

ILSE SERIES

EXTERNAL MOUNT HYDROSTATIC LEVEL TRANSMITTER



CE

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

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	$R_{min} = 10 \text{ k}\Omega$
Influence Effects	Supply	$<0.005\%$ FS / 1V
	Load	0.05% FSO / $\text{k}\Omega$

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 Protection	No damage/no function
Electromagnetic Compatibility	CE EMC directive · EN 61326-1:2013

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

Environmental Conditions

Shock	100g / 11 ms
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

PRESSURE RANGES

Input Pressure Ranges

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

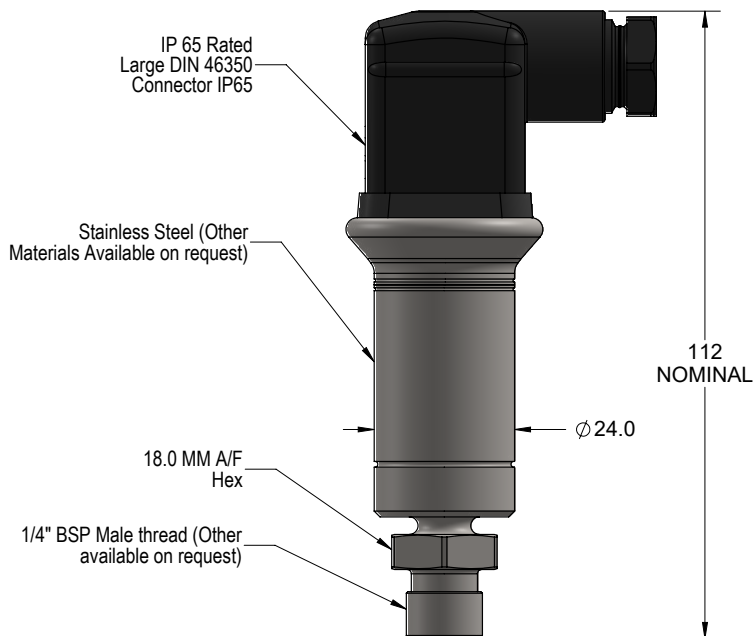
Output Signal & Supply Voltage

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

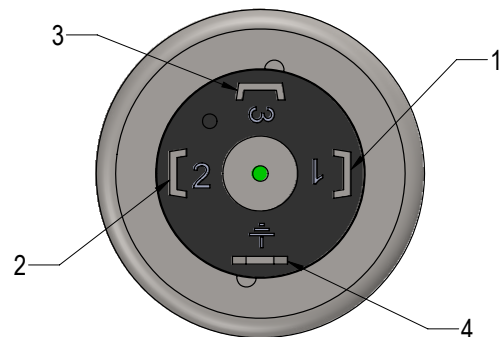
Part No	Pressure Range	Output
ILSE-G0100-5	0 - 1mWG	4-20mA
ILSE-G0250-5	0 - 2.5mWG	4-20mA
ILSE-G0500-5	0 - 5mWG	4-20mA
ILSE-G0700-5	0 - 7mWG	4-20mA
ILSE-G1000-5	0 - 10mWG	4-20mA
ILSE-G0100-D	0 - 1mWG	0.5 to 4.5V 3Wire
ILSE-G0250-D	0 - 2.5mWG	0.5 to 4.5V 3Wire
ILSE-G0500-D	0 - 5mWG	0.5 to 4.5V 3Wire

DIMENSIONS

All dimensions are in millimeters.



TOP VIEW (PIN OUT ELECTRICAL CONNECTION)



Sensata Technologies, Inc. ("Sensata") data sheets are solely intended to assist designers ("Buyers") who are developing systems that incorporate Sensata products (also referred to herein as "components"). Buyer understands and agrees that Buyer remains responsible for using its independent analysis, evaluation and judgment in designing Buyer's systems and products. Sensata data sheets have been created using standard laboratory conditions and engineering practices. Sensata has not conducted any testing other than that specifically described in the published documentation for a particular data sheet. Sensata may make corrections, enhancements, improvements and other changes to its data sheets or components without notice.

Buyers are authorized to use Sensata data sheets with the Sensata component(s) identified in each particular data sheet. HOWEVER, NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE TO ANY OTHER SENSATA INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY THIRD PARTY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT, IS GRANTED HEREIN. SENSATA DATA SHEETS ARE PROVIDED "AS IS". SENSATA MAKES NO WARRANTIES OR REPRESENTATIONS WITH REGARD TO THE DATA SHEETS OR USE OF THE DATA SHEETS, EXPRESS, IMPLIED OR STATUTORY, INCLUDING ACCURACY OR COMPLETENESS. SENSATA DISCLAIMS ANY WARRANTY OF TITLE AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, QUIET POSSESSION, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS WITH REGARD TO SENSATA DATA SHEETS OR USE THEREOF.

All products are sold subject to Sensata's terms and conditions of sale supplied at www.sensata.com SENSATA ASSUMES NO LIABILITY FOR APPLICATIONS ASSISTANCE OR THE DESIGN OF BUYERS' PRODUCTS. BUYER ACKNOWLEDGES AND AGREES THAT IT IS SOLELY RESPONSIBLE FOR COMPLIANCE WITH ALL LEGAL, REGULATORY AND SAFETY-RELATED REQUIREMENTS CONCERNING ITS PRODUCTS, AND ANY USE OF SENSATA COMPONENTS IN ITS APPLICATIONS, NOTWITHSTANDING ANY APPLICATIONS-RELATED INFORMATION OR SUPPORT THAT MAY BE PROVIDED BY SENSATA.

Mailing Address: Sensata Technologies, Inc., 529 Pleasant Street, Attleboro, MA 02703, USA.

CONTACT US

+44 (0)1202 897969
 c3w_sales@sensata.com
 Cynergy3 Components Ltd.
 7 Cobham Road,
 Ferndown Industrial Estate,
 Wimborne, Dorset,
 BH21 7PE, United Kingdom