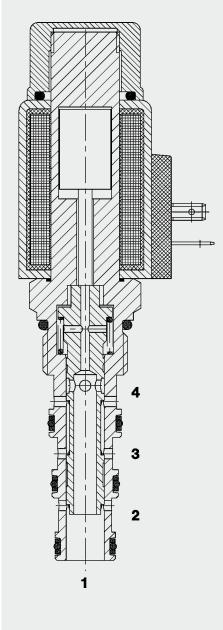


## FUNCTION



When de-energized, the valve allows flow in both directions between ports 3 and 4 and between ports 1 and 2. When energized, the valve allows flow in both directions between ports 4 and 1, while blocking flow at ports 2 and 3. **4/2 Solenoid Directional Valve UNF Spool Type, Direct-Acting SAE-10 Cartridge – 350 bar** WK10R-01

# FEATURES

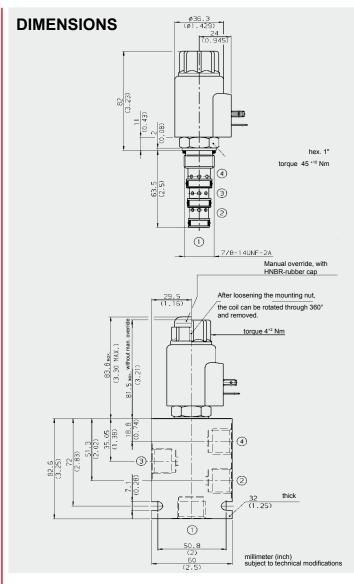
- External surfaces zinc-plated and corrosion-proof
- Hardened and ground internal valve components to ensure minimal wear and extended service life
- Coil seals protect the solenoid system
- Wide variety of connectors available
- Excellent switching performance by high power HYDAC solenoid
- Low pressure drop due to CFD optimized flow path

# SPECIFICATIONS

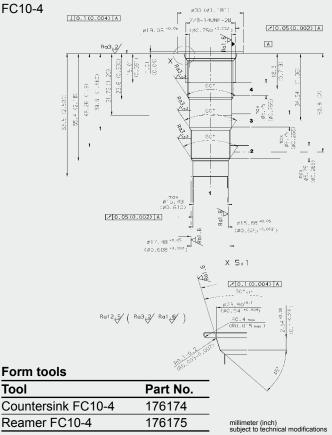
Operating pressure:	max. 350 bar			
Nominal flow:	max. 32 l/min	max. 32 l/min		
Internal leakage:	max. 160 cm³/min at 250 bar and 34 mm²/s			
Media operating temperature range:	min20 °C to m	nax. +120 °C		
Ambient temperature range:	min20 °C to max. +60 °C			
Operating fluid:	Hydraulic oil to DIN 51524 Part 1 and 2			
Viscosity range:	min. 7.4 mm <sup>2</sup> /s to max. 420 mm <sup>2</sup> /s			
Filtration:	Class 21/19/16 according to ISO 4406 or cleaner			
MTTF <sub>d</sub> :	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:	FC10-4			
Weight:	Valve complete	0.48 kg		
	Coil only	0.23 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:	2.22 A at 12 V DC 1.13 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:	Coil50-1836			

E 5.962.2/01.13

466 **HYDAC** 



# CAVITY



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 SB4 = G1/2 ports, steel body AB4 = G1/2 ports, steel body AB4 = G1/2 ports, aluminium body Seals N = NBR (standard) V = FKM Coil voltage DC voltages 12 = 12 V DC 24 = 24 V DC
Type   01 = standard   Manual override   no details = without manual override   M = manual override   Body and ports*   C = cartridge only   SB4 = G1/2 ports, steel body   AB4 = G1/2 ports, aluminium body   Seals   N = NBR (standard)   V = FKM   Coil voltages   12 = 12 V DC
no details = without manual override M = manual override Body and ports* C = cartridge only SB4 = G1/2 ports, steel body AB4 = G1/2 ports, aluminium body Seals N = NBR (standard) V = FKM Coil voltage DC voltages 12 = 12 V DC
C = cartridge only SB4 = G1/2 ports, steel body AB4 = G1/2 ports, aluminium body Seals N = NBR (standard) V = FKM Coil voltage DC voltages 12 = 12 V DC
N = NBR (standard) V = FKM Coil voltage DC voltages 12 = 12 V DC
DC voltages 12 = 12 V DC
AC voltages (bridge rectifier built into the coil) 24 = 24 V AC 230 = 230 V AC
Other voltages on request
Coil connectors (type 50-1836) DC: DG = DIN connector to EN 175301-803 DK = KOSTAL threaded connection M27x1 DL = 2 flying leads, 457 mm long, 0.75 mm <sup>2</sup> 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.
WK10R-01-C-N-24DG	3097259
WK10R-01-C-N-230AG	3097260
Other models on request	

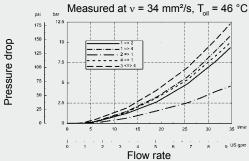
#### \*Standard line body

Code	Part No.	Material	Ports	Pressure
FH104-SB4	3037784	Steel, zinc-plated	G1/2	420 bar
FH104-AB4	3038097	Aluminium, anodized	G1/2	210 bar
Other bodies of	on request			

#### Seal kits

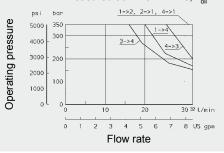
Code	Material	Part No.
FS104-N SEAL KIT	NBR	3051912
FS104-V SEAL KIT	FKM	3071275

# PERFORMANCE



## **OPERATING LIMITS**

Measured at v = 34 mm<sup>2</sup>/s, T<sub>oil</sub> = 46 °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. 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: flutec@hydac.com

## **HYDAC** | 467