

ADP.5.V... WITH PROXIMITY SENSOR L.V.D.T. CETOP 5/NG10



1



ADP.5.V...	
"D19" DC SOLENOIDS	CH. I PAGE 39
STANDARD CONNECTORS	CH. I PAGE 19
L.V.D.T.	CH. I PAGE 21

The ARON NG10 directional control valves are designed for sub-plate mounting with an interface in accordance with UNI ISO 4401 - 05 - 04 - 0 - 94 standard (ex CETOP R 35 H 4.2-4-05).

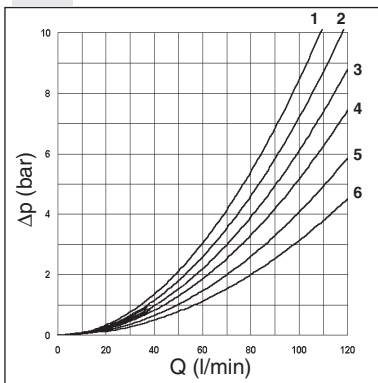
The single solenoid directional valves type ADP5V are used in applications where the monitoring of the position of the spool inside the valve is requested to manage the machine safety cycles in according with the accident prevention legislation. These directional valves are equipped with an horizontal positioned inductive sensor on the opposite side of the solenoid, which is capable of providing the first movement of the valve when the passage of a minimum flow is allowed. Integrated in safety systems, these valves intercept actuator movements that could be dangerous for the operators and for the machine.

- Possible mountings: E / F
- The solenoid is in DC voltage only

Max. operating pressure: ports P/A/B	350 bar
Max. operating pressure: port T (*)	250 bar
Max. flow	120 l/min
Max. excitation frequency	3 Hz
Duty cycle	100% ED
Fluid viscosity	10 ÷ 500 mm ² /s
Fluid temperature	-25°C ÷ 75°C
Ambient temperature	-25°C ÷ 60°C
Max. contamination level	class 10 in accordance with NAS 1638 with filter β ₂₅ ≥ 75
Type of protection (in relation to connector used)	IP 66
Weight	6,2 Kg

(*) Pressure dynamic allowed for 2 millions of cycles

PRESSURE DROPS



The diagram at the side shows the pressure drop curves for spools during normal usage. The fluid used is a mineral oil with a viscosity of 46 mm²/s at 40°C; the tests have been carried out at a fluid temperature of 40°C. For higher flow rates than those in the diagram, the losses will be those expressed by the following formula:

$$\Delta p_1 = \Delta p \times (Q_1/Q)^2$$

where Δp will be the value for the losses for a specific flow rate Q which can be obtained from the diagram, Δp₁ will be the value of the losses for the flow rate Q₁ that is used.

Spool type	Connections				
	P→A	P→B	A→T	B→T	P→T
01	3	3	5	5	
02	4	4	6	6	5
66	3	3	6	5	
06	3	3	5	6	
16	1	1	2	2	

Curve No.

ORDERING CODE

ADP	High performances directional control valve
5	CETOP 5/NG10
V	Directional valve with single solenoid and L.V.D.T. proximity sensor
***	Spool and mounting (table 1)
*	Voltage (table 2)
**	Variants (table 3)
1	Serial No.

TAB.2 - DC VOLTAGE

DC VOLTAGE **	
L 12V	115Vac/50Hz 120Vac/60Hz with rectifier
M 24V	
N 48V*	230Vac/50Hz 240Vac/60Hz with rectifier
P 110V*	
Z 102V*	
X 205V*	
W	Without DC coils and connectors

Voltage codes are not stamped on the plate, their are readable on the coils.

* Special voltage
** Technical data see page I • 40

TAB1 - STANDARD SPOOL

ONE SOLENOID			
Spool type	Diagram	Covering	Transient position
01E		+	
01F		+	
02E		-	
02F		-	
66E		-	
06F		-	
16E		+	
16F		+	
32E		+	

TAB.3 - VARIANTS

VARIANTS	CODE
No variant (without connectors)	S1(*)
Rotary emergency button	P2(*)
Without proximity connector LVDT	S3
Without coils and proximity connector	S4
With solenoid chamber external drainage (Y)	S5(*)

Other variants available on request.

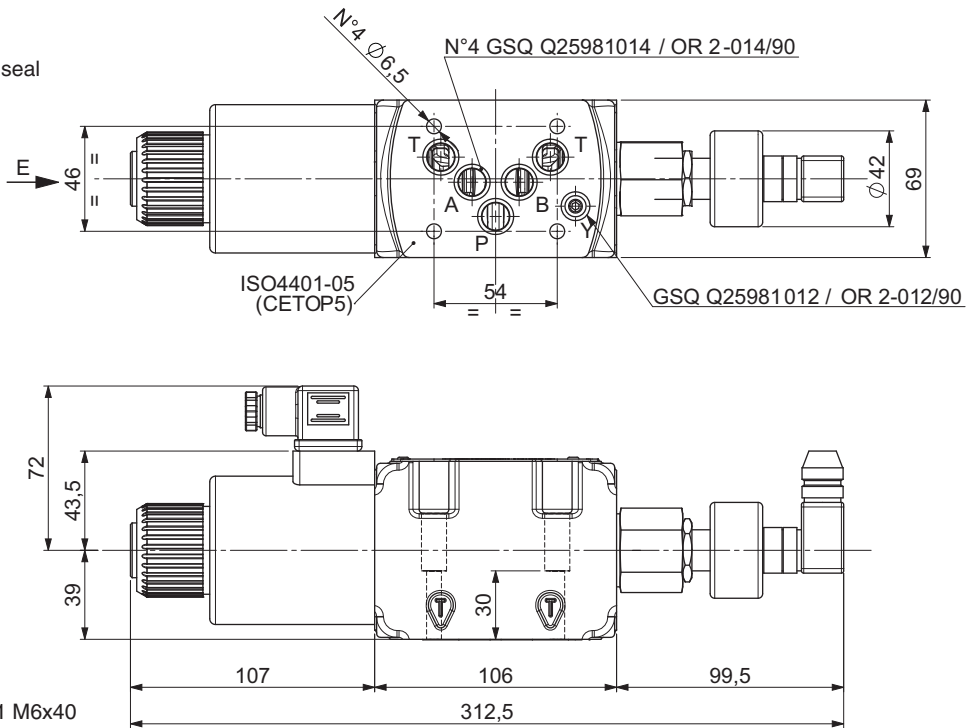
(*) Coils with Hirschmann connection supplied without connectors. The connectors can be ordered separately, ch. I page 19.

CE registered mark for industrial environment with reference to the electromagnetic compatibility.
European norms:
- EN50082-2 general safety norm - industrial environment
- EN 50081-1 emission general norm - residential environment

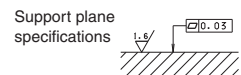
OVERALL DIMENSIONS

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E = Manual override
 GSQ = Square section seal



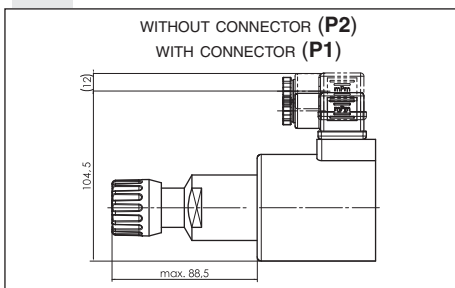
Fixing screws UNI 5931 M6x40
 with material specifications 12.9
 Tightening torque
 8 ÷ 10 Nm / 0.8 ÷ 1 Kgm



“D19” DC SOLENOIDS

Type of protection (in relation to the connector used)	IP 66
Number of cycle	18.000/h
Supply tolerance	±10%
Ambient temperature	-54°C ÷ 60°C
Duty cycle	100% ED
Max static pressure	210 bar
Insulation class wire	H
Weight	1,63 Kg

ROTARY EMERGENCY



VOLTAGE (V)	MAX WINDING TEMPERATURE (AMBIENT TEMPERATURE 25°C)	RATED POWER (W)	RESISTANCE AT 20°C (OHM) ±10%
12V	105°C	42	3.43
24V	105°C	42	13.71
48V*	105°C	42	55
102V(*)(**)	105°C	42	248
110V(*)(**)	105°C	42	288
205V(*)(**)	105°C	42	1000

** The european low voltage directive is applied to electrical equipments used at a nominal voltages between 50 and 1000 VAC or 75 and 1500 VDC. In conformity with the low directive each part of the manifold or the subplate on which the valve is mounted should be connected to a protective earth with a resistance less than 0.1 ohms.

* Special voltage