating:	Coil: FC08-3 Valve complete Coil only energized: de-energized: substantially exter possible at other DC: direct currer AC: alternating co bridge rectiff 1.5 A at 12 V DC 0.8 A at 24 V DC ± 15% of the nor Continuous up to of the nominal vo 60 °C ambient te	steel / polyamide 0.37 kg 0.19 kg approx. 20 - 85 ms approx. 40 - 80 ms ended response times operating conditions at solenoid current solenoid with a ier built into the coil minal voltage o max. 115% oltage at emperature	
Cavity: Weight: Electrical data Response time: (at p _{max} , Q _{max} , v = 34 mm²/s) Type of voltage: Current draw at 20 °C: Voltage tolerance: Coil duty rating: Coil type:	Coil: FC08-3 Valve complete Coil only energized: de-energized: substantially exte possible at other DC: direct currer AC: alternating c bridge rectiff 1.5 A at 12 V DC 0.8 A at 24 V DC ± 15% of the nor Continuous up to of the nominal vo 60 °C ambient te Coil40-1836	steel / polyamide 0.37 kg 0.19 kg approx. 20 - 85 ms approx. 40 - 80 ms ended response times operating conditions ot solenoid current solenoid with a ier built into the coil minal voltage o max. 115% oltage at emperature	

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

EN 5.906.5/06.19





Form tools

Tool	Part No.
Countersink	175644
Reamer	175645

MODEL CODE

 $\underline{WK08C} - \underline{01} \ \underline{M} - \underline{C} - \underline{N} - \underline{24} \ \underline{DG}$ Basic model Directional spool valve, UNF Туре 01 = standard Manual override No details = without manual override M = manual override Body and ports* C = cartridge only Seals N = NBR V = FKM Coil Voltage DC voltages: = 12 V DC 12 = 24 V DC 24 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.
WK08C-01-C-N-12DG	3020375
WK08C-01-C-N-24DG	3020388
WK08C-01-C-N-230AG	3043889
Other models on request	

Other models on request

*Standard in-line bodies

Code	Part No.	Material	Ports	Pressure	
FH083-SB3	560922	Steel, zinc-plated	G3/8"	350 bar	
FH083-AB3	3011427	Aluminium, anodized	G3/8"	210 bar	
Other bodies on request					

Seal kits

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

TYPICAL PERFORMANCE

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



Note

2.75

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.

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