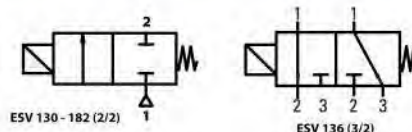


TECHNICAL SPECIFICATIONS, DESCRIPTIONS and GENERAL FEATURES

- **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:** Direct Operated
- **Way Number:** 2/2 (Ports / Positions) (ESV 130-182) and 3/2 (Ports / Position) (ESV 136)
- **Connection and Port Sizes:** G1/8" and G1/4"
- **Connection Type:** Thread (Female), G (BSPP / ISO 228-1) (ESV 130-136) and Thread (Male), G (BSPP / ISO 228-1) (ESV 182)
- **Pressure Range:** 0 -16 Bar (ESV 130-182 Series) , 0-12 Bar (ESV 136 Series)
- **Fluid Temperature:** -10°C to max. 80°C
- **Ambient Temperature:** -20°C to max. 70°C
- **Opening Time:** 25 ms
- **Closing Time:** 25 ms
- **Max Viscosity:** 38 cSt or mm²/s
- **Maximum Allowable Pressure or Design Pressure:** 24 bar
- Don't require differential pressure
- 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)
- Low flow loss, low power loss
- Various flow rate options, wide range of pressure ratings, 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
- According 97/23/EC Pressure Equipment Directive (PED), 2006/95/EEC Low Voltage Directive (LVD) and 2004/108/EC Electromagnetic Compatibility Directive (EMC)
- Flow rate (Q) can be usually calculated as a function of pressure, density and flow coefficient



ESV 130-182 (2/2)

ESV 136 (3/2)

For ESV 136

 1: Inlet
 2: Outlet (Body)
 3: Outlet (Enclosing Tube)

 De-energised: 1-3
 Energised: 1-2


Low Coil Power	Don't Require Differential Pressure	Coil Rotatable 360°	Small Body Size
Low Weight	Patented Enclosing Tube Design	Fast Opening and Closing	Low Pressure Loss



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 130.00.018	N.C	1/8"	1.8	1.7	0.10	0	0	16	16	-10	80	NBR	0.21	Fig.1
ESV 130.00.025	N.C	1/8"	2.5	3.3	0.19	0	0	10	10	-10	80	NBR	0.21	Fig.1
ESV 130.00.030	N.C	1/8"	3	4.5	0.27	0	0	6	6	-10	80	NBR	0.21	Fig.1
ESV 130.00.040	N.C	1/8"	4	6.5	0.39	0	0	2.5	2.5	-10	80	NBR	0.21	Fig.1
ESV 130.01.018	N.C	1/4"	1.8	1.7	0.10	0	0	16	16	-10	80	NBR	0.19	Fig.1
ESV 130.01.025	N.C	1/4"	2.5	3.3	0.19	0	0	10	10	-10	80	NBR	0.19	Fig.1
ESV 130.01.030	N.C	1/4"	3	4.5	0.27	0	0	6	6	-10	80	NBR	0.19	Fig.1
ESV 130.01.040	N.C	1/4"	4	6.5	0.39	0	0	2.5	2.5	-10	80	NBR	0.19	Fig.1
ESV 136.00.018	N.C	1/8"	1.8	"1-2;1,4 2-3;0,5"	"1-2;0,08 2-3;0,03"	0	0	12	12	-10	80	NBR	0.23	Fig.2
ESV 136.01.018	N.C	1/4"	1.8	"1-2;1,4 2-3;0,5"	"1-2;0,08 2-3;0,03"	0	0	12	12	-10	80	NBR	0.21	Fig.2
ESV 182.00.018	N.C	1/8"	1.8	1.7	0.10	0	0	16	16	-10	80	NBR	0.24	Fig.3
ESV 182.01.018	N.C	1/4"	1.8	1.7	0.10	0	0	16	16	-10	80	NBR	0.22	Fig.3

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 VITON (-10°C to 160°C), EPDM (-10°C to 140°C)
- On request; various body surface coating, nickel plated body, different body materials, seat can be stainless steel, filter, other pipe connections, 2 or 4 mounting sub-base holes at the bottom of the body
- 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 (Ex 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)

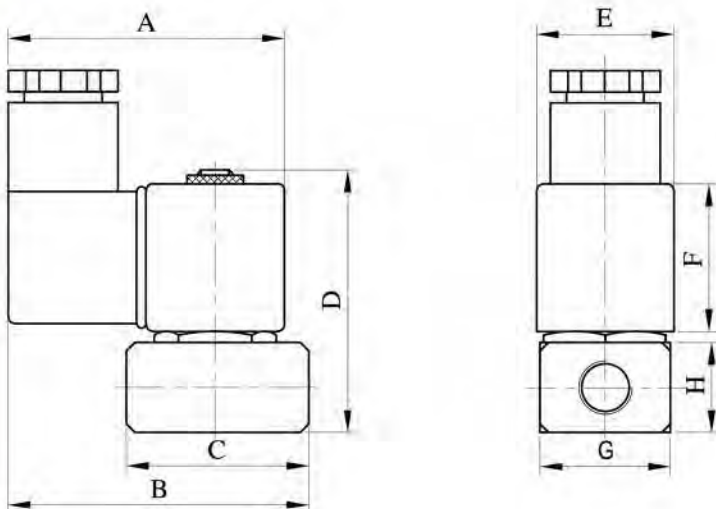


Fig. 1

Size	A	B	C	D	E	F	G	H
1/8"	19	68	36	57	21	30	20	19
1/4"	19	68	36	57	21	30	20	19

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