

ILSEU 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 0-48" (0-4ft) to 0-480" (0-40ft) water gauge (Custom ranges available on request)**

Input Pressure Ranges

Nominal level, Gauge,	inchWG	40	100	200	280	400
Permissible Overpressure	inchWG	800	800	800	2000	2000

The external mount hydrostatic level transmitter, ILSEU, 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. *

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)	< $\pm 0.25\%$ / FS (BFSL)
Setting Errors (offsets)	2-wire Zero & Full Scale, < $\pm 0.5\%$ / FS
	3-wire Zero & Full Scale, < $\pm 0.5\%$ / 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 3.5oz (100g)
Installation position	Any, small zero shift when tilted through 90°
Operational Life	> 100 x 10 ⁶ cycles
Insulation resistance	> 50MΩ 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)	< $\pm 0.04\%$ /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
ILSEU-Gi048-5	0-48" WG	4-20mA
ILSEU-Gi120-5	0-120" WG	4-20mA
ILSEU-Gi240-5	0-240" WG	4-20mA
ILSEU-Gi360-5	0-360" WG	4-20mA
ILSEU-Gi480-5	0-480" WG	4-20mA
ILSEU-Gi048-D	0-48" WG	0.5 to 4.5V 3Wire
ILSEU-Gi120-D	0-120" WG	0.5 to 4.5V 3Wire
ILSEU-Gi240-D	0-240" WG	0.5 to 4.5V 3Wire
ILSEU-Gi360-D	0-360" WG	0.5 to 4.5V 3Wire
ILSEU-Gi480-D	0-480" WG	0.5 to 4.5V 3Wire

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

(Custom ranges and outputs available on request)

