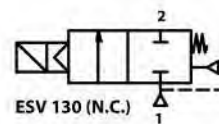


## TECHNICAL SPECIFICATIONS, DESCRIPTIONS and GENERAL FEATURES



- **Fluids:** Valves are suitable for water, low viscosity oils etc... non-aggressive liquids and Air, Inert Gas etc... gaseous but is not suitable for hazardous fluids
- **Switching Function:** Normally Closed (N.C, Closed when de-energised)
- **Principle of Operation:** Pilot Operated
- **Way Number:** 2/2 (Ports / Positions)
- **Connection and Port Sizes:** G1/8" up to G1"
- **Connection Type:** Thread (Female), G (BSPP / ISO 228-1)
- **Pressure Range:** -0,35 -12 Bar
- **Fluid Temperature:** -10°C to max. 80°C
- **Ambient Temperature:** -20°C to max. 70°C
- **Opening Time:** 200ms up to 1500ms
- **Closing Time:** 500ms up to 2000ms
- **Max Viscosity:** 38 cSt or mm<sup>2</sup>/s
- **Maximum Allowable Pressure or Design Pressure:** 18 bar
- **Minimum operating differential pressure:** 0,35 Bar
- Valve has sealing o-rings
- Suitable AC and DC voltage, high voltage tolerance
- Coil interchangeable without dismantling the valve (don't matter AC or DC)
- High flow rate, high reliability, high mechanical strength
- Various flow rate options, wide range of orifice options
- Mounting position, optional any position but preferably solenoid coil vertical on top
- The fluid passing through the valve must be filtered
- Flow rate (Q) can be usually calculated as a function of pressure, density and flow coefficient
- According 97/23/EC Pressure Equipment Directive (PED), 2006/95/EEC Low Voltage Directive (LVD) and 2004/108/EC Electromagnetic Compatibility Directive (EMC)



Low Coil Power	Min Ops Differential Pressure 0,35 bar	Coil Rotatable 360°	High Reliability
Full Orifice	Patented Enclosing Tube Design	High Performance	Long Life



02-07  
ESV 130

Model No	Position	Connection and Port Size	Orifice Size	Flow Factor / Coefficient Kv	Operating Pressure Differential				Fluid Temperature		Seal	Approximate Weight	Reference Figure	
					Min. (For AC)	Min. (For DC)	Max. (For AC)	Max. (For DC)	Min. °C	Max. °C				
ESV		G	mm	L/m	m <sup>3</sup> /h	Bar	Bar	Bar	Bar	°C	°C	kg		
ESV 130.02	N.C	3/8"	12	40	2.40	0.35	0.35	12	12	-10	80	NBR	0.44	Fig.1
ESV 130.03	N.C	1/2"	15	70	4.20	0.35	0.35	12	12	-10	80	NBR	0.5	Fig.1
ESV 130.04	N.C	3/4"	20	130	7.80	0.35	0.35	12	12	-10	80	NBR	0.56	Fig.1
ESV 130.05	N.C	1"	25	180	10.80	0.35	0.35	12	12	-10	80	NBR	0.82	Fig.1
ESV 130.00.120	N.C	1/8"	12	20	1.20	0.35	0.35	12	12	-10	80	NBR	0.49	Fig.1
ESV 130.01.120	N.C	1/4"	12	25	1.50	0.35	0.35	12	12	-10	80	NBR	0.47	Fig.1

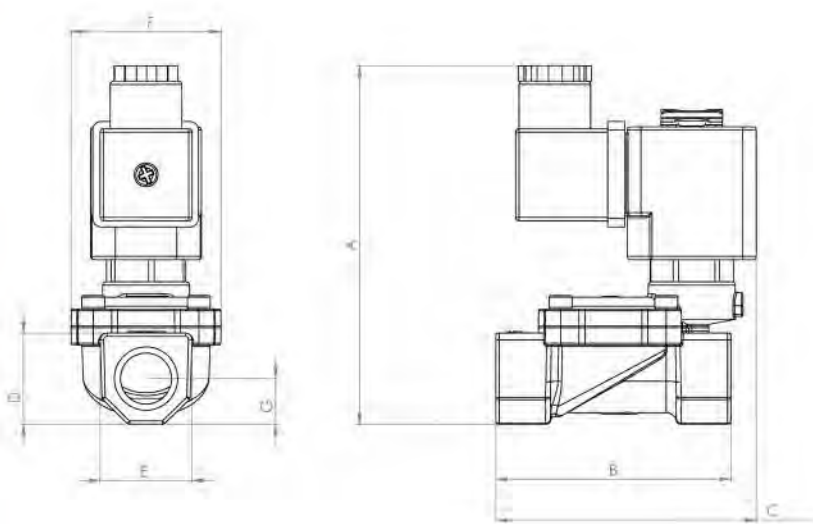
## OPTIONS

- Custom options can be performed for customer's special requests
- On request; NPT (ANSI 1.20.3), R (BSPT / ISO 7-1), W (BSW / Whitworth), M (Metric) etc...
- On request; diaphragm or sealing or o-rings can be FPM (VITON) [-10°C to 160°C], EPDM [-10°C to 140°C]
- On request; various body surface coating, nickel plated body, different body materials, manual override, seat can be stainless steel, filter, other pipe connections, flanged connection
- On request; other special supply voltages, frequencies (60 Hz), other power, coil insulation class : F (155°C), coil duty latching model
- On request; with electronic timer, Explosion-Proof coil for use in zones 1/21-2/22 (Eex em II T4/T5), coil encapsulation material can be fiber glass reinforced (V0 or V1)
- On request; connector with LED or without connector, connector with visual indication and peak voltage suppression, connector with cable length of 2m, connector non-flammable
- On request other versions

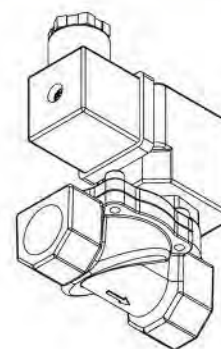
## POWER CONSUMPTION

Power Consumption							
Alternating Current (AC)				Direct Current (DC)			
Model No	Voltage	Inrush (VA)	Holding (VA)	Model No	Voltage	Cold (W)	Hot (W)
ECO 25.AC.012	12V	8,5	5	ECO 25.DC.012	12V	5,5	4
ECO 25.AC.024	24V	8,5	5	ECO 25.DC.024	24V	5,5	4
ECO 25.AC.048	48V	8,5	5	ECO 25.DC.048	48V	5,5	4
ECO 25.AC.110	110V	8,5	5	ECO 25.DC.110	110V	5,5	4
ECO 25.AC.230	230V	8,5	5	ECO 25.DC.230	230V	5,5	4

## DIMENSIONS (mm)



Size	A	B	C	D	E	F	G
1/8"	95	66	76.5	26.8	26.9	44	13.4
1/4"	95	66	76.5	26.8	26.9	44	13.4
3/8"	95	66	76.5	26.8	26.9	44	13.4
1/2"	95	66	76.5	26.8	26.9	44	13.4
3/4"	100	77	86.8	31.8	31.9	53.8	15.3
1"	100	86	95.5	40.9	40.7	62	20.5



## ELECTRICAL CHARACTERISTICS

- **Protection Degree:** IP 65 (EN 60529) ( with connector )
- **Plug Connection:** DIN 46340-3 poles connectors (DIN 43650)
- **Electrical Safety:** IEC 335, EN 60335-1, EN 60204-1
- **Coil Insulation Class:** H (180°C)
- **Coil Impregnation:** Polyester Fiber-Resin Glass
- **Coil Encapsulation Material:** Fiber Glass Reinforced (V2)
- **Supply Voltages:** For AC(-) 12V, 24V, 48V, 110V, 230V  
For DC (=) 12V, 24V, 48V, 110 V, 230 V
- **Voltage Tolerances:** For AC (-) or DC (=) % -10 ; % +10
- **Frequency:** 50 Hz
- **Coil Duty Cycle:** %100 ED, Continuously Rated
- Design according to DIN VDE 0580

## MATERIALS

- **Body:** Brass
- **Plunger Seal:** NBR
- **Enclosing Tube:** Stainless Steel (AISI 430FR and AISI 304)
- **Plunger:** Stainless Steel (AISI 430FR)
- **Springs:** Stainless Steel (AISI 302)
- **Shading Ring:** Copper
- **Seat:** Brass
- **O-rings:** NBR
- **Internal Metal Parts:** Stainless Steel and Brass
- **Cover:** Brass
- **Diaphragm/Seat Seal:** NBR
- **Cover Screws:** Stainless Steel