

Datasheet 1235243, 1235244, 1235245, 1235246, 1235247,
Stock No.s: 1235248, 1235249, 1235250, 1235251

IWPTL Series - Low Range Industrial Wireless Pressure Transducer



- *Pressure ranges from 0-50mbar to 0-1000mbar gauge*
- *Up to 750m 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 4-20mA receiver outputs*
- *Receiver clean contacts provide process alarm functions*

DESCRIPTION

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 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.

A line-of-sight range of up to 750m 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.

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** – tank farms, process plants, HVAC and building management
- **Service Contract** – temporary installation for servicing and field trials

Pressure Ranges and Passive mV/V Outputs

| | | | | | | |
|---------------------------------|-------|-------|-------|-------|-------|-------|
| Nominal Pressure, Gauge, mbar | 50 | 100 | 250 | 500 | 750 | 1000 |
| Nominal Pressure, Absolute mbar | | | | 500 | 750 | 1000 |
| Permissible Overpressure mbar | 2 bar | 2 bar | 2 bar | 5 bar | 5 bar | 5 bar |

Transmitter Output

| | |
|-------------------------|--------------------------------|
| Transmission Frequency* | 2.4 Ghz |
| Transmit Power | 18 dBm |
| System Channel | User selectable via DIL switch |
| Antenna | Integral Odbi |

*Compliant with EN 300 328, V1.8.1

System Performance

| | |
|---------------------------------------|--------------------------------|
| Accuracy (Non-Linearity & Hysteresis) | <±0.25% / FS (BFSL) |
| Setting Errors (offsets) | Zero & Full Scale, <±0.5% / FS |

Instrument Power Source

| | |
|--------------------|-------------------------------------|
| Battery Type | User replaceable Lithium C cell |
| Battery Life | Five years at 10 second update rate |
| Battery Shelf Life | 10 years |



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Material Specifications

| | |
|-----------------------------|------------------------|
| Pressure Housing | 316 Stainless Steel |
| "O" ring seals | Viton |
| Diaphragm | 316 stainless steel |
| Wireless Enclosure Material | Plastic |
| Weight | 310g including battery |
| Installation position ** | Any |

** Consult installation manual to ensure adequate signal path between transmitter and receiver

Temperatures & Thermal Effects

| | |
|---------------------|---------------------|
| Media Temperature | -20°C to +135°C |
| Ambient Temperature | -20°C to +80°C |
| Storage Temperature | -20°C to +80°C |
| Thermal Zero Shift | <±0.04% /FS/°C |
| Thermal Span Shift | <±0.02% /°C typical |

Receiver Output Signals

| | |
|-----------------------------|---------------------------------|
| Outputs | 1-5V or 4-20mA per channel |
| Single Channel Receiver | 123-5252 (see data sheet) |
| Five Channel receiver | 123-5253 (see data sheet) |
| Alarm Output | 5 Amp rated changeover contacts |
| 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

Mechanical Stability

See user manual

Ordering Codes:-

| | |
|--------------------------------------|-----------------------|
| Pressure Transducer | See table below |
| Spare battery | 596-618, 201-9450 |
| Single Channel Receiver | 123-5252 |
| Five Channel Receiver | 123-5253 |
| Five Channel Configuration Software* | Supplied with 1235253 |
| Swivel Adaptor | IWPT-SA |

| Part Number | Pressure Rating | Receiver Output |
|-------------|------------------|------------------|
| 1235243 | 0 - 50mbar G | 1-5Vdc or 4-20mA |
| 1235244 | 0 - 100mbar G | 1-5Vdc or 4-20mA |
| 1235245 | 0 - 250mbar G | 1-5Vdc or 4-20mA |
| 1235246 | 0 - 500mbar G | 1-5Vdc or 4-20mA |
| 1235247 | 0 - 750mbar G | 1-5Vdc or 4-20mA |
| 1235248 | 0 - 1000mbar G | 1-5Vdc or 4-20mA |
| 1235249 | 0 - 500mbar Abs | 1-5Vdc or 4-20mA |
| 1235250 | 0 - 750mbar Abs | 1-5Vdc or 4-20mA |
| 1235251 | 0 - 1000mbar Abs | 1-5Vdc or 4-20mA |

Mechanical Dimensions

