



IWPT Series

Industrial Wireless Pressure Transducer



TYPICAL APPLICATIONS INCLUDE:-

- Simple cable replacement installation dispense with expensive cable runs
- **Environmental monitoring** pumping stations, sewage plants, water treatment
- **Facilities management** boiler rooms, plant hydraulics, plant pneumatics
- **Asset monitoring** tanks farms, process plants, HVAC and building management
- **Service Contract** temporary installation for servicing and field trials

- Pressure ranges from -1 to +400 bar gauge
- Up to 750m line-of-site range (depending on receiver)
- Piezo-resistive thick film ceramic 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, five and multi-channel channel receivers available (up to 128)
- User-selectable transmission update rates
- Analogue, digital, RS232/485, Ethernet & USB receiver outputs
- Receiver clean contacts provide process alarm functions
- Suitable for liquids and gases

DESCRIPTION

The IWPT 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 any of the range of IWR receivers - thus offering a "plug and play" solution to your pressure measurement applications.

The instrument uses a piezo-resistive ceramic 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 any of the IWR range of receivers. A line-of-sight range of up to 750m is possible depending on the wireless receiver used (refer to specific receiver datasheets for further information).

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

| es | | | | | | | | | |
|--|-----------------------------------|--|--|--|--|--|---|--|--|
| bar | 1 | 2 | 5 | 10 | 20 | 50 | 100 | 250 | 400 |
| bar | -1 to 0 | -1 to 2 | -1 to 5 | -1 to 9 | -1 to 19 | -1 to 24 | | | |
| bar | 2 | 4 | 10 | 20 | 40 | 100 | 200 | 400 | 650 |
| bar | 4 | 5 | 12 | 25 | 50 | 120 | 250 | 500 | 650 |
| | | | | System Per | formance | | | | |
| | 2.4 Ghz using ISM bands 18 dBm | | | Accuracy (Non-Linearity & Hysteresis) | | | <±0.25% / FS (BFSL) | | |
| | | | | Setting Errors (offsets) | | | Zero & Full Scale, $<\pm0.5\%$ / FS | | |
| System Channel User selectable via DIL switch | | | Instrument Power Source | | | | | | |
| Antenna Integral OdBi *Compliant with EN 300 328, V1.8.1 | | | Battery Type | | | User replaceable Lithium C cell | | | |
| | | Battery Life | | | Five years at 10 second update | | | | |
| | | | | | | | rate | | |
| | | | | Battery Shelf Life | | | 10 years | | |
| | bar bar bar | bar 1 bar -1 to 0 bar 2 bar 4 2.4 Ghz usi 18 dBm User select: | bar 1 2 bar -1 to 0 -1 to 2 bar 2 4 bar 4 5 2.4 Ghz using ISM ban 18 dBm | bar 1 2 5 bar -1 to 0 -1 to 2 -1 to 5 bar 2 4 10 bar 4 5 12 2.4 Ghz using ISM bands 18 dBm User selectable via DIL switch | bar 1 2 5 10 bar -1 to 0 -1 to 2 -1 to 5 -1 to 9 bar 2 4 10 20 bar 4 5 12 25 System Per 2.4 Ghz using ISM bands 18 dBm Setting Erro User selectable via DIL switch Integral OdBi Battery Type Battery Life | bar 1 2 5 10 20 bar -1 to 0 -1 to 2 -1 to 5 -1 to 9 -1 to 19 bar 2 4 10 20 40 bar 4 5 12 25 50 System Performance 2.4 Ghz using ISM bands 18 dBm Setting Errors (offsets) User selectable via DIL switch Integral OdBi Battery Type Battery Life | bar 1 2 5 10 20 50 bar -1 to 0 -1 to 2 -1 to 5 -1 to 9 -1 to 19 -1 to 24 bar 2 4 10 20 40 100 bar 4 5 12 25 50 120 System Performance Accuracy (Non-Linearity & Hysteresis) Setting Errors (offsets) User selectable via DIL switch Integral OdBi Instrument Power Source Battery Type Battery Life | bar 1 2 5 10 20 50 100 bar -1 to 0 -1 to 2 -1 to 5 -1 to 9 -1 to 19 -1 to 24 bar 2 4 10 20 40 100 200 bar 4 5 12 25 50 120 250 System Performance 2.4 Ghz using ISM bands Accuracy (Non-Linearity & Hysteresis) <±0.25 | bar 1 2 5 10 20 50 100 250 bar -1 to 0 -1 to 2 -1 to 5 -1 to 9 -1 to 19 -1 to 24 bar 2 4 10 20 40 100 200 400 bar 4 5 12 25 50 120 250 500 System Performance 2.4 Ghz using ISM bands Accuracy (Non-Linearity & Hysteresis) <±0.25% / FS (BFS) |



cynergy3-iwpt-v4







IWPT Series

Industrial Wireless Pressure Transducer

Material Specifications

Pressure Housing 316 Stainless Steel

"0" ring seals Viton

Diaphragm Ceramic Al₂O₃ 96%

Wireless Enclosure Material **Plastic**

Weight 310g including battery

**Installation position

Environmental protection Designed to IP68 (not recommended for

submersion due to signal loss)

Receiver Output Signals

| Receiver Part Number | Receiver Out | puts |
|----------------------|--------------|------|
|----------------------|--------------|------|

IWR-1 1 off 4-20mA or 1-5Vdc and 1 Relay output 5 off 4-20mA or 1-5Vdc and 1 Relay output IWR-5

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

***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 +50°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

Receivers -See IWR-1, IWR-5, IWR-PORT

and IWR-USB data sheets IWR-Set (free download*)

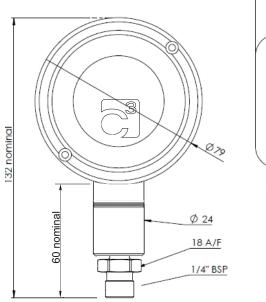
Five Channel Configuration Software

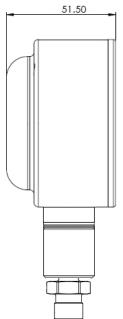
IWPT-SA Swivel Adaptor

*Download user configuration software here:https://www.cynergy3.com/sites/default/files/IWR-Set_v2.4_installer.zip

| Part Number | Pressure Rating |
|---------------|-----------------|
| IWPT-G1000-00 | 0 - 1 Bar G |
| IWPT-G6000-00 | 0 - 6 Bar G |
| IWPT-GM1P9-00 | -1 to +9 Bar G |
| IWPT-G1002-00 | 0 - 10 Bar G |
| IWPT-G1602-00 | 0 - 16 Bar G |
| IWPT-C0184-00 | -1 to +24 Bar G |
| IWPT-G2502-00 | 0 - 25 Bar G |
| IWPT-G4002-00 | 0 - 40 Bar G |
| IWPT-G1003-00 | 0 - 100 Bar G |
| IWPT-G2503-00 | 0 - 250 Bar G |
| IWPT-G4003-00 | 0 - 400 Bar G |

Mechanical Dimensions





ISO9001certified

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