

## ILSE SERIES

### EXTERNAL MOUNT HYDROSTATIC LEVEL TRANSMITTER

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.\*

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

#### Features

- Piezo-resistive sensor
- Accuracy  $<\pm 0.25\%$  FS BFSL
- Various outputs including Volts and mA
- Level ranges from 1mWG to 10 mWG
- 1/4" BSP Pressure port connection

#### 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

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

## Material

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

## Electrical Protection

<b>Supply Reverse Polarity Protection</b>	No damage/no function
<b>Electromagnetic Compatibility</b>	CE EMC directive · EN 61326-1:2013

## Miscellaneous

<b>Current Consumption</b>	2-wire Limits at 28mA
	3-wire Typical 6mA
<b>Weight</b>	Approx 100g
<b>Installation Position</b>	Any, small zero shift when tilted through 90°
<b>Operation Life</b>	> 100 x 10 <sup>6</sup> cycles
<b>Insulation Resistance</b>	> 50MΩ at 50Vdc

## Environmental Conditions

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

## Temperature & Thermal Effects

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

## PRESSURE RANGES

### Input Pressure Ranges

<b>Nominal Pressure, Gauge</b>	mWG	1	2.5	5	7	10
<b>Permissible Overpressure</b>	mWG	20	20	20	50	50

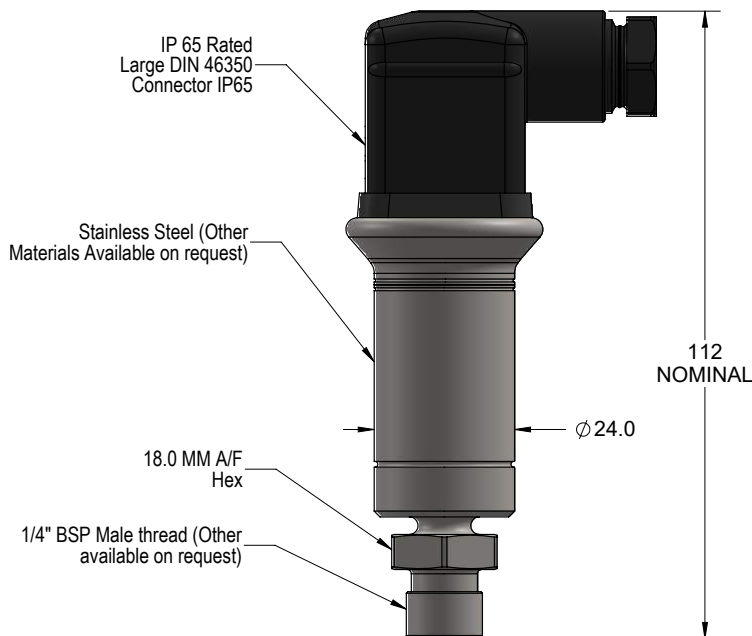
### Output Signal & Supply Voltage

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

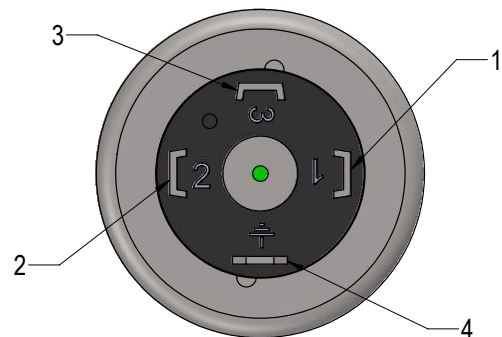
Part No	Pressure Range	Output
ILSE-G0100-5	0 - 1mWG	4-20mA
ILSE-G0250-5	0 - 2.5mWG	4-20mA
ILSE-G0500-5	0 - 5mWG	4-20mA
ILSE-G0700-5	0 - 7mWG	4-20mA
ILSE-G1000-5	0 - 10mWG	4-20mA
ILSE-G0100-D	0 - 1mWG	0.5 to 4.5V 3Wire
ILSE-G0250-D	0 - 2.5mWG	0.5 to 4.5V 3Wire
ILSE-G0500-D	0 - 5mWG	0.5 to 4.5V 3Wire

## DIMENSIONS

All dimensions are in millimeters.



### TOP VIEW (PIN OUT ELECTRICAL CONNECTION)



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