

AD.3.V... CETOP 3/NG6 WITH PROXIMITY SENSOR L.V.D.T.



AD.3.V...	
"D15" DC COILS	CH. I PAGE 19
STANDARD CONNECTORS	CH. I PAGE 20
L.V.D.T.	CH. I PAGE 22

The single solenoid directional valves type AD.3.V 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 accordance 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.

Max. operating pressure ports P/A/B	350 bar
Max. operating pressure port T dynamic (see note*)	250 bar
Max. flow	60 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
Type of protection (in relation to connector used)	IP 66
Weight	1,7 Kg

(*) Pressure dynamic allowed for 2 millions of cycles.

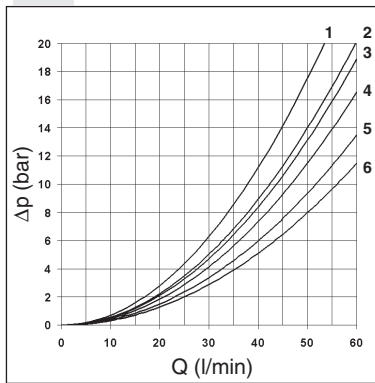
- Possible mountings: E / F / H
- The valve is supplied with DC solenoid only

ORDERING CODE

AD	Directional control valve
3	CETOP 3/NG6
V	Directional valve with single solenoid and L.V.D.T. proximity sensor
***	Spool and mounting (table 1)
*	Voltage (table 2)
**	Variants (table 3)
2	Serial No.

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

PRESSURE DROPS



Spool type	Connections				
	P→A	P→B	A→T	B→T	P→T
01	5	5	5	5	5
02	6	6	6	6	
06	5	5	6	5	4
16	5	5	4	4	
17	1	3			6
66	5	5	5	6	
32	1	1	2	2	2

Curves No.

The diagram at side shows the Δp curves for spool in 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.

TAB.2 - VOLTAGE

D15 COIL (30W) **

L	12V	
M	24V	
V	28V*	115Vac/50Hz 120Vac/60Hz with rectifier
N	48V*	
Z	102V*	
P	110V*	230Vac/50Hz 240Vac/60Hz with rectifier
R	205V*	
W	Without DC coils and connectors	

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

* Special voltage
 ** Technical data see page I • 19

TAB1 - STANDARD SPOOLS FOR AD3V

POSSIBLE MOUNTING: E / F / H

Spool type	Covering	Transient position
01E	+	
01F	+	
02E	-	
06H*	+	
16E	+	
17F	+	
66F	+	
32E	+	

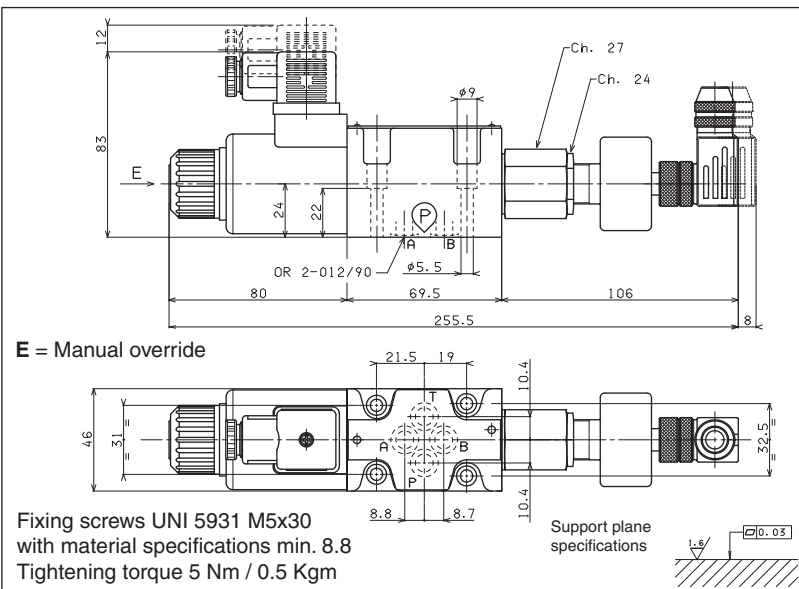
(*) Spool with price increasing

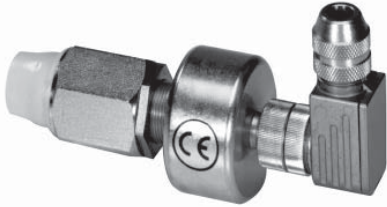
TAB.3 - VARIANTS

No variant (without connectors)	S1(*)
Viton	SV(*)
Emergency button	ES(*)
Without proximity connector LVDT	S3
Without coils and proximity connector	S4
AMP Junior coil	AJ(*)
AMP Junior coil and integrated diode	AD(*)
Coil with flying leads (175mm)	SL
Deutsch DT04-2P Coil type	CZ

Other variants available on request.

(*) Coils with Hirschmann and AMP Junior connection supplied without connectors. The connectors can be ordered separately, ch. I page 20.





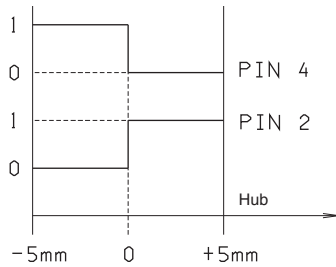
PROXIMITY SENSOR TYPE L.V.D.T.

Supply voltage	24 V \pm 20%
Polarity reversal protection	max 300 V
Switching point hysteresis	\leq 0,06 mm
Reproducibility	\pm 0,02 mm
Max. output current	\leq 250 mA
Protection against short circuit	yes
Operating temperature	-25°C \div 85°C
Connection type	connector
Protection according to DIN	IP65
Max. pressure	315 bar

CE certificate according to 89/336/EEC EMC is provided. A screened cable is needed.

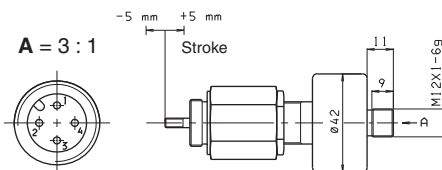
The LVDT position transducers allow to check exactly the very instant when the passage of a minimum flow is allowed.

FUNCTIONAL DIAGRAM ON PIN 2 AND 4

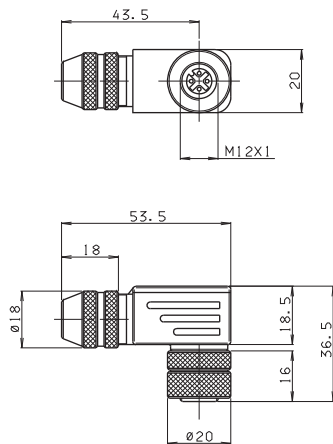


0 = Voltage Pin 2 and Pin 4 < 1,8 V
1 = Voltage Pin 2 and Pin 4 24 V \pm 20%

OVERALL DIMENSION LVDT



OVERALL DIMENSIONS CONNECTOR

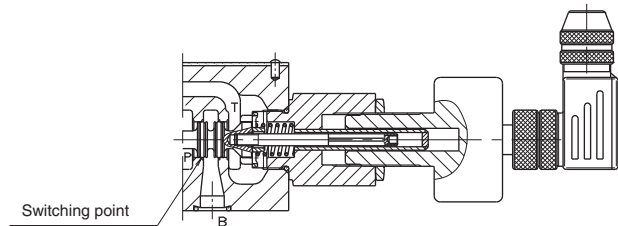
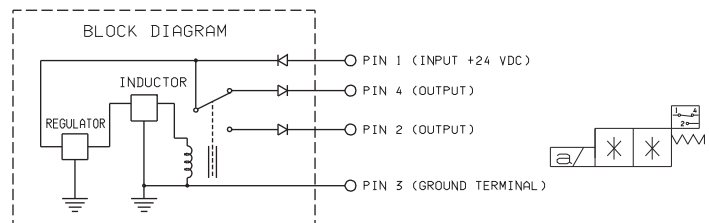


Type of protection IP67
Ambient temperature -40°C \div 85°C

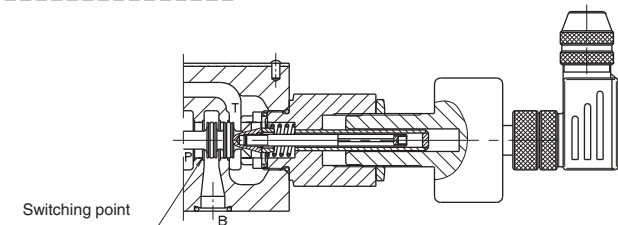
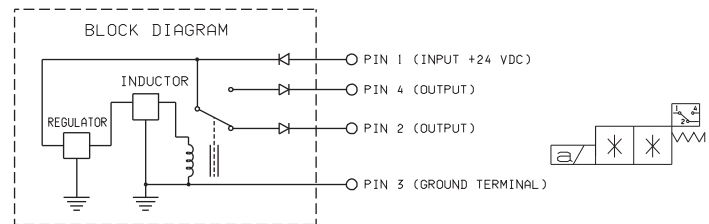
Ordering code: V86400003

ELECTRICAL CONNECTIONS LVDT

- A** With this connection, on the Pin 4 an output signal is active when no oil is crossing the valve (from P \rightarrow B).



- B** With this connection, on the Pin 4 there is no output signal when oil is crossing the valve (from P \rightarrow B).



NB: connecting the output to Pin 4 or Pin 2 the type of contact, normally closed or open, can be chosen.