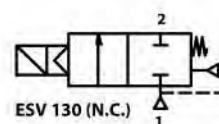


TECHNICAL SPECIFICATIONS, DESCRIPTIONS and GENERAL FEATURES



- **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 mm²/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 ³ /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

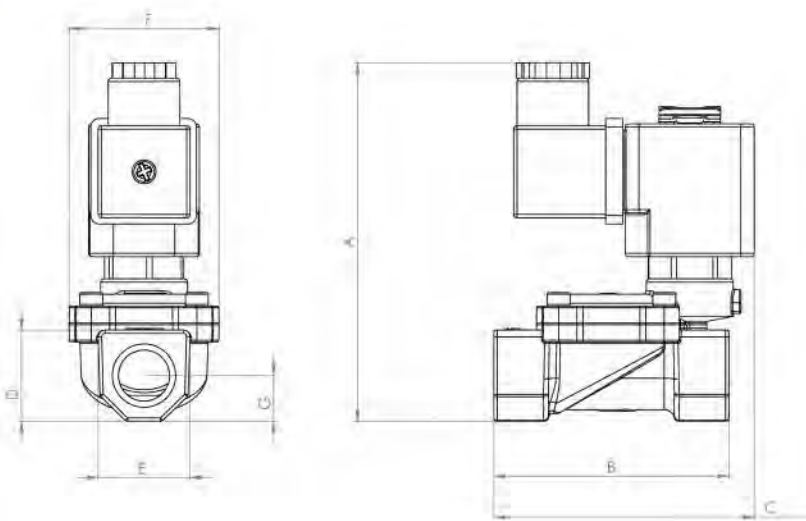
OPTIONS

- 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

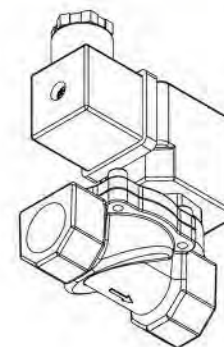
POWER CONSUMPTION

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