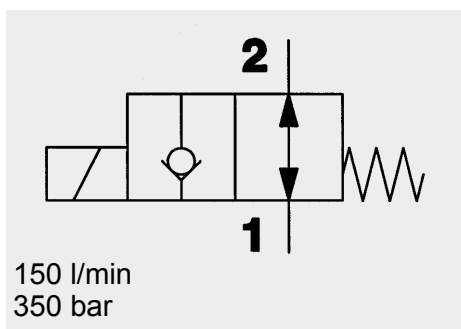


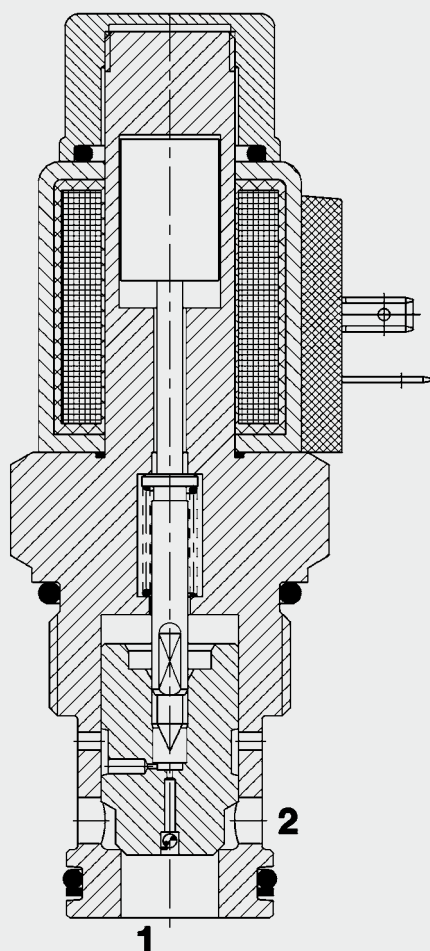
2/2 Solenoid Directional Valve **UNF** **Poppet Type, Pilot-Operated** **Normally Open (Reverse Flow)** **SAE-16 Cartridge – 350 bar**

WS16YR-01



150 l/min
350 bar

FUNCTION



When the solenoid coil is de-energized, the valve is open in both directions.
 When the solenoid coil is energized, the valve is closed from port 2 to port 1. In the reverse direction the valve will allow flow from port 1 to 2 when the hydraulic force on the piston overcomes the solenoid force (approx. 1 to 3 bar).

FEATURES

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

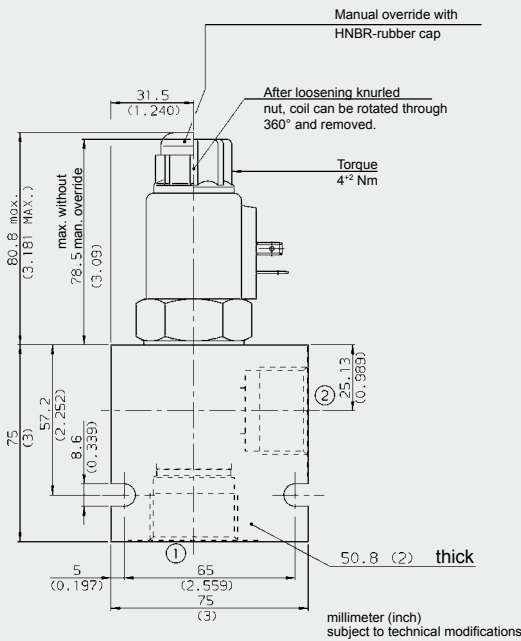
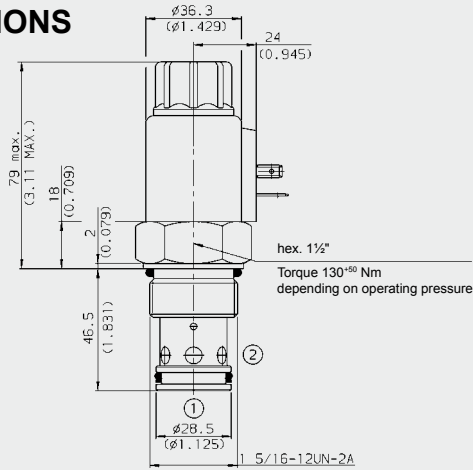
SPECIFICATIONS

Operating pressure:	max. 350 bar	
Nominal flow:	max. 150 l/min, up to 280 bar max. 100 l/min, from 280 to 350 bar	
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:	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 years (see "Conditions and instructions for valves" in brochure 5.300)	
Installation:	No orientation restrictions	
Materials:	Valve body:	free-cutting steel
	Poppet:	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:	FC16-2	
Weight:	Valve complete	0.65 kg
	Coil only	0.19 kg

Electrical data:

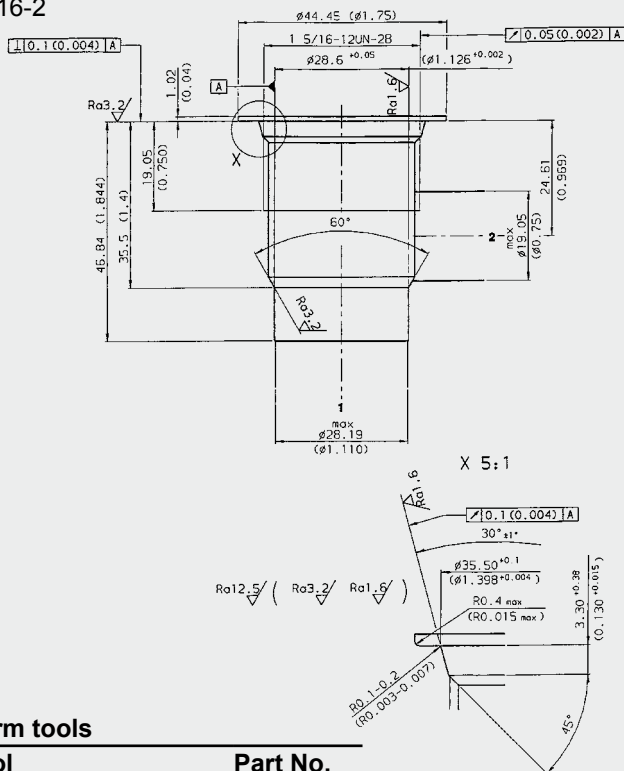
Coil duty rating:	Continuous up to max. 115% of the nominal voltage at 60 °C ambient temperature	
Current draw at 20 °C:	1.5 A at 12 V DC 0.8 A at 24 V DC	
Voltage tolerance:	\pm 15% of the nominal voltage	
Response time:	Energized:	approx. 150 ms
	De-energized:	approx. 35 ms
Coil type:	Coil...-40-1836	

DIMENSIONS



CAVITY

FC16-2



Form tools

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

millimeter (inch) subject to technical modifications

MODEL CODE

WS16YR-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.
WS16YR-01-C-N-24DG	3049625
WS16YR-01-C-N-230AG	3049650

*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	210 bar

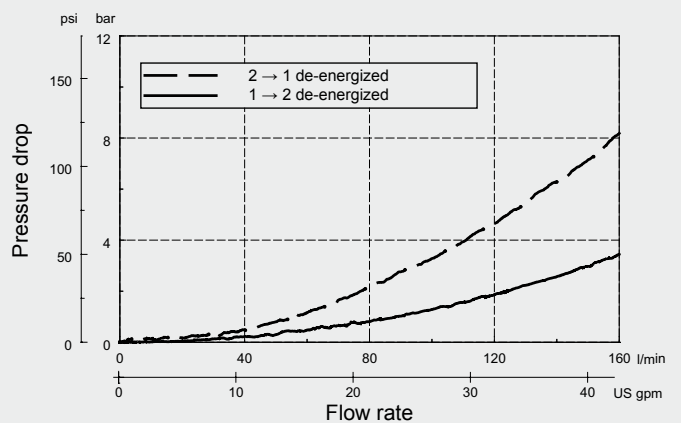
Other housings on request

Seal kits

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

PERFORMANCE

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



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.

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