

## 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	

## 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

## 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

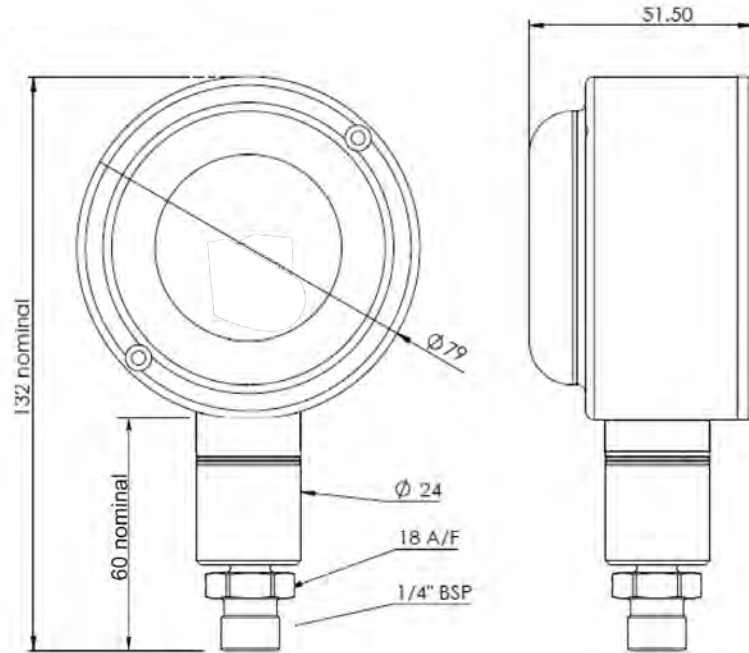
<b>Media Temperature</b>	-20°C to +135°C
<b>Ambient Temperature</b>	-20°C to +80°C
<b>Storage Temperature</b>	-20°C to +80°C
<b>Humidity</b>	5% to 95% RH non-condensing
<b>Thermal Zero Shift</b>	<±0.04% /FS/°C
<b>Thermal Span Shift</b>	<±0.02% /°C typical

## Mechanical Stability

See user manual

## 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

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