

IWPTLU Series

Low Range Industrial Wireless Pressure Transducer



- Suitable for liquids and gases
- Pressure ranges from 0-1psi to 0-15psi gauge/abs
- Up to 2500ft 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 IWPTLU 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.

The IWPT sensor can be used with either an IWR-1 or IWR-5 receiver. A line-of-sight range of up to 2500ft 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 – tanks farms, process plants, HVAC and building management
- Service Contract – temporary installation for servicing and field trials

Transmitter Pressure Ranges

Nominal Pressure, Gauge, psi	0.75	1.5	3.75	7.5	11.25	15
Nominal Pressure, Absolute psi				7.5	11.25	15
Permissible Overpressure psi	30	30	30	75	75	75

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

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

ISO9001 CERTIFIED

cynergy3-iwptlu-v4

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Made in the UK

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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
Environmental protection	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
IWR-1	1 off 4-20mA or 1-5Vdc and 1 Relay output
IWR-5	5 off 4-20mA or 1-5Vdc and 1 Relay output
IWR-USB	Displays & Logs data on any PC running IWR-USB software
IWR-PORT	RS232 or RS485 or Ethernet MODBUS Communications. Up to 128 off analogue 4-20mA or Relay outputs can be obtained by fitting extra ISOSLICE I/O modules
IoT-Gateway	Built-in cellular modem allows all data to be sent to remote servers

***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

Environmental Conditions & Thermal Effects

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

Mechanical Stability

See user manual

Ordering Codes:-

Pressure Transducer	See table below
Spare battery	IBAT-1
Single Channel Receiver	IWR-1
Five Channel Receiver	IWR-5
Five Channel Configuration Software	IWR-Set

*Download user configuration software here:-

https://www.cynergy3.com/sites/default/files/IWR-Set_v2.4_installer.zip

Part Number	Pressure Rating	Receiver Output
IWPTLU-GP001-00	0 - 1psi G	1-5Vdc or 4-20mA
IWPTLU-GP002-00	0 - 2psi G	1-5Vdc or 4-20mA
IWPTLU-GP005-00	0 - 2psi G	1-5Vdc or 4-20mA
IWPTLU-GP008-00	0 - 8psi G	1-5Vdc or 4-20mA
IWPTLU-GP010-00	0 - 10psi G	1-5Vdc or 4-20mA
IWPTLU-GP015-00	0 - 15psi G	1-5Vdc or 4-20mA
IWPTLU-AP005-00	0 - 5psi Abs	1-5Vdc or 4-20mA
IWPTLU-AP010-00	0 - 10psi Abs	1-5Vdc or 4-20mA
IWPTLU-AP015-00	0 - 15psi Abs	1-5Vdc or 4-20mA

Mechanical Dimensions

