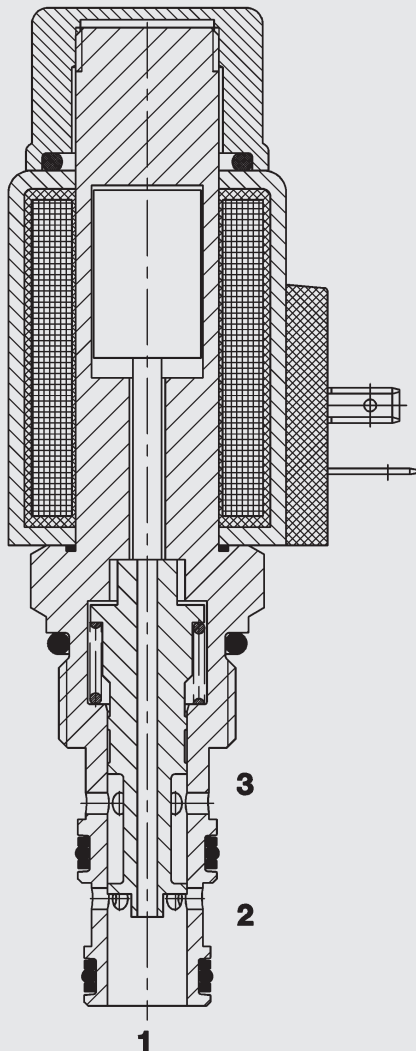


up to 32 l/min
up to 350 bar

FUNCTION



When de-energized, the valve allows flow in both directions between ports 2 to 1, while blocking flow at port 3.

When energized, the valve allows flow in both directions between ports 3 and 2, while blocking flow at port 1.

3/2 Solenoid Directional Valve Spool type, direct-acting UNF Cartridge – 350 bar WK10C-40

FEATURES

- Excellent switching performance by high power HYDAC solenoid
- Wide variety of connectors available
- Coil seals protect the solenoid system
- Exposed surfaces zinc-nickel plated for increased corrosion protection (1.000 h Salt spray test)

SPECIFICATIONS*

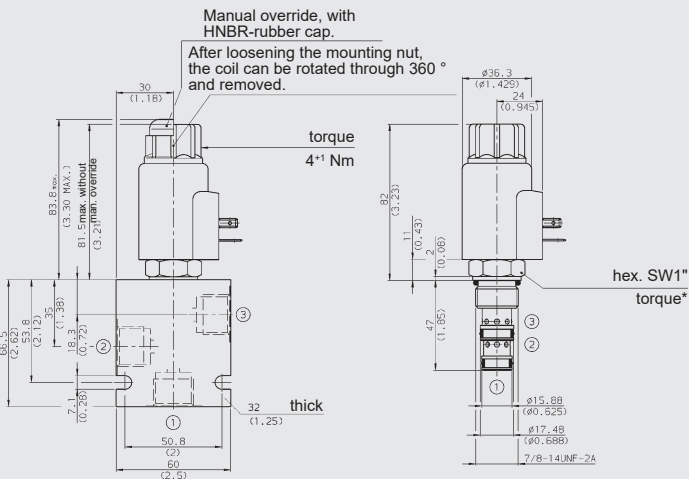
Operating pressure:	max. 350 bar
Nominal flow:	max. 32 l/min
Internal leakage:	max. 250 cm ³ /min at 250 bar and 34 mm ² /s
Media operating temperature range:	min. -20 °C to max. +100 °C
Ambient temperature range:	min. -20 °C to max. + 60 °C
Operating fluid:	Hydraulic oil to DIN 51524 Part 1, 2 and 3
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
Materials:	Valve body: 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:	FC10-3
Weight:	Valve complete: 0.47 kg
	Coil only: 0.23 kg

Electrical data

Coil duty rating:	Continuous up to max. 115% of the nominal voltage at 60 °C ambient temperature
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
Type of voltage:	<u>DC</u> : direct current solenoid <u>AC</u> : alternating current solenoid with a bridge rectifier built into the coil
Coil type:	Coil...-50-1836

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

DIMENSIONS



*Torque:

Steel manifold
(ultimate tensile strength < 360 N/mm²): 55 Nm

Aluminium manifold
(ultimate tensile strength < 330 N/mm²): 45 Nm

(tool acc. to DIN EN ISO 6789,
tool type II class A or B)

For further informations see brochure No. 53.000
"Conditions and instructions for valves"

millimeter
subject to technical modifications

MODEL CODE

WK10C - 40 M - C - N - 24 DG

Basic model

Directional spool valve, UNF

Type

40 = Δp-optimised

Manual override

No details = without manual override

M = manual override

Body and ports*

C = cartridge only

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 50-1836)

DC: DG = DIN connector to EN 175301-803

DK = KOSTAL threaded connection M27x1

DL = 2 flying leads, 457 mm long, 0.75 mm²

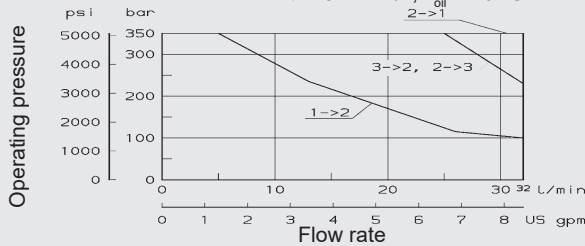
DN = Deutsch connector, 2-pole, axial

DT = AMP Junior Timer, 2-pole, radial

AC: AG = DIN connector to EN 175301-803

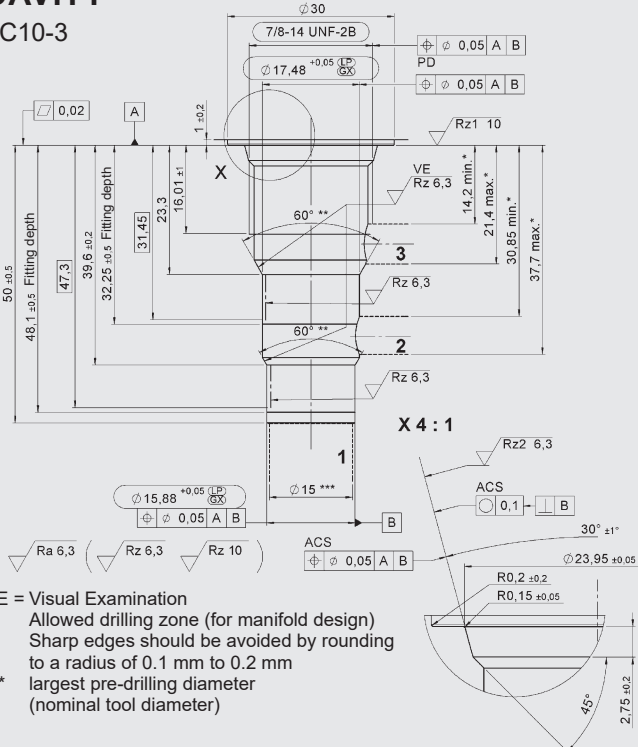
Other connectors on request

OPERATING LIMITS $v = 34 \text{ mm}^2/\text{s}$, $T_{oil} = 46 \text{ }^\circ\text{C}$



CAVITY

FC10-3



VE = Visual Examination

* Allowed drilling zone (for manifold design)
** Sharp edges should be avoided by rounding
to a radius of 0.1 mm to 0.2 mm

*** largest pre-drilling diameter
(nominal tool diameter)

Form tools

Tool	Part No.
Countersink	176282
Reamer	176283

millimeter
subject to technical modifications

Standard models

Model code	Part No.
WK10C-40-C-N-24DG	3129698
WK10C-40-C-N-230AG	3129699

*Standard in-line bodies

Code	Part No.	Material	Ports	Pressure
FH103-SB4	3037697	Steel, zinc-plated	G1/2"	350 bar
FH103-AB4	3038092	Aluminium, anodized	G1/2"	210 bar

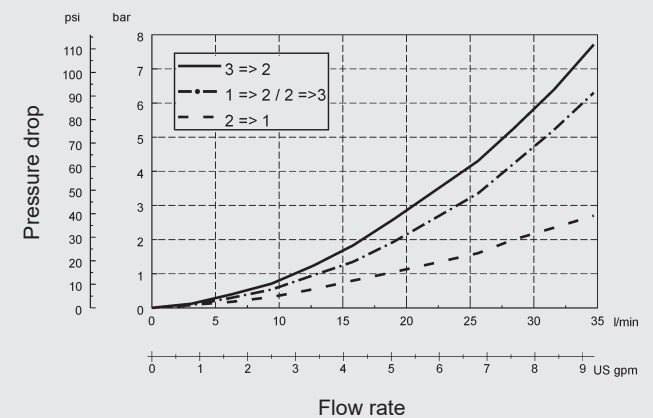
Other line bodies on request

Seal kits

Code	Material	Part No.
FS UNF 10/N	NBR	3651557
FS UNF 10/V	FKM	3651559

TYPICAL PERFORMANCE

Measured at $v = 33 \text{ mm}^2/\text{s}$, $T_{oil} = 46 \text{ }^\circ\text{C}$



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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