

# ILSE series

## External Mount Hydrostatic Level Transmitter



- **Piezo-resistive sensor**
- **Accuracy  $\leq \pm 0.25\%$  FS BFSL**
- **Various outputs including Volts and mA.**
- **Level ranges from 1mWG to 10 mWG**

The external mount hydrostatic level transmitter, ILSE, has a piezo-resistive silicon pressure sensor which is an oil-filled isolated diaphragm. The sensor and housing are made from stainless steel with a choice of internal O ring seals to ensure the product is suitable for a wide range of applications.

The electronics incorporate a microprocessor based amplifier, requiring no adjusting and giving stable electronics, especially in high vibration/shock applications.

Every device is temperature compensated, calibrated and supplied with a traceable serial number and calibration data.\*

### Input Pressure Ranges

Nominal level, Gauge,	mWG	1	2.5	5	7	10
Permissible Overpressure	mWG	20	20	20	50	50

### Suitable applications

Environmental engineering	Container or chamber level
Rainwater harvesting	Automotive testing
Static tank level	Vehicle tank level
Laboratory testing	IBC, IBC Tote or pallet tank

### Performance

Accuracy (Non-Linearity & Hysteresis)	$\leq \pm 0.25\%$ / FS (BFSL)	
Setting Errors (offsets)	2-wire	Zero & Full Scale, $\leq \pm 0.5\%$ / FS
	3-wire	Zero & Full Scale, $\leq \pm 0.5\%$ / FS
Permissible Load	2-wire	$R_{max} = [(VS-VSmin)/0.02] \Omega$
	3-wire	$R_{min} = 10k\Omega$
Influence Effects	Supply	$< 0.005\%$ FS / 1V
	Load	0.05% FSO / $k\Omega$

### Material Specifications

Housing	303 Stainless Steel
"O" ring seals	Viton
Diaphragm	316L Stainless Steel
Media wetted parts	Housing & process connection, "O" ring seal, diaphragm

### Miscellaneous

Current consumption	2-wire - limits at 28mA 3-wire - typical 6mA
Weight	Approx 100g
Installation position	Any, small zero shift when tilted through 90°
Operational Life	$> 100 \times 10^6$ cycles
Insulation resistance	$> 50M\Omega$ at 50Vdc

### Electrical Protection

Supply reverse polarity	No damage but also no function
Electromagnetic compatibility	CE Compliant

### Mechanical Stability

Shock	100g / 11s
Vibration	10g RMS (20 - 2000Hz)

### Temperatures & Thermal Effects

Media Temperature	-40°C to +125°C
Ambient Temperature	-20°C to +80°C
Storage temperature	-40°C to +125°C
Compensated temperature range	+20°C to +80°C
Thermal Zero Shift (TZS)	$\leq \pm 0.04\%$ /FS/°C
Thermal Span Shift (TSS)	$< -0.015\%$ /°C

\*Calibration data is supplied as a sticker affixed to the product packaging - do not discard

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ISO9001 CERTIFIED



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### Output Signal and Supply Voltage

Wire system	Output	Supply Volts	Connection	Pin No. (Large plug and socket)
2-wire	4-20mA	9-32Vdc	+ve Supply -ve Supply Ground	Pin 1 Pin 2 Earth pin
3-wire	0.5 - 4.5Vdc (non-ratiometric)	9-32 Vdc	+ve Supply -ve Supply +ve Output Ground	Pin 1 Pin 2 Pin 3 Earth Pin

Part No	Pressure Range	Output
ILSE-G0100-5	0 - 1mWG	4-20mA
ILSE-G0250-5	0 - 2.5mWG	4-20mA
ILSE-G0500-5	0 - 5mWG	4-20mA
ILSE-G0700-5	0 - 7mWG	4-20mA
ILSE-G1000-5	0 - 10mWG	4-20mA
ILSE-G0100-D	0 - 1mWG	0.5 to 4.5V 3Wire
ILSE-G0250-D	0 - 2.5mWG	0.5 to 4.5V 3Wire
ILSE-G0500-D	0 - 5mWG	0.5 to 4.5V 3Wire
ILSE-G0700-D	0 - 7mWG	0.5 to 4.5V 3Wire
ILSE-G1000-D	0 - 10mWG	0.5 to 4.5V 3Wire

