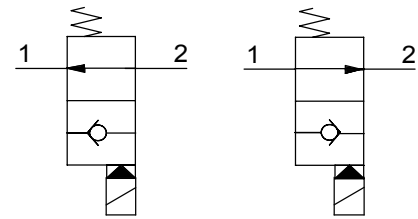


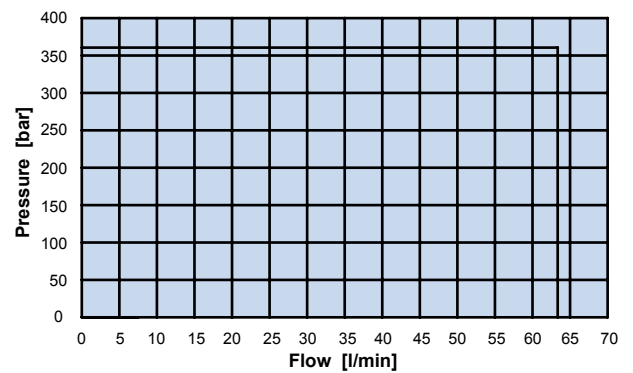
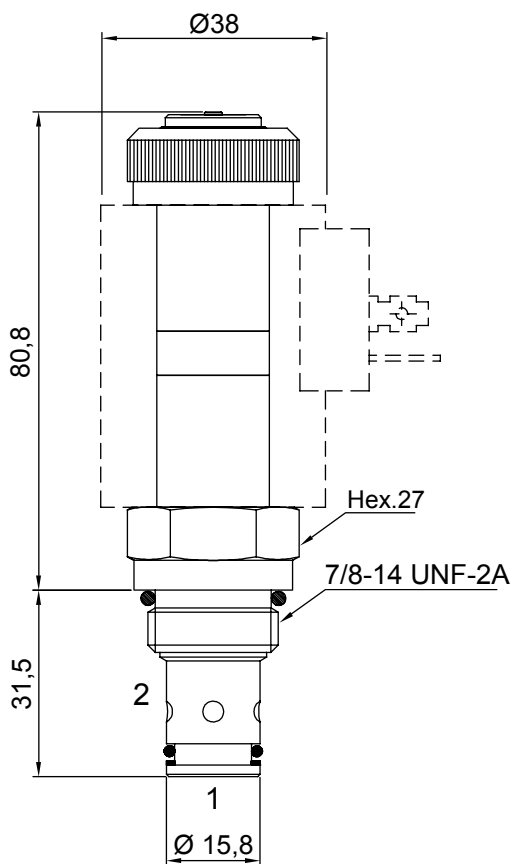
**2 WAYS 2 POSITIONS ELECTRIC VALVE, PILOT POPPET OPERATED NO**

- Flow ..... **60 l/min**
- Max working pressure ..... **350 bar**
- Leakage ..... **0,25 cc/min**
- Seals ..... **NBR**
- Cavity ..... **C230000**
- Cartridge tightening torque. .... **40 Nm**
- Ring nut tightening torque. .... **5 Nm**
- Weight (with coil). .... **0,56 Kg**
- Coil **CT-9801** to be ordered separately

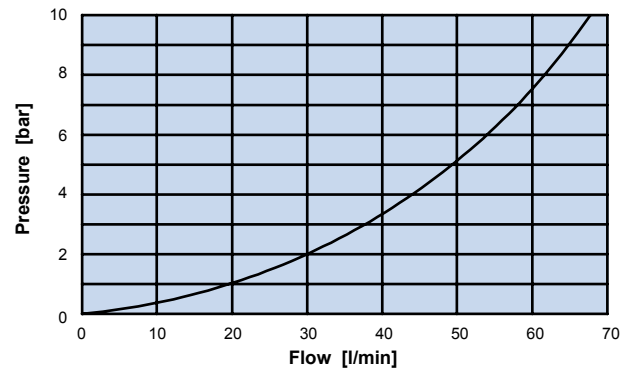


**Scheme 0**

**Scheme 1**



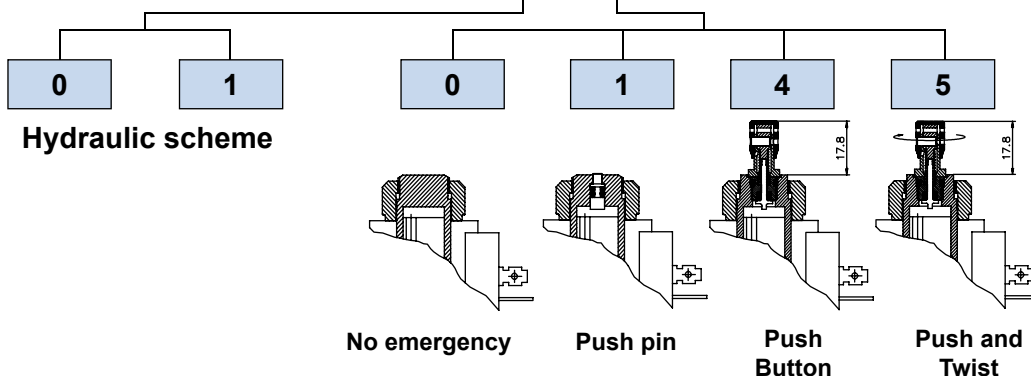
**Application limits from 2 to 1 and 1 to 2**



**Pressure drop from 2 to 1 and from 1 to 2**

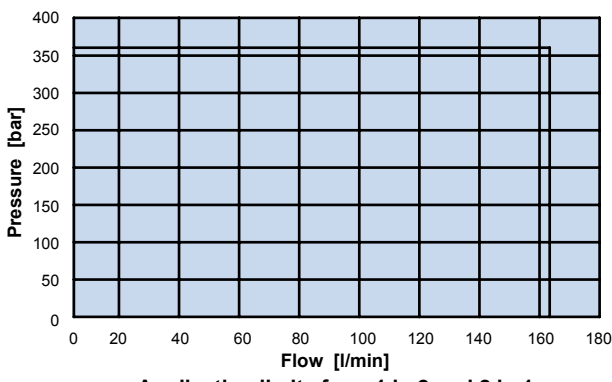
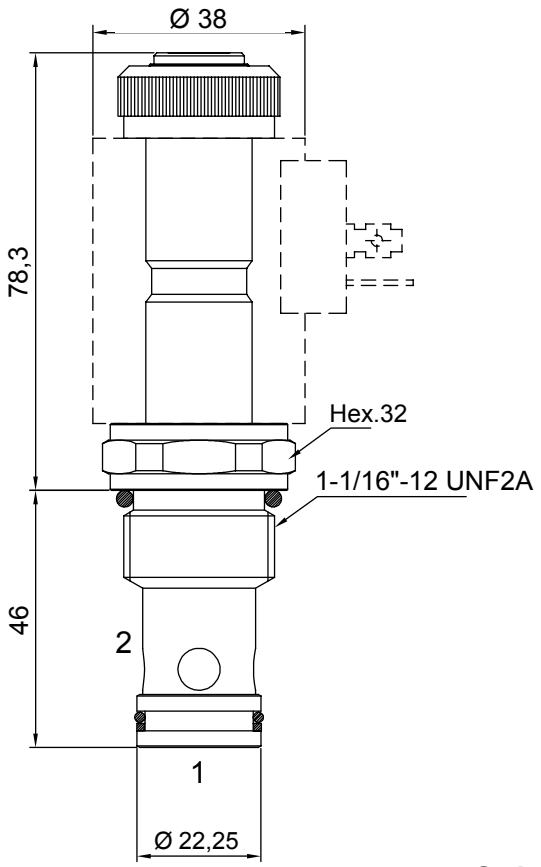
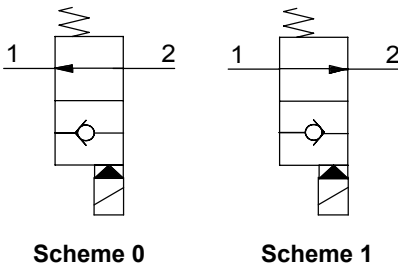
**Ordering code**

**0 5 5 3 0 [ ] 0 [ ] 0 0**



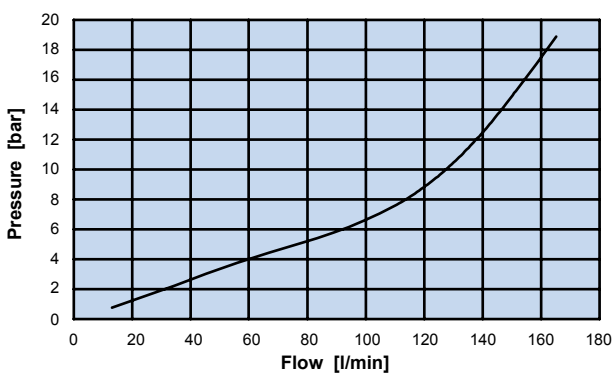
**2 WAYS 2 POSITIONS ELECTRIC VALVE, PILOT POPPET OPERATED NO**

- Flow ..... 150 l/min
- Max working pressure ..... 350 bar
- Leakage ..... 0,25 cc/min
- Seals ..... NBR
- Cavity ..... C240000
- Cartridge tightening torque ..... 50 Nm
- Ring nut tightening torque ..... 5 Nm
- Weight (with coil) ..... 0,56 Kg
- Coil **CT-9801** to be ordered separately



Application limits from 1 in 2 and 2 in 1

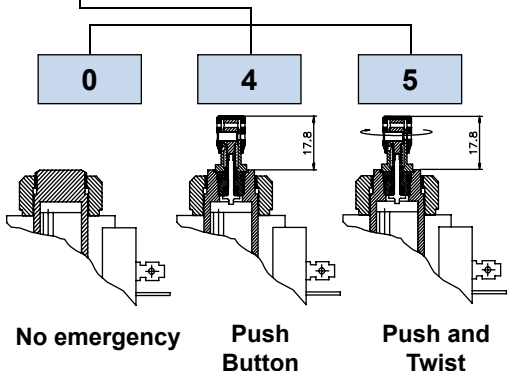
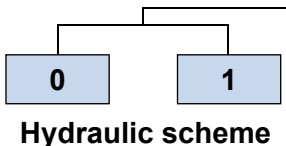
83



Pressure drop with energized coil

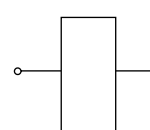
**Ordering code**

**0 5 5 4 0**   **0**   **0 0**

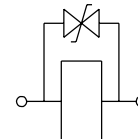


- Wire insulation class.....H (>185°C)
- ED.....100%
- Coil power at 20° C.....24 W
- Ambient temperature.....-20 +40° C
- Weight.....0,28 Kg

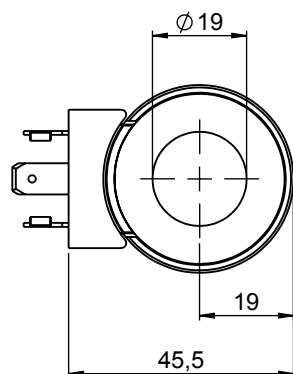
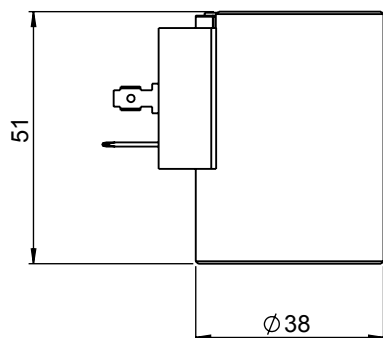
### ELECTRIC CIRCUITS



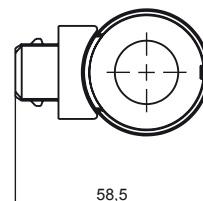
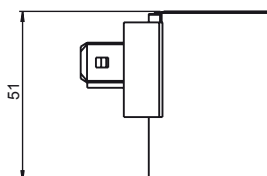
STANDARD



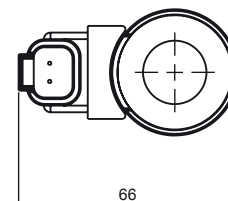
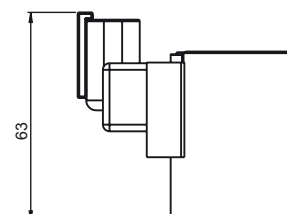
WITH DIODE  
(BI-DIRECTIONAL)



### AMP - JUNIOR



### DEUTSCH DT4

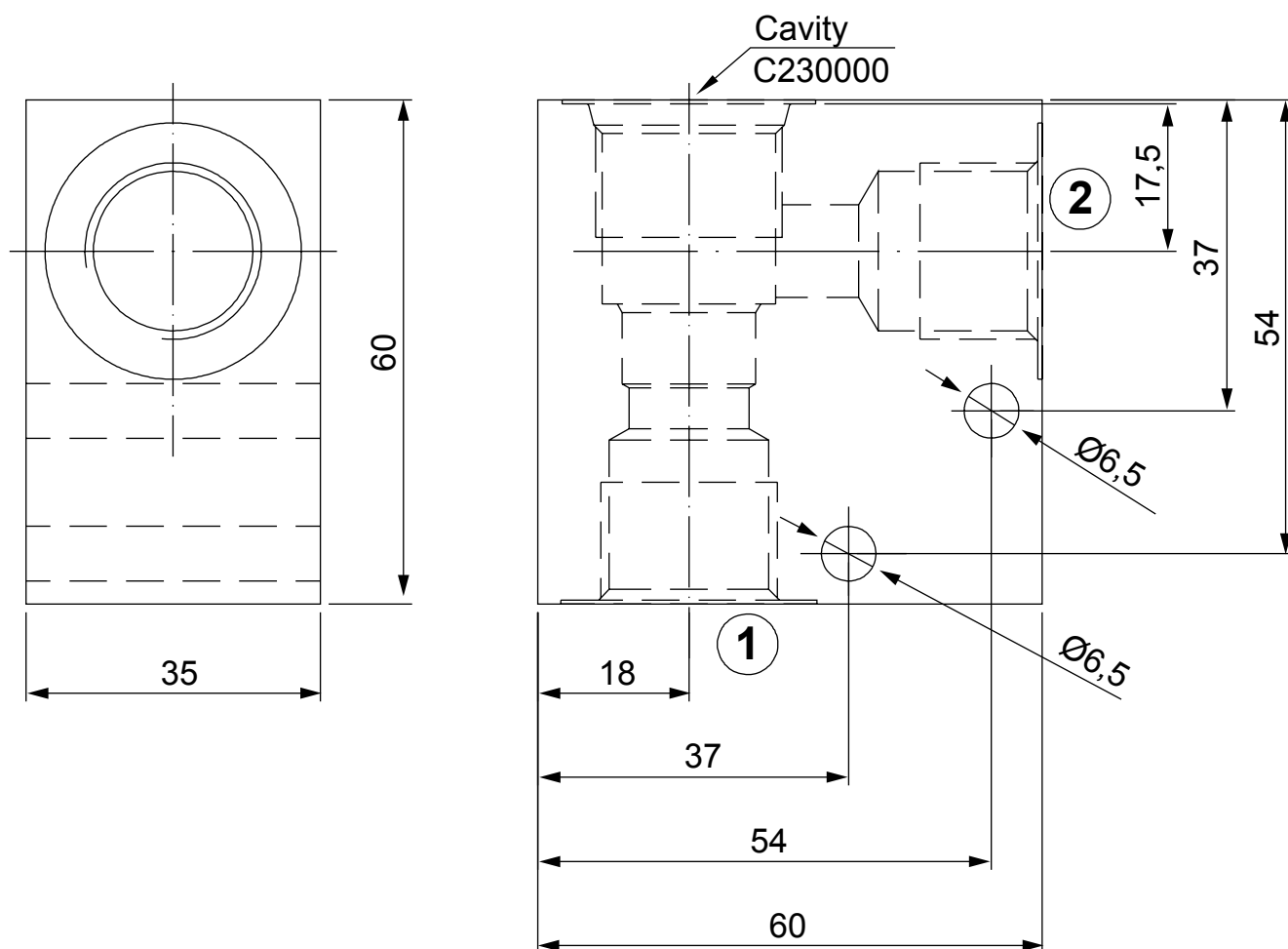


CONNECTOR	PROTECTION CLASS	COIL THERMAL INSULATION CLASS	VOLTAGE [V]	RESISTANCE [Ω]	CIRCUIT	ORDERING CODE
DIN 43650	IP65*	H	12 V dc	6,8	STANDARD	<b>098011190</b>
DIN 43650	IP65*	H	24 V dc	24	STANDARD	<b>098012190</b>
DIN 43650	IP65*	H	26 V dc	27,1	STANDARD	<b>098012191</b>
DIN 43650	IP65*	H	220 V Rac**	1470	STANDARD	<b>098016190</b>
DEUTSCH DT 4	IP67	F	12 V dc	6,8	WITH DIODE	<b>098111190</b>
DEUTSCH DT 4	IP67	F	24 V dc	24	WITH DIODE	<b>098112190</b>
AMP - JUNIOR	IP65*	F	12 V dc	6,8	WITH DIODE	<b>098211190</b>
AMP - JUNIOR	IP65*	F	24 V dc	24	WITH DIODE	<b>098212190</b>

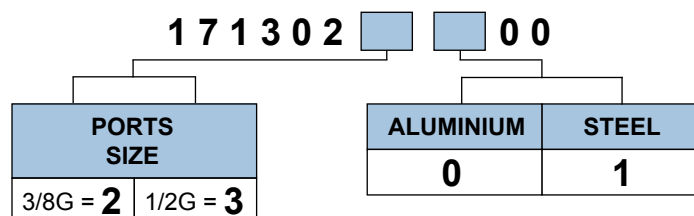
\* Protection index with standard connector

\*\* Rectifier not included - Power 25W

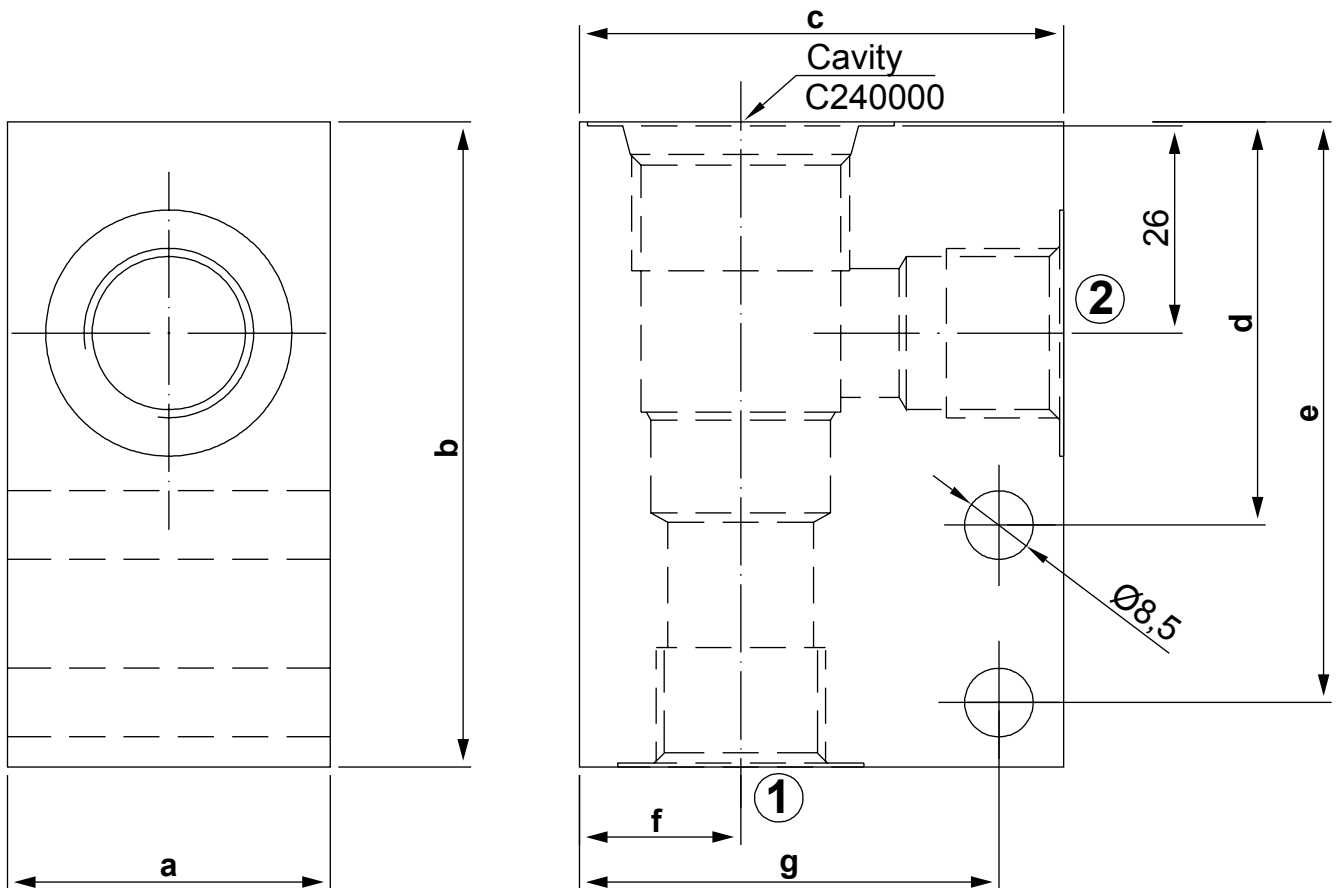
STANDARD BODY FOR LINE MOUNTING



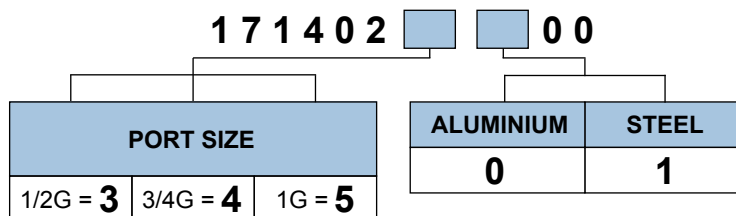
Ordering code



STANDARD BODY FOR LINE MOUNTING



Ordering code



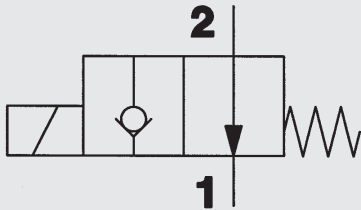
	a	b	c	d	e	f	g
1/2G = <b>3</b>	40	80	60	50	72	20	52
3/4G = <b>4</b>	40	80	60	50	72	20	52
1G = <b>5</b>	50	85	70	55	77	25	62

# Solenoid Directional Valve SAE 8-Cartridge - 350 bar

**UNF**

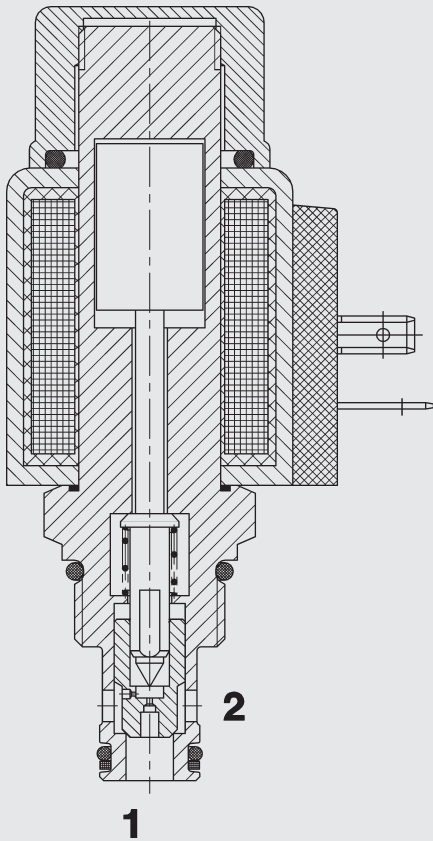
2/2-Normally Open  
WS08Y-01

Poppet Type - Pilot Operated



38 l/min  
350 bar

## FUNCTION



In the de-energized mode, the valve allows flow from port 2 to 1. Flow from 1 to 2 is severely restricted in this mode.

When energized, the valve blocks flow from port 2 to 1. In this mode the valve will allow flow from 1 to 2 once the hydraulic force exceeds the solenoid force of 9 to 20 bar.

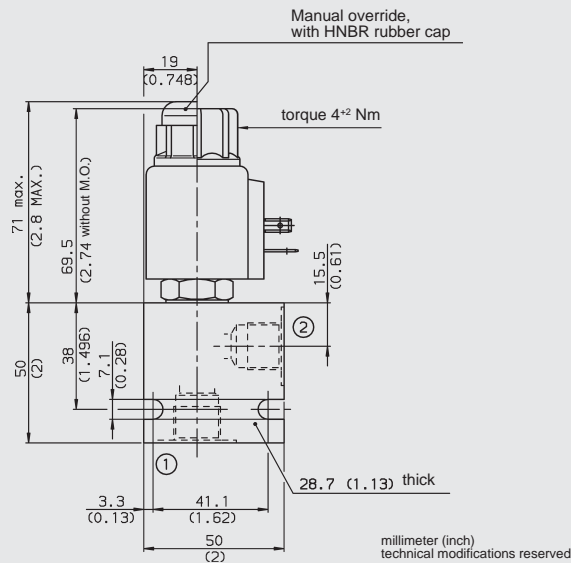
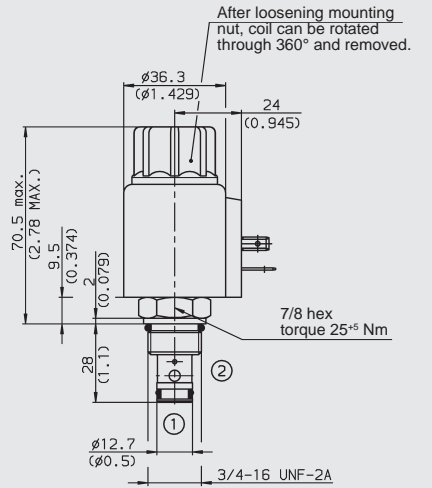
## FEATURES

- All surfaces zinc-plated and corrosion-proof
- All valve parts made of high-strength steel with hardened and ground components to ensure minimal wear and extended service life
- Coil seals protect the solenoid system
- Wide variety of connectors available
- Rigid design using one-piece body minimizes the effect of eccentricities in cavity and maximizes reliability
- Excellent switching performance by high power solenoid
- Low pressure drop due to CFD optimized flow-path

## SPECIFICATIONS

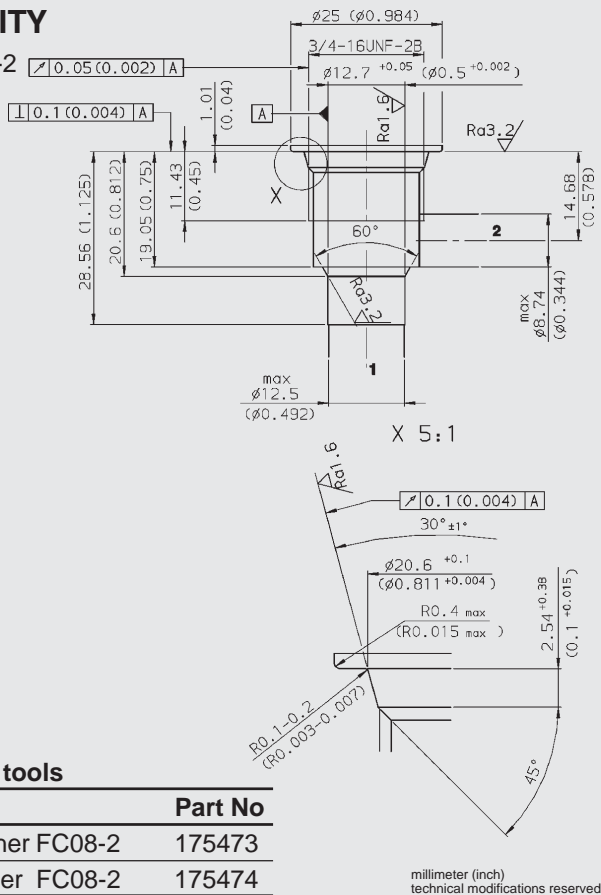
Operating pressure:	350 bar
Proof pressure:	520 bar
Nominal flow:	38 l/min
Internal leakage:	leakage-free (less than 5 drops/min) max. at 350 bar
Media operating temp. range:	- 20 °C to + 120 °C
Ambient temp. range:	- 20 °C to + 60 °C
Fluids:	Hydraulic oil to DIN 51524 Part 1 and 2
Viscosity:	7.4 to 420 mm <sup>2</sup> /s
Filtration:	Class 21/19/16 according to ISO 4406 or cleaner
Installation:	No orientation restrictions
Material:	Valve body: high tensile steel Piston: hardened and ground steel Seals: NBR (Standard) FKM (Option) Coil: Steel/Polyamide
Cavity:	FC08-2
Weights:	Valve complete: 0.33 kg Coil only: 0.19 kg
Response time:	Energized: 50 ms De-energized: 35 ms typical 24 V DC-coil
Type of voltage	DC solenoid, AC voltage is rectified by 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:	± 15 % of nominal voltage
Switch-on time:	Continuous up to 115 % of nominal voltage at 60 °C ambient temperature

## DIMENSIONS



## CAVITY

FC08-2



### Form tools

Tool	Part No
Rougher FC08-2	175473
Finisher FC08-2	175474

## MODEL CODE

WS08Y-01 M - C - N - 24 DG

**Designation**  
 Directional spool valve UNF  
 Cavity 08  
 Function code Y  
 Type 01 = standard

**Option**  
 Omission = No Option  
 M = Manual Override

**Body and Ports\***  
 C = Cartridge Only  
 SB3 = 3/8 BSP ports, steel body  
 AB3 = 3/8 BSP ports, aluminium body

**Seals**  
 N = NBR  
 V = FKM

**Coil Voltage**  
 DC

12 = 12 V DC  
 24 = 24 V DC  
 AC (internally full wave rectified)  
 115 = 115 V AC  
 230 = 230 V AC

**Coil Connector**  
 DC: DG = DIN Connector to EN 175301-803  
 DK = Kostal threaded connection M27x1  
 DL = Leadwires (2) - 457mm, (18") long  
 DN = Deutsch connector, 2 pole  
 DT = AMP Junior Timer, 2-pole, radial

AC: AG = DIN Connector to EN 175301-803

## Standard models

Model code	Part no.
WS08Y-01-C-N-24DG	563048
WS08Y-01-C-N-230AG	3043372

other models on request

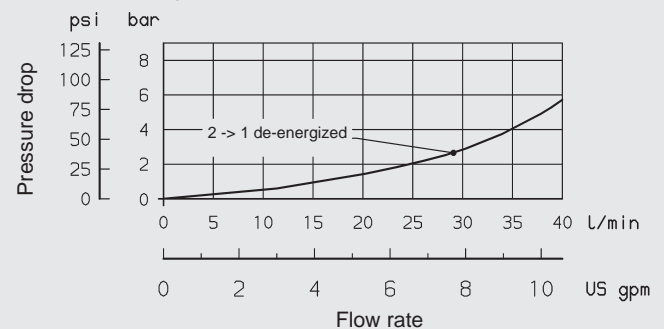
## Inline connection housings

Code	Part No	Material	Ports	Pressure
FH082-SB3	560919	Steel, zinc-plated	3/8 BSP	420 bar
FH082-AB3	3011423	Aluminium, clear anodized	3/8 BSP	245 bar

other housings on request

## PERFORMANCE (Cartridge Only)

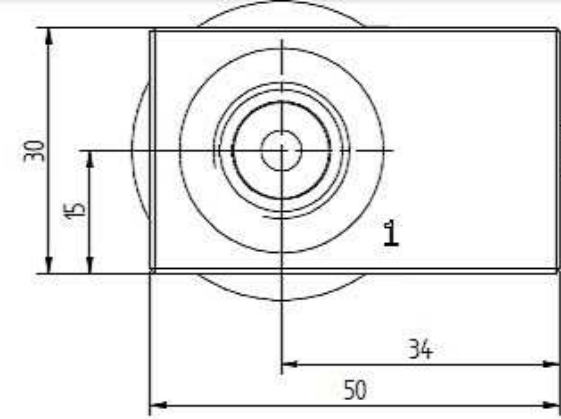
Measured at 34 mm<sup>2</sup>/s  
 T<sub>oil</sub> = 46 °C



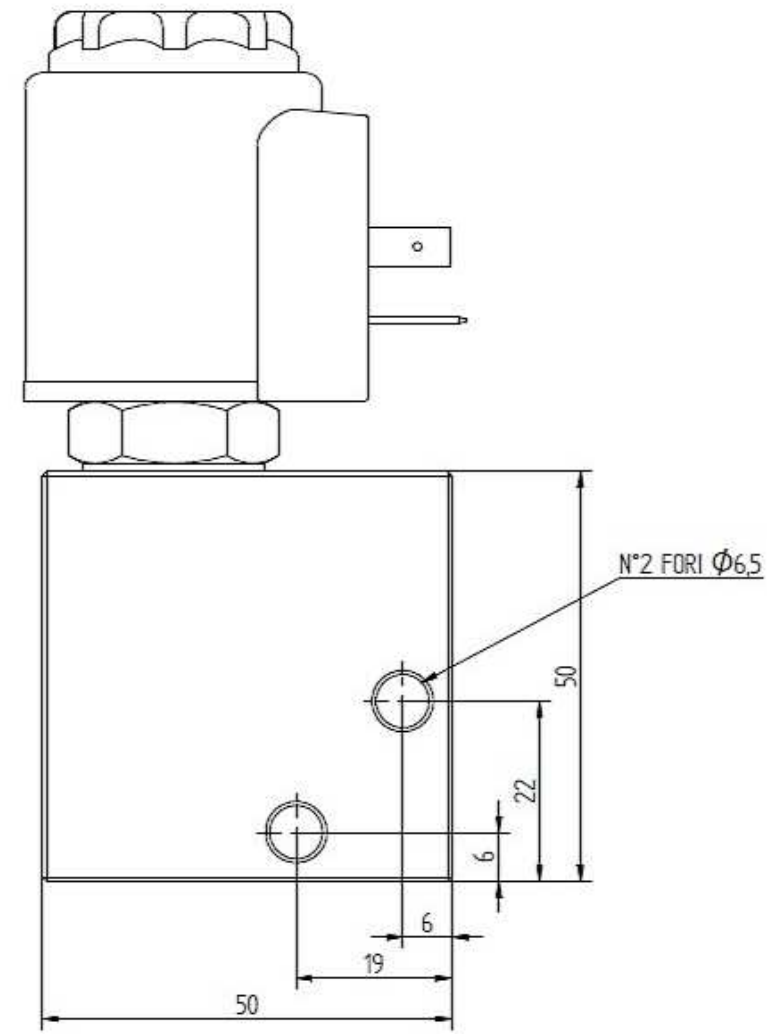
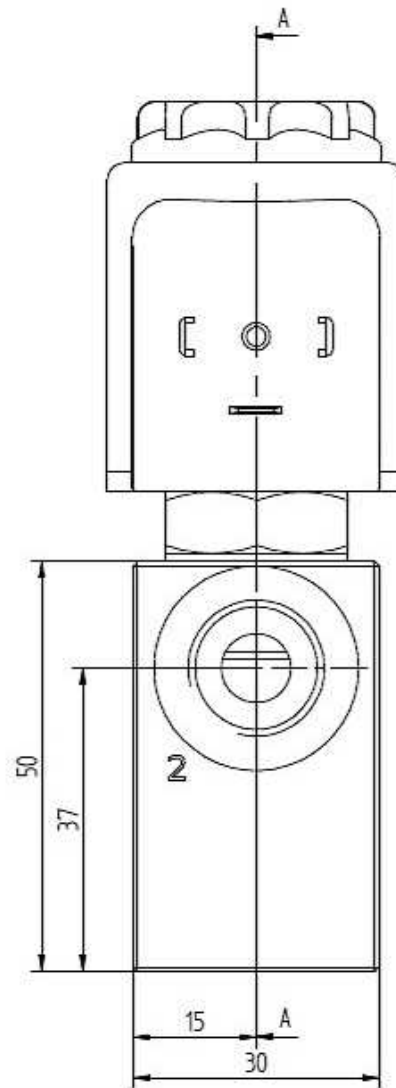
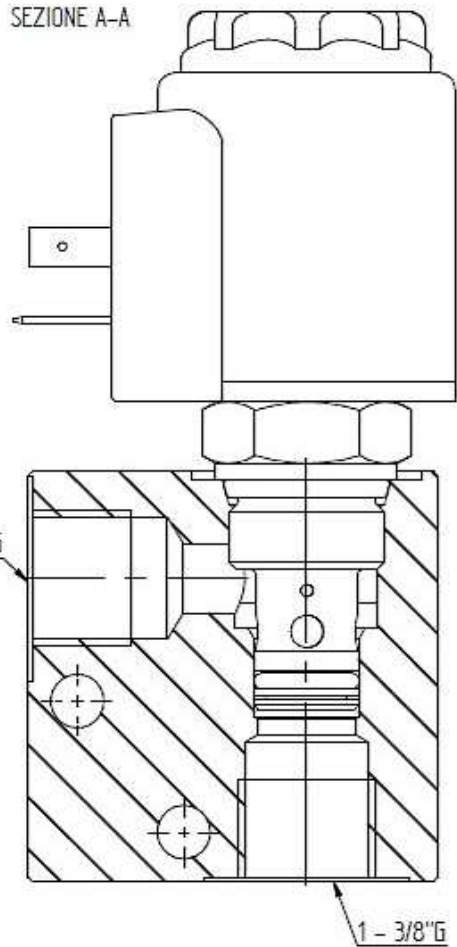
## NOTE

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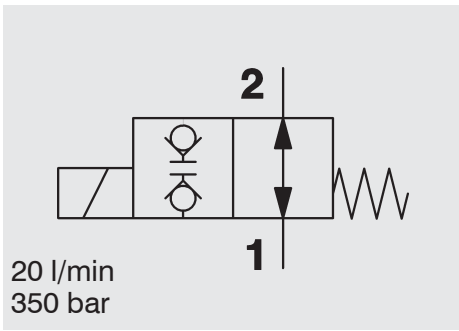


SEZIONE A-A

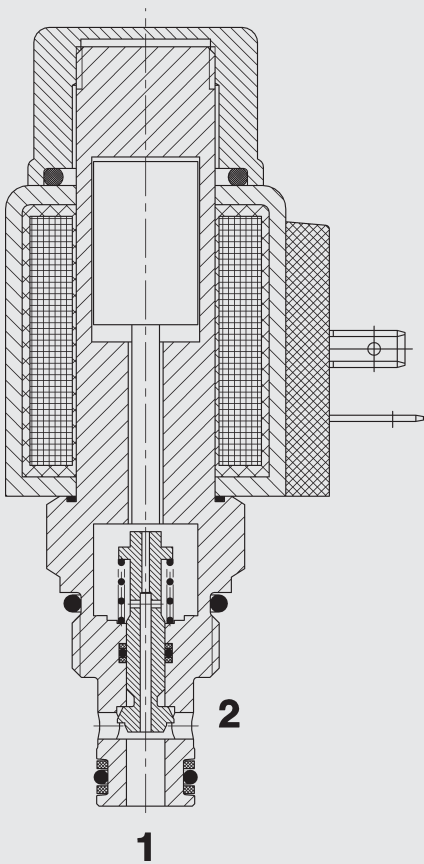








## FUNCTION



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

When energized, the valve blocks flow in both directions.

# Solenoid Directional Valve SAE 8-Cartridge – 350 bar

2/2 Normally Open (double blocking)

WS08V-01

Poppet Type - Direct Operated

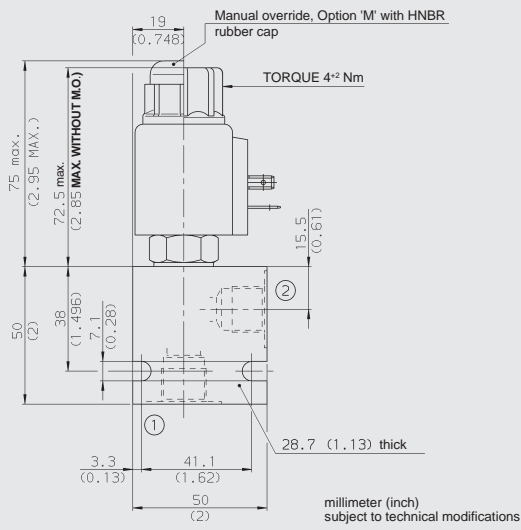
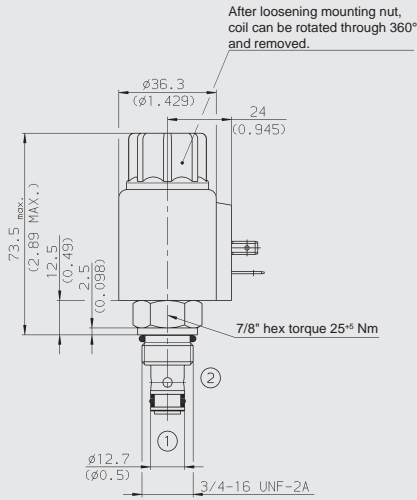
## FEATURES

- Excellent switching performance by high power solenoid
- All valve parts made of high-strength steel with hardened and ground components to ensure minimal wear and to extend service life
- Rigid design using one-piece body minimizes the effect of eccentricity and maximizes reliability
- All surfaces zinc-plated and corrosion-proof
- Waterproof design standard
- Wide variety of connectors available
- Low pressure drop by CFD optimized flow-path

## SPECIFICATIONS

Operating pressure:	350 bar
Proof pressure:	520 bar
Nominal flow:	20 l/min
Internal leakage:	leakfree (less than 5 drops/min) at 350 bar
Media operating temp. range:	-20 °C to +120 °C
Ambient temp. range:	-20 °C to +60 °C
Coil duty rating:	Continuous from 85% to 115% of nominal voltage
Current draw at 20 °C:	1.5 A at 12 V DC 0.8 A at 24 V DC
Minimum pull-in voltage:	85 % of nominal
Response time:	Energized: 35 ms De-energized: 50 ms typical 24 V DC-coil
Fluids:	Mineral-based or synthetics with lubricating properties
Viscosity:	7.4 to 420 cSt
Filtration:	Class 21/19/16 according to ISO 4406 or cleaner
Installation:	No orientation restrictions
Material:	Valve body: carbon steel Piston: hardened and polished steel Seals: NBR (standard) FKM (optional) Coil: Steel/Polyamide
Cavity:	FC08-2
Weights:	Valve complete: 330 g Coil only: 190 g

# DIMENSIONS



# MODEL CODE

**WS08V-01 M - C - N - 24 DG**

## Basic Model

Option  
 Omission = No Option  
 M = Manual Override

## Body and Ports\*

C = Cartridge only  
 SB3 = 3/8 BSP ports, steel body  
 SS6 = SAE-6 ports, steel body  
 AB3 = 3/8 BSP ports, aluminium body  
 AS6 = SAE-6 ports, aluminium body

## Seals

N = NBR  
 V = FKM

## Coil Voltage

### DC

10 = 10 V DC  
 12 = 12 V DC  
 24 = 24 V DC  
 36 = 36 V DC  
 48 = 48 V DC  
 110 = 110 V DC available with DG termination only

### AC (internally full wave rectified)

24 = 24 V AC  
 115 = 115 V AC  
 230 = 230 V AC

## Coil Connector

DC: DG = DIN Connector (EN 175301-803)  
 DS = Dual Spade SAEJ858a  
 DL = Leadwires (2) - 457mm (18") long  
 DW = Weather Pack Connector on leadwires - 241 mm (9.5") long  
 DK = Kostal connector  
 DT = 2-pole AMP Junior Timer plug

AC: AG = DIN Connector (EN 175301-803)

## Standard models

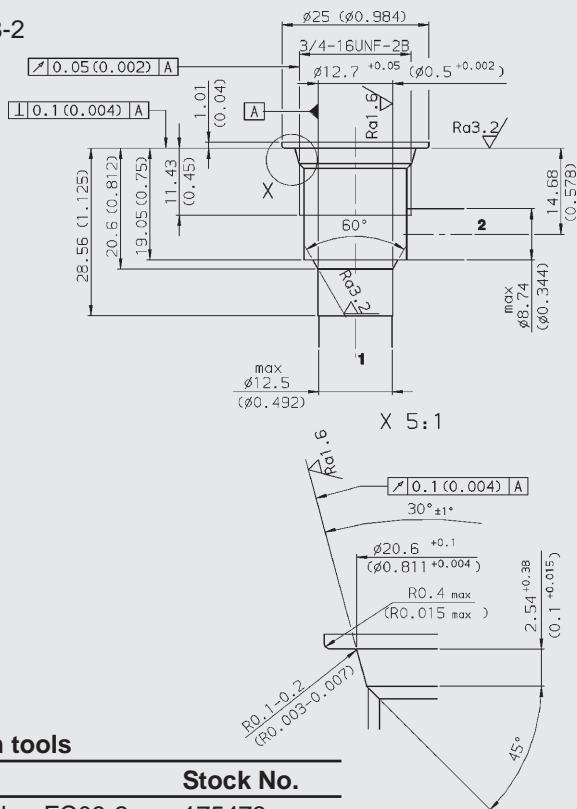
Model code	Stock no.
WS08V-01-C-N-24DG	3138653
WS08V-01-C-N-230AG	3138654

## \* Standard Line Bodies

Code	Stock no.	Material	Ports	Pressure
FH082-SB3	560919	Steel, zinc-plated	3/8 BSP	420 bar
FH082-SS6	560917	Steel, zinc-plated	SAE-6	420 bar
FH082-AB3	3011423	Aluminium, clear anodized	3/8 BSP	245 bar
FH082-AS6	3011409	Aluminium, clear anodized	SAE-6	245 bar

# CAVITY

FC08-2



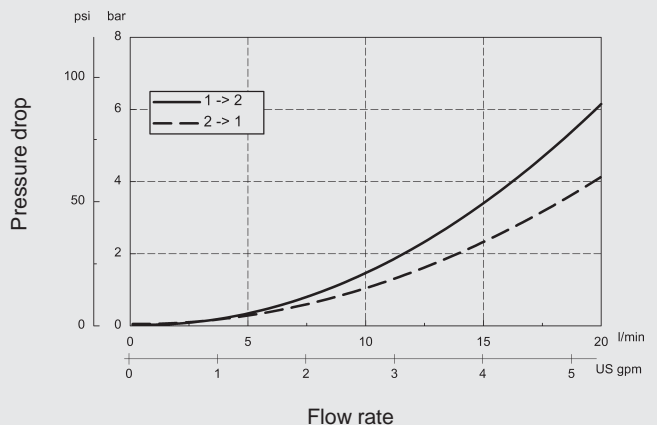
## Form tools

Tool	Stock No.
Rougher FC08-2	175473
Finisher FC08-2	175474

# PERFORMANCE

Measured at 34 cSt  
 $T_{oil} = 46^{\circ}C$

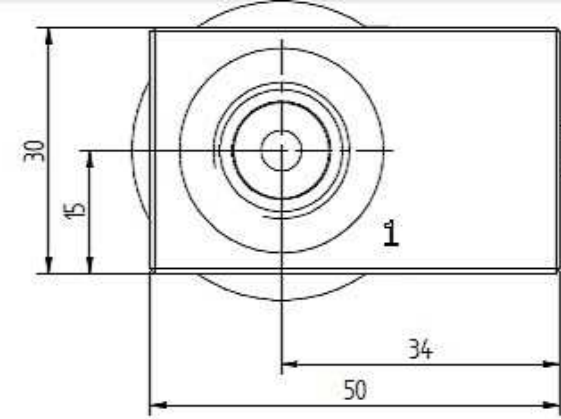
## PRESSURE DROP



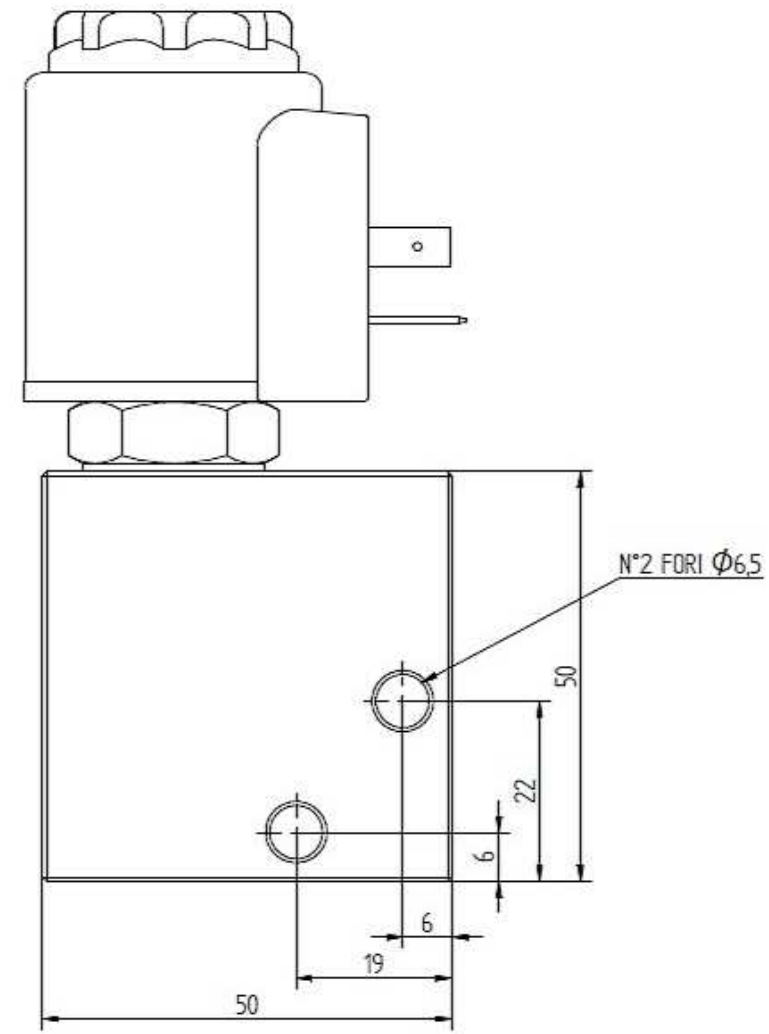
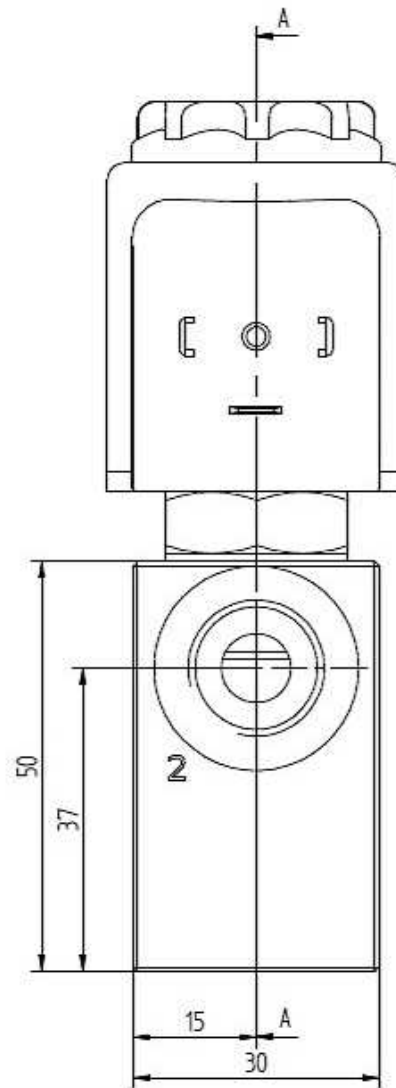
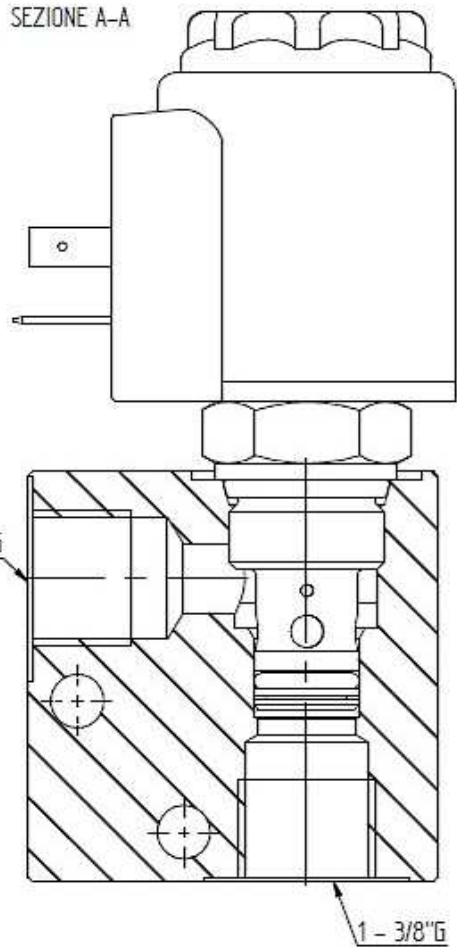
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