

## IWPTL SERIES

### LOW RANGE INDUSTRIAL WIRELESS PRESSURE TRANSDUCER



#### Typical Applications Include

- Simple cable replacement installation
  - dispense with expensive cable runs
- Environmental monitoring
  - rainwater harvesting, environmental engineering
- Facilities management
  - boiler rooms, laboratory testing, tank gauging
- Asset monitoring
  - tanks farms, process plants, HVAC and building management
- Service Contract
  - temporary installation for servicing and field trials

#### SPECIFICATIONS

##### Transmitter Output

<b>*Transmission Frequency</b>	2.4 Ghz
<b>Transmit Power</b>	18 dBm
<b>System Channel</b>	User selectable via DIL switch
<b>Antenna</b>	Integral 0dBi

\*Compliant with EN 300 328, V1.8.1

The IWPTL Wireless Pressure Transducer is a cost effective replacement to a traditionally wired pressure transducer that offers the advantages of a low-cost installation in inaccessible and expensive installation environments.

It is easily paired to the compatible IWR family of single- or five-channel wireless receivers thus offering a “plug and play” solution to your pressure measurement applications.

The instrument uses a piezo-resistive silicon sensor mounted within a 316 stainless steel housing giving excellent media compatibility for the harshest of applications. A swivel adaptor is available which allows the head to be easily aligned to the IWR receiver - see IWPT-SA.

The IWPT sensor can be used with either an IWR-1 or IWR-5 receiver. A line-of-sight range of up to 500 m is possible depending on the wireless receiver used (refer to datasheets IWR-1 & IWR-5 for further information).

Each device is temperature compensated, calibrated and supplied with a traceable serial number.

#### Features

- Suitable for liquids and gases
- Pressure ranges from 0-50mbar to 0-1000mbar gauge
- Up to 500 m line-of-site range (depending on receiver)
- Piezo-resistive stainless steel sensor with stainless steel body
- Five-year battery life at 10 second transmission update rate
- Simple DIL switch pairing with the single or five channel receiver
- Single or five channel receivers available
- User-selectable transmission update rates
- User-selectable 1-5V or 4-20 mA receiver outputs
- Receiver clean contacts provide process alarm functions

#### System Performance

<b>Accuracy (Non-linearity &amp; Hysteresis)</b>	<±0.25% /FS (BFSL)
<b>Setting Errors (offsets)</b>	Zero & Full Scale, <±0.5% /FS

## Material Specifications

<b>Pressure Housing</b>	316 Stainless Steel
<b>"O" Ring Seals</b>	Viton
<b>Diaphragm</b>	316 Stainless Steel
<b>Wireless Enclosure Material</b>	Plastic
<b>Weight</b>	310g including battery
<b>**Installation Position</b>	Any
<b>Environmental Protection</b>	Designed to IP68 (not recommended for submersion due to signal loss)
** Consult installation manual to ensure adequate signal path between transmitter and receiver.	

## Receiver Output Signals

Receiver Part Number	Receiver Outputs
<b>IoT Gateway</b>	Built-in cellular modem allows all data to be sent to remote servers
<b>IWR-PORT</b>	RS-232 or RS-485 or Ethernet MODBUS Communications. Up to 128 off analog 4-20 mA or Relay outputs can be obtained by fitting extra ISOSLICE I/O modules
<b>IWR-USB</b>	Displays & Logs data on any PC running IWR-USB software
<b>IWR-5</b>	5 off 4-20 mA or 1-5 V dc and 1 Relay output
<b>IWR-1</b>	1 off 4-20 mA and 1-5 V dc and 1 Relay output
***Transmission Update Rate 1, 5, 10 and 30 seconds *** Consult installation manual for set-up: - Single channel system is DIL switch configurable - Five channel system requires set-up using "IWR Set" user software	

## Instrument Power Source

<b>Battery Type</b>	User replaceable Lithium C cell
<b>Battery Life</b>	Five years at 10 second update rate
<b>Battery Shelf Life</b>	10 years

## Environmental Conditions & Thermal Effects

<b>Media Temperature</b>	-20°C to +135°C
<b>Ambient Temperature</b>	-20°C to +80°C
<b>Storage Temperature</b>	-20°C to +80°C
<b>Humidity</b>	5% to 95% RH non-condensing
<b>Thermal Zero Shift</b>	<±0.04% /FS/°C
<b>Thermal Span Shift</b>	<±0.02% /°C typical

## Mechanical Stability

See user manual

## PRESSURE RANGES

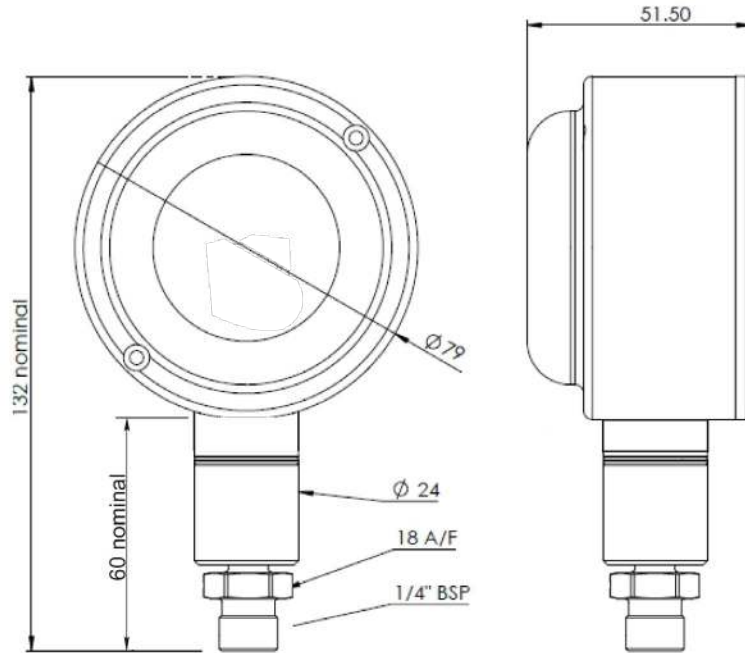
### Pressure Ranges and Passive mV/V Outputs

Nominal Pressure, Gauge	mbar	50	100	250	500	750	1000
<b>Nominal Pressure, Absolute</b>	mbar				500	750	1000
<b>Permissible Overpressure</b>	mbar	2 bar	2 bar	2 bar	5 bar	5 bar	5 bar



## DIMENSIONS

All dimensions are in millimeters.



## ORDERING OPTIONS

Example : IWPTL-G0050-00

<b>Pressure Transducer</b>	See table below
<b>Spare Battery</b>	IBAT-1
<b>Receiver</b>	IoT Gateway, IWR-PORT, IWR-USB, IWR-5, IWR-1
<b>Five Channel Configuration Software*</b>	IWT-IWR Configuration Software (free download*)

Part Number	Pressure Rating	Receiver Output
IWPTL-G0050-00	0 - 50mbar G	1-5Vdc or 4-20mA
IWPTL-G0100-00	0 - 100mbar G	1-5Vdc or 4-20mA
IWPTL-G0250-00	0 - 250mbar G	1-5Vdc or 4-20mA
IWPTL-G0500-00	0 - 500mbar G	1-5Vdc or 4-20mA
IWPTL-G0750-00	0 - 750mbar G	1-5Vdc or 4-20mA
IWPTL-G1000-00	0 - 1000mbar G	1-5Vdc or 4-20mA
IWPTL-A0500-00	0 - 500mbar Abs	1-5Vdc or 4-20mA
IWPTL-A0750-00	0 - 750mbar Abs	1-5Vdc or 4-20mA
IWPTL-A1000-00	0 - 1000mbar Abs	1-5Vdc or 4-20mA

\*Free download user configuration software [here](#)

Made in the UK

Page 3

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, valuation, 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 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](http://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

EUROPE  
+44 (0)1202 897969  
c3w\_sales@sensata.com  
Cynergy3 Components Ltd.  
7 Cobham Road,  
Ferndown Industrial Estate,  
Wimborne, Dorset,  
BH21 7PE, United Kingdom

USA  
+1 310 561 8092 / +1 866 258 5057  
c3w\_sales@sensata.com