

# ELS-1200 Series

ELECTRO OPTIC

LEVEL SWITCHES

## Integral Electronics

High pressure liquid processes can now be monitored effectively with very little intrusion into tanks or piping. ELS-1200 switches feature fused glass prisms fused to zinc/nickel plated, carbon steel housings. You will find them to be a compact, reliable and durable solution to liquid level monitoring of refrigerant, compressor oil, hydraulic system reservoirs and machine tools.

## Removable Electronics

These electro-optic switches feature a one piece removable electronics module with 1/2" NPT conduit connection and an internal O-ring seal to protect against external moisture intrusion. Simply unthread the 1/2" NPT conduit connection for easy replacement of the electronics module without the inconvenience of emptying or depressurising tanks. ELS-1200 switches feature glass prisms fused to zinc/nickel plated, carbon steel housings. Select from either 1/2" NPT mounting connections, or 3/4"-16 UNJF-3A straight thread connections with an external O-ring seal. They monitor high pressure liquid processes with very little intrusion into tanks or piping.

## Specifications

<b>Mounting</b>	1/2" NPT or 3/4"-16 UNJF-3A Thread (Viton 'O' ring)
<b>Materials</b>	
<b>Housing</b>	Zinc/Nickel Plated Carbon Steel <sup>①</sup>
<b>Prism</b>	Fused Glass
<b>Operating Pressure</b>	172 bar, Maximum*
<b>Operating Temperature***</b>	
<b>5/12 VDC</b>	-40°C to +100°C
<b>24/120 VAC</b>	-29°C to +116°C (Prism tip) -29° to 75°C (Electronics)
<b>Current Consumption</b>	
<b>5/12 VDC</b>	~45 mA
<b>24/120 VAC</b>	~6 mA
<b>Output</b>	
<b>5/12 VDC</b>	TL/CMOS compatible. Transistor output with 10K pull up Resistor may sink 18mA. 12 VDC Input power units switch a maximum 5 VDC on output
<b>24/120 VAC</b>	Normally Open: SPST (10 VA Resistive) Max. Switching Volts: V in ±10% Max. Switching current: 225 mA @ rated voltage @ 25°C
<b>Electrical Termination**</b>	
<b>5/12 VDC</b>	22 AWG, Polymeric, 0.3m extended lead wires
<b>24/120 VAC</b>	20 AWG, Polyester, 0.3m extended lead wires
<b>Repeatability</b>	±1mm

- \* For straight thread mounting units when installed with tube fitting per MS 33649
- \*\* Consult GEMS for cable options
- \*\*\* These switches are not for use in freezing liquids. Consult factory for higher temperature units.
- ① Hastelloy thread with Stainless Steel body is available for harsh environments. Contact Sales Office for details

## How To Order

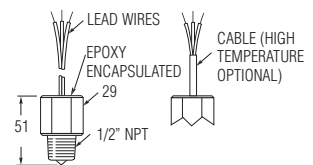
Input Power	Probe Condition at Current Sink	Electronics	Mounting Style	
			1/2" NPT	3/4"-16 UNJF
5 VDC	Wet	Integral	153842	---
	Dry	Integral	154177	---
	Wet	Removable	171574	161431
	Dry	Removable	160953	161432
12 VDC	Wet	Integral	153843	---
	Dry	Integral	154178	---
	Wet	Removable	160646	161433
	Dry	Removable	160954	161434
24 VAC	Wet	Removable	166852	168174
	Dry	Removable	166854	168422
120 VAC	Wet	Removable	164219	166848
	Dry	Removable	164222	166850

(Wet = NO, Dry = NC)

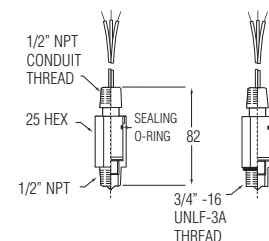


## Dimensions

ELS-1200 Integral Electronics

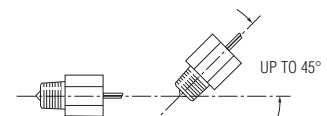


ELS-1200 Removable Electronics



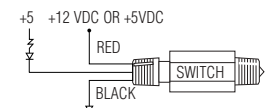
## Mounting Attitude

These units must be mounted horizontally or up to 45° from horizontal only.

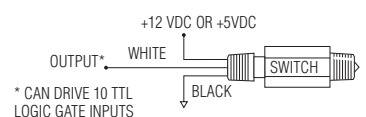


## Wiring Diagrams

Transistor Output



TTL Compatible Output



## SPST, 24 or 120 VAC Output

