ILSEU SERIES

EXTERNAL MOUNT HYDROSTATIC LEVEL TRANSMITTER



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.*

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

Features

- Piezo-resistive sensor
- Accuracy <±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)

Suitable Applications

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

SPECIFICATIONS

Performance

Accuracy (Non-linearity & Hysteresis)	<±0.25% / FS (BFSL)	
Setting Errors (Offsets)	2-wire	Zero & Full Scale, <±0.5% / FS
	3-wire	Zero & Full Scale, <±0.5% / FS
Permissible Load	2-wire	R_{max} = [(VS-VSmin)/0.02] Ω
	3-wire	R_{min} = 10 kΩ
Influence Effects	Supply	<0.005% FS / 1V
	Load	0.05% FSO / kΩ

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Material

Housing	303 Stainless Steel
"O" Ring Seals	Viton
Diaphragm	316L Stainless Steel
Media Wetted Parts	Housing & process connection, "O" ring seal, diaphragm

Electrical Protection

Supply Reverse Polarity	No damage/no function
Electromagnetic Compatibility	CE Compliant

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°
Operation Life	> 100 x 10^6 cycles
Insulation Resistance	> 50MOhms at 50Vdc

Environmental Conditions

Shock	100g / 11s
Vibration	10g RMS (20 - 2000Hz)
Media Temperature	-40°C to +125°C
Ambient Temperature	-20°C to +80°C
Storage Temperature	-40°C to +125°C
Humidity	5% to 95% RH non-condensing

Temperature & Thermal Effects

Compensated Temperature Range	+20°C to +80°C
Thermal Zero Shift (TZS)	<±0.04% /FS/°C
Thermal Span Shift (TSS)	<-0.015% /°C

Output Signal & Supply Voltage

Wire System	Output	Supply Voltage	Connection	Pin No. (Large Plug and Socket)
2-wire	4 - 20mA	9 – 32V dc	+ve Supply	Pin 1
			-ve Supply	Pin 2
			Ground	Earth pin
3-wire	0.5 - 4.5Vdc (non-ratiometric)	9 – 32V dc	+ve Supply	Pin 1
			-ve Supply	Pin 2
			+ve Output	Pin 3
			Ground	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)

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Input Pressure Ranges

Nominal Level, Gauge	inchWG	48	120	240	360	480
Permissible Overpressure	inchWG	800	800	2000	2000	2000

Output Signal & Supply Voltage

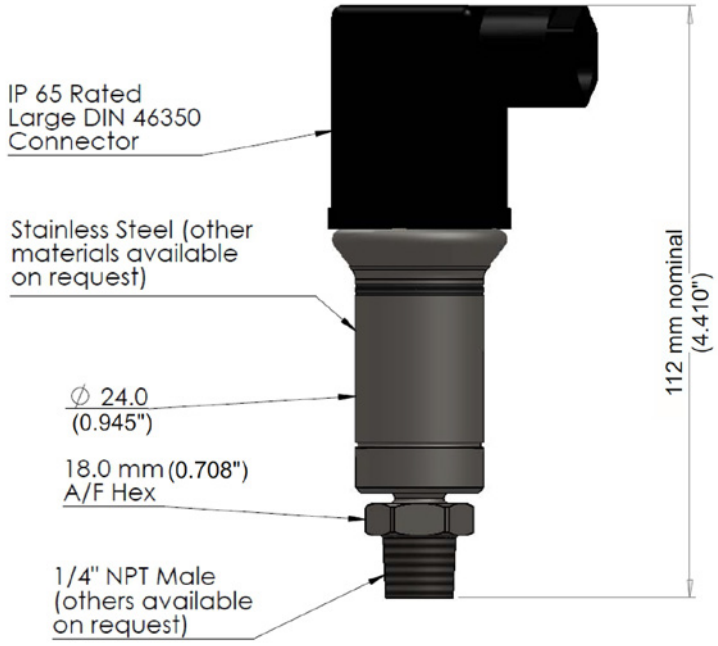
Wire System	Output	Supply Voltage	Connection	Pin No. (Large Plug and Socket)
2-wire	4 - 20mA	9 – 32V dc	+ve Supply	Pin 1
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			Ground	Earth pin
3-wire	0.5 - 4.5Vdc (non-ratiometric)	9 – 32V dc	+ve Supply	Pin 1
			-ve Supply	Pin 2
			+ve Output	Pin 3
			Ground	Earth pin

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DIMENSIONS

All dimensions are in millimeters.



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