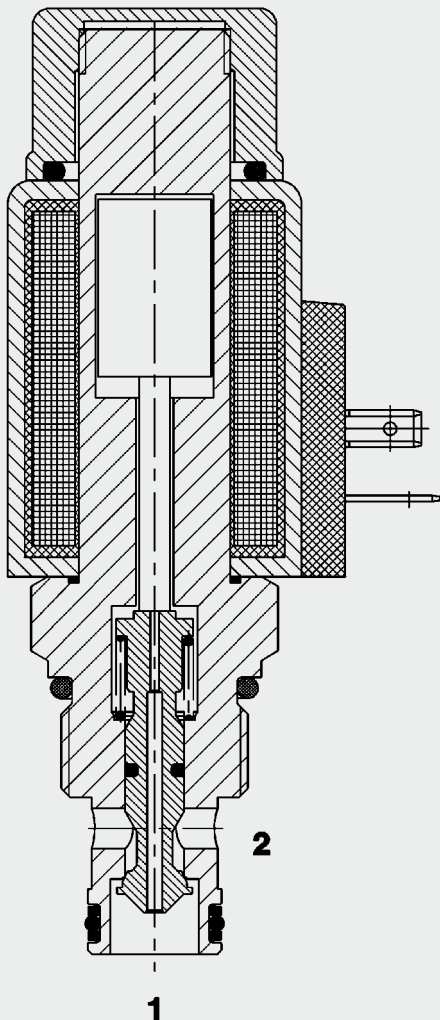


## FUNCTION



In the de-energized mode the valve blocks flow in both directions.  
When energized the valve allows flow in both directions.

## 2/2 Solenoid Directional Valve **UNF** Poppet Type, Direct-Acting Normally Closed **SAE-10 Cartridge – 350 bar** WS10W

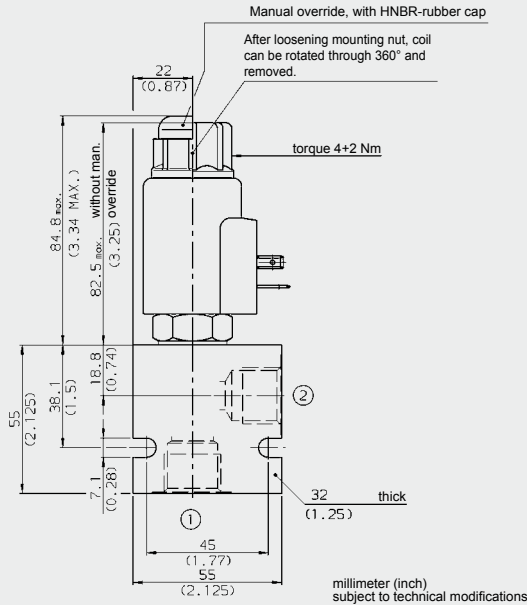
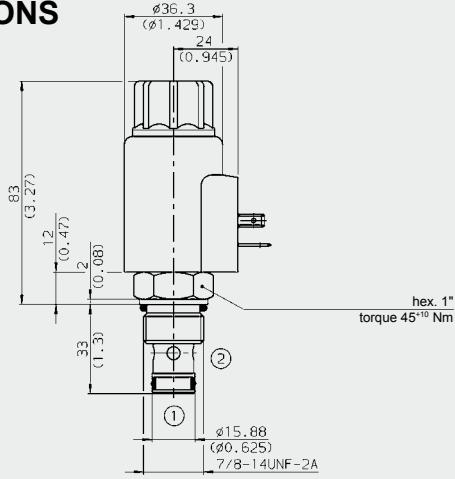
### FEATURES

- 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 connections available
- Excellent switching performance by high power HYDAC solenoid

### SPECIFICATIONS

Operating pressure:	350 bar
Nominal flow:	40 l/min
Internal leakage:	Leakage-free (max. 5 drops = 0,25 cm <sup>3</sup> /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 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
Material:	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:	FC10-2
Weight:	Valve complete: 0.46 kg Coil only: 0.23 kg
<b>Electrical data:</b>	
Response time:	Energized: approx. 50 ms De-energized: approx. 50 ms
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 nominal voltage
Coil duty rating:	Continuous up to max. 115% of nominal voltage at max. 60° C ambient temperature
Coil type:	Coil...-50-1836

## DIMENSIONS



## MODEL CODE

**WS10W - 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  
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  
24 = 24 V DC  
AC voltages (bridge rectifier built into the coil)  
115 = 115 V AC  
230 = 230 V AC

**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.
WS10W-01-C-N-12DG	3105542
WS10W-01-C-N-24DG	3105385
WS10W-01-C-N-230AG	3105386

Other models on request

## \*Standard in-line bodies

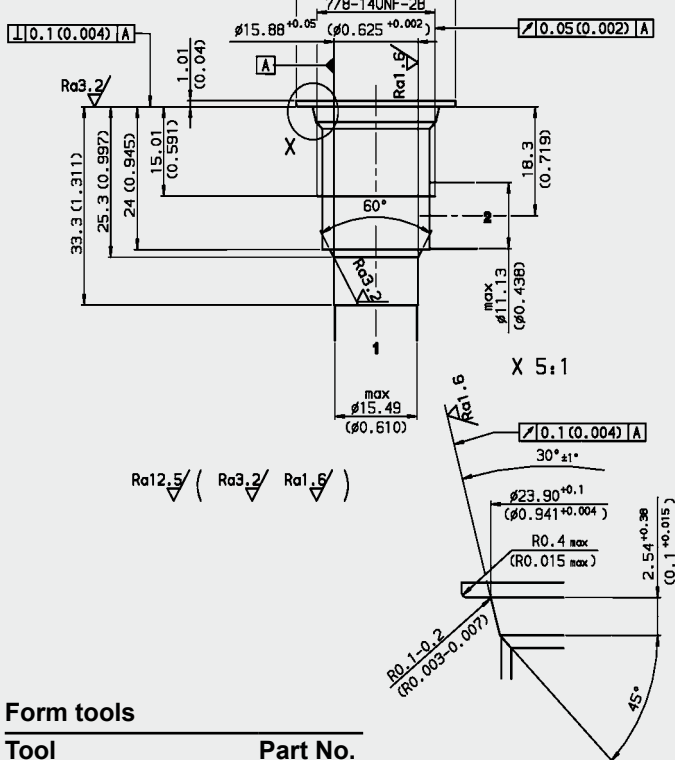
Code	Part No.	Material	Ports	Pressure
FH102-SB4	3037594	Steel, zinc-plated	G1/2	420 bar
FH102-AB4	3037777	Aluminium, clear anodized	G1/2	210 bar

## Seal kits

Code	Part No.	Material
Seal kit FS102-N	3033872	NBR
Seal kit FS102-N	3051757	FKM

## CAVITY

FC10-2



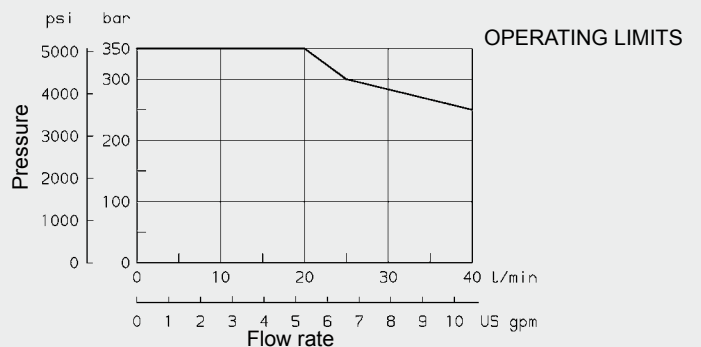
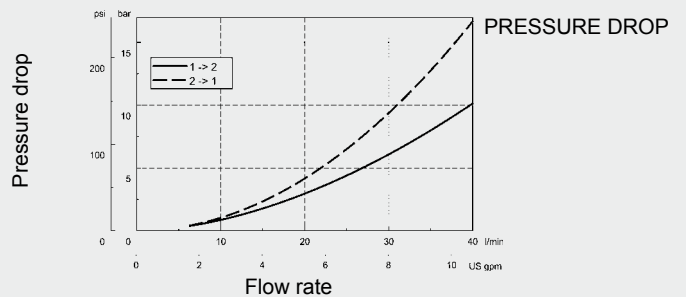
## Form tools

Tool	Part No.
Countersink FC10-2	176379
Reamer FC10-2	165706

millimeter (inch)  
subject to technical modifications

## 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.

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