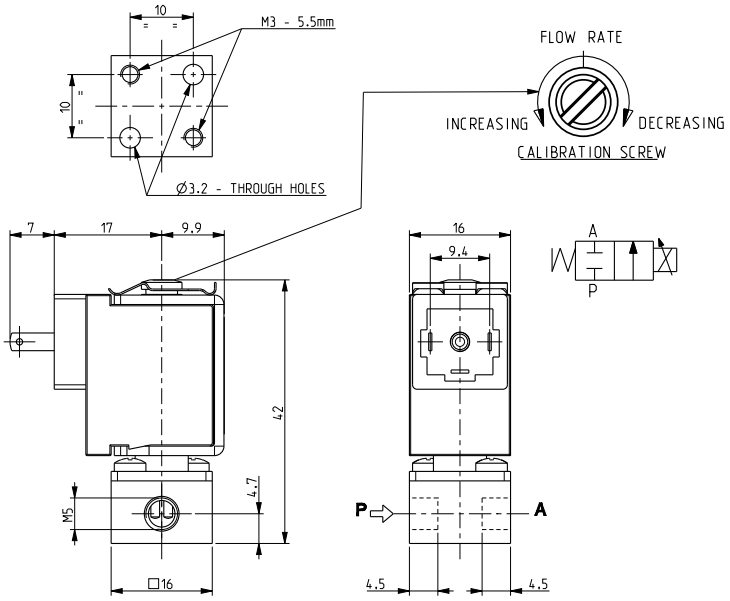
ASCO™ MICRO SOLENOID VALVE

2 WAYS - NORMALLY CLOSED – DIRECT ACTING - M5

SERIES
V164-B90



General Features
Direct acting micro solenoid valve. Minimum overall dimensions.
Suitable to shut off liquid and gaseous fluids (verify the compatibility of fluid with materials in contact).
The flow rate is proportional to the input electric signal.
The proportional response feature (flow rate/electric signal) can be calibrated by the customer so to match several applications.
Overleaf the charts show the features of standard valves calibrated at the factory as example of the possible operating conditions.

Calibration
The flow calibration has to be carried out as if the valve was in operation:
- inlet fluid pressure at the selected constant value
- operating simulator at the outlet
- energizing the valve with the chosen electric signal.

Adjust the calibration screw till the desired flow is achieved.
De-energize the coil and check the valve tightness (1).
Rectify the calibration if necessary and check the flow rate again.
Once the valve is calibrated seal the calibration screw by using any suitable sealant.
(We recommend the use of 3M Scoth-Weld TM DP 190).
WARNING: the calibration screw does not guarantee the tightness, therefore, during the calibration there will be a weak leakage; don't calibrate the valve while using toxic fluids.

Technical Features	
Maximum allowable pressure (PS)	16 bar
Fluid temperature	-10°C +90°C
Max viscosity	3°E (22 cStokes or mm²/s)

Materials in Contact with Fluid	
Body	Brass
Sealing	NBR
Internal components	Stainless steel
Seat	Brass
Core tube	Stainless steel

Coil		
Continuous duty		ED100% (see note "A" overleaf)
Encapsulation material		PA (Polyamide) fiberglass reinforced
Insulation class		F (155°C)
Ambient temperature		-10°C / +60°C
Electric connections		DIN 46340
Protection degree		IP 65 (EN 60529) with micro plug connector
Voltages	DC	12 - 24V

Port size ISO UNI 4534	Orifice size (mm)	Inlet differential pressure (bar)	Kv (m³/h)	Series and type		Power absorption			Sealings	Notes	Weight (kg)
				Valve	Coil	AC (VA)		DC (W)			
M5	1,6	0,5 ÷ 5	0,04	**V164B90**	**ZE30A**	-	-	4	NBR	-	0,060
		0,2 ÷ 3			**ZE30C**			2,5			

Notes
- These micro-solenoid valves are not suitable for stagnating media subject to vaporization which deposit solid, calcareous, incrusting residues or similar.
- Seal: NBR = Nitrile-butylene elastomer
- Factory calibrated versions are available, ask for the relative data sheet

(1) The maximum sealing pressure at de-energized coil changes in relation with the calibration.

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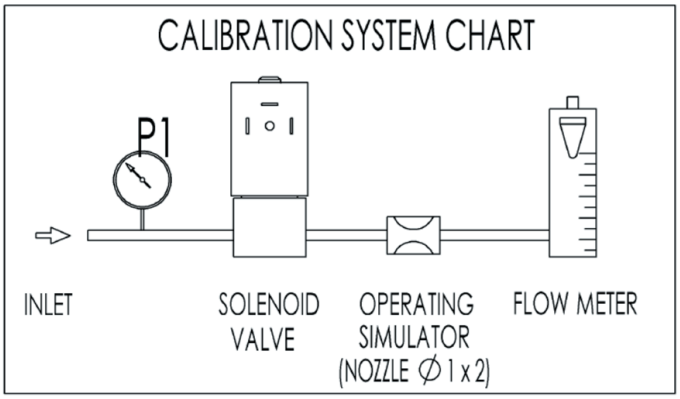
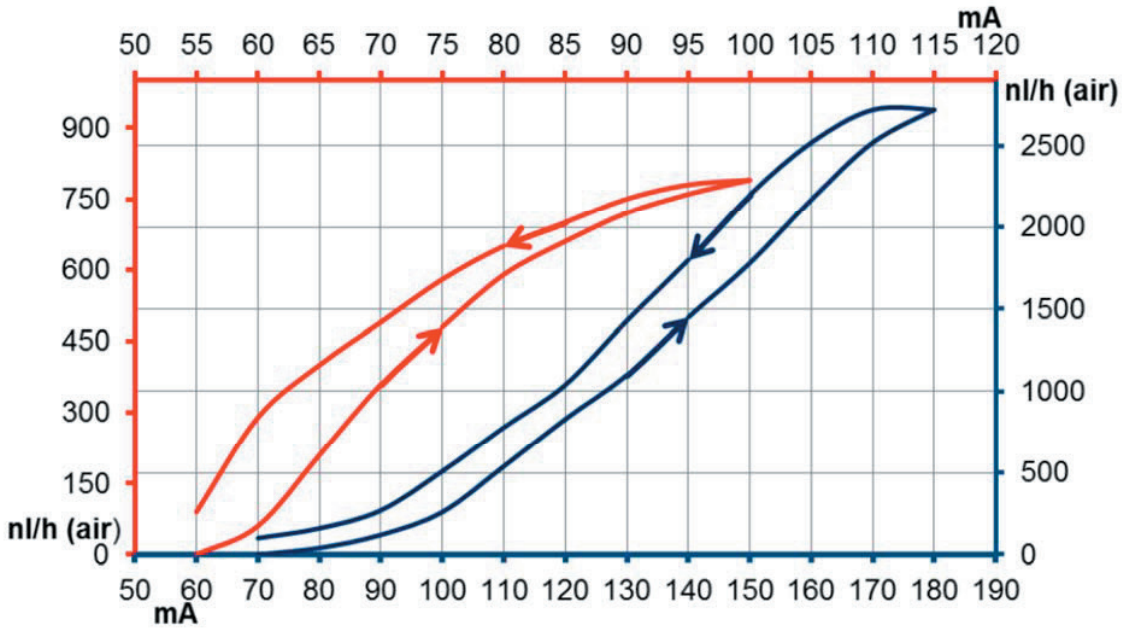


V164B90 – ZE30C/ZE30A (orifice size=1.6mm)
CHARACTERISTIC CURVE AT INLET PRESSURE =1bar **(ZE30C)** and 3 bar **(ZE30A)** (dehumidified and non-lubricated air)
NB: maximum sealing pressure at de-energized coil =3,5 bar for ZE30C and 5,5bar for ZE30A
Reference coil 24V DC
(See note "A")



Installation
- Solenoid valve can be mounted in any position; vertical with coil upwards preferred.

NOTE "A"
It is necessary to keep the current circulating in the coil constant, so as to maintain the solenoid valve in any pre-determined position. In case the solenoid valve is energised by voltage variation, it has to be considered that the resistance of winding increases because of the continued energizing and consequently the power decreases. Therefore, it is necessary to compensate such power decrease by increasing the voltage to re-establish the initial current value.