

Valves type AD3.E.. variant XS with increased safety solenoids and coils in accordance with EEx "me" standard.

This type of solenoid valve is equipped with EEx me II type increased safety solenoids; these solenoids are constructed in accordance with European standards (EN 50 014 - EN 50 019 - EN 50 028). Also the cable glands are in accordance with these rules. The definition of the reference standard in accordance with which these solenoids are certified is given. **Encapsulation "m"**: protection method whereby the components which could be inflammable in an explosive atmosphere with sparks of overheating are closed in a compound where this explosive atmosphere cannot ignite. **Increased safety "e"**: protection method whereby



complementary measures are enforced to provide increased safety against the possibility of excessive temperatures and the formation of sparks inside or outside an electrical construction which does not produce sparks in normal operation. The solenoid has also been given a BASEEFA Ex89Y5111X certificate. **Special conditions for correct usage:** cable entry temperature may exceed 70°C.

VALVE SPECIFICATIONS

Max. pressure ports P/A/B	320 bar
Max. pressure port T (dynamic)	160 bar
Max. flow	60 l/min
Max. excitation frequency	3 Hz
Hydraulic fluid	mineral oil DIN 51524
Fluid viscosity	10 ÷ 500 mm ² /s
Fluid temperature	0°C ÷ 60°C
Ambient temperature	-25°C ÷ 60°C
Max. contamination level	class 10 in accordance with NAS 1638 with filter β ₂₅ ≥ 75
Weight	3,4 Kg
Available voltages: DC	L 12V
	M 24V
Available voltages: AC	C 110V/50Hz
	D 220V/50Hz

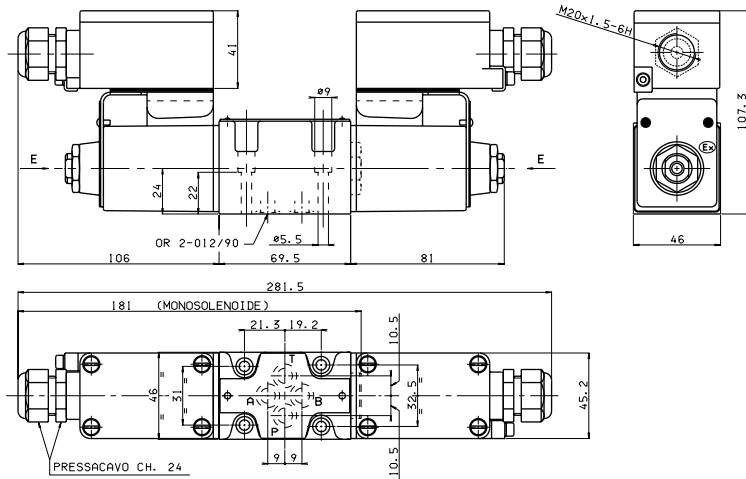
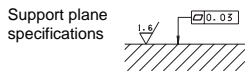
SOLENOID SPECIFICATIONS

Type of protection (In relation to connectors used)	IP 66
Rated power class T4 (VDC)	30W
Class T4 (VAC rectified)	35VA
Number of duty cycles	18000/h
Supply tolerance	-10% ÷ 5%
Fluid viscosity	10 ÷ 500 mm ² /s
Ambient temperature	-54°C ÷ 60°C
Duty cycle	100%ED
Max. static pressure	210 bar
Max. coil temperature	110°C
Weight	1,1 Kg

OVERALL DIMENSIONS

E = Manual override

Fixing screws UNI 5931 M5x30 with material specification 12.9
Tightening torque 5 Nm / 0.5 Kgm



LIMITS OF USE FOR ELECTRICALLY OPERATED DIRECTIONAL CONTROL VALVES AD3.E...XS

The curve refers to spool 03

For all other spools the limits of use are the same as those for the standard type solenoid valves AD.3.E...

The tests have been carried out with the solenoids at temperature of 40°C with a voltage 10% less than rated voltage and a fluid temperature of 40°C. The fluid used was a mineral oil with a viscosity of 46 mm²/s at 40°C.

The values in the diagram refer to tests carried out with the oil flow in two direction simultaneously (e.g.. from P to A and at the same time B to T).

In case where valves 4/2 and 4/3 were used with the flow in one direction only, the limits of use could have variations which may even be negative.

