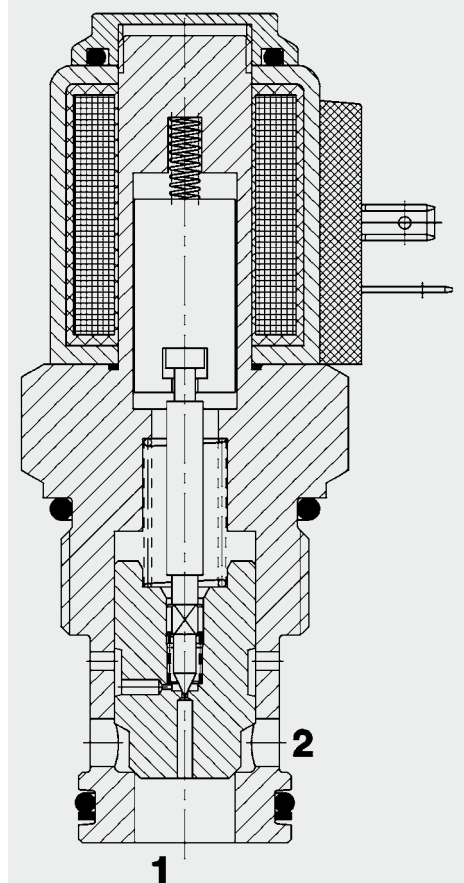


FUNCTION



When the solenoid coil is not energized, the valve is closed from port 2 to port 1. Flow is permitted from port 1 to port 2.

When energized, there is free flow through the valve from port 2 to port 1. Return flow from port 1 to 2 is prevented.

2/2 Solenoid Directional Valve UNF Poppet Type, Pilot-Operated Normally Closed SAE-16 Cartridge – 350 bar WS16Z-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

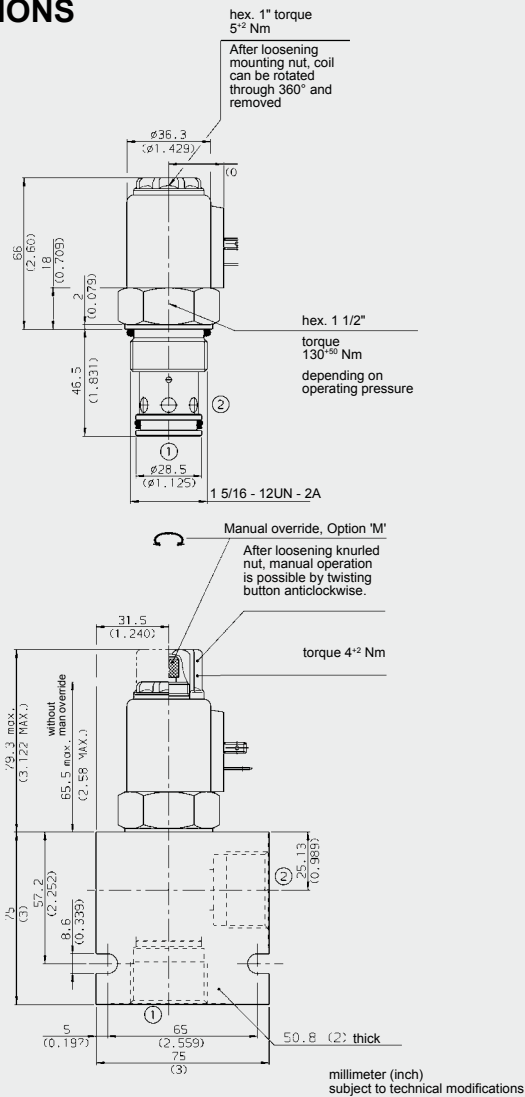
SPECIFICATIONS

Operating pressure:	350 bar
Nominal flow:	max. 150 l/min up to 280 bar max. 100 l/min from 280 to 350 bar
Internal leakage:	Leakage-free (max. 5 drops \approx 0,25 cm ³ /min at 350 bar)
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:	7.4 to 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)
Installation:	No orientation restrictions
Material:	Valve body: steel Poppet: hardened and ground steel Seals: NBR (standard) FKM (optional, media temperature range -20 °C to 120 °C) Coil: Steel/Polyamide
Cavity:	FC16-2
Weight:	Valve complete: 0.62 kg Coil only: 0.19 kg

Electrical data

Response time:	Energized: approx. 50 ms De-energized: approx. 35 ms
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:	\pm 15 % of nominal voltage
Coil duty rating:	Continuous up to max. 115% of nominal voltage at max. 60° C ambient temperature
Coil type:	Coil...-40-1836

DIMENSIONS



MODEL CODE

WS16Z - 01 M - C - N - 24 DG

Basic model _____
Directional poppet valve, UNF

Type _____
01 = standard

Manual override _____
No details = without manual override
M = manual override

Body and Ports* _____
C = Cartridge only
SB8 = G1 ports, steel body
AB8 = G1 ports, aluminium body

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 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.
WS16Z-01-C-N-12DG	3049464
WS16Z-01-C-N-24DG	3049480
WS16Z-01-C-N-230AG	3049517

Other models on request

*Standard in-line bodies

Code	Part No.	Material	Ports	Pressure
FH162-SB8	3032496	Steel, zinc-plated	G1	420 bar
FH162-AB8	3037193	Aluminium, anodized	G1	250 bar

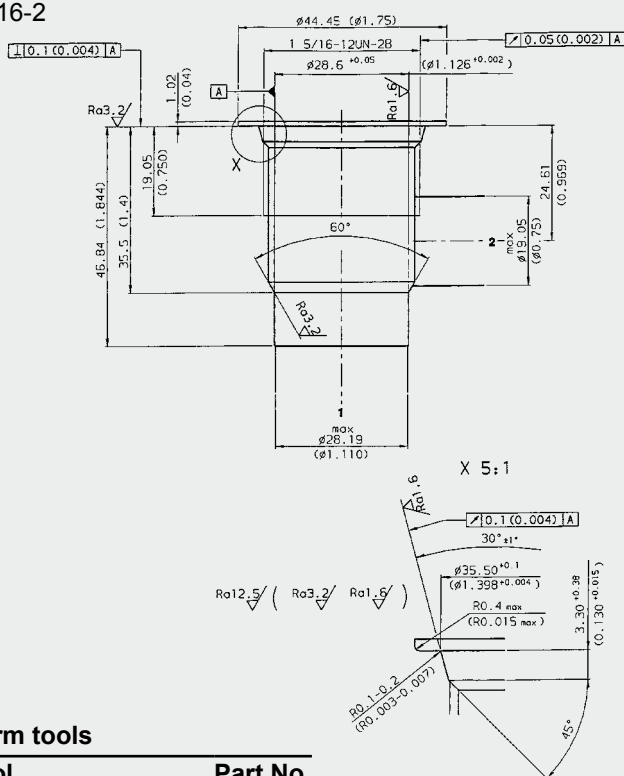
Other models on request

Seal kits

Code	Material	Part No.
FH162-N	NBR	3052427
FS162-V	FKM	3051758

CAVITY

FC16-2



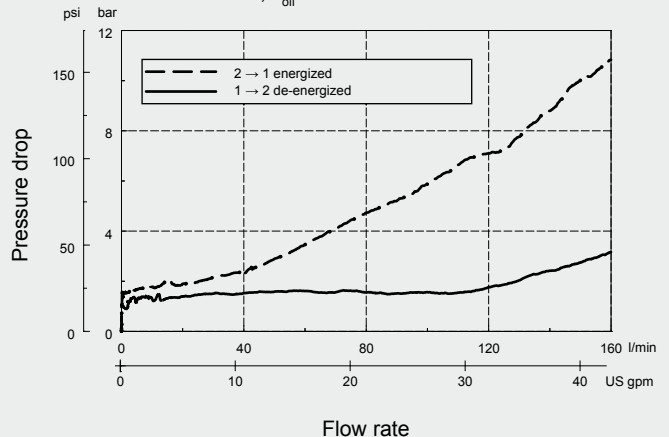
Form tools

Tool	Part No.
Countersink FC16-2	176218
Reamer FC16-2	176219

millimeter (inch)
subject to technical modifications

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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