

IWPT Series

Industrial Wireless Pressure Transducer



- 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 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
- 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 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 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 should be used with either an IWR-1 or IWR-5 receiver. 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** – 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

Transmitter Pressure Ranges

| | | | | | | | | | | |
|--------------------------|-----|---------|---------|---------|---------|----------|----------|-----|-----|-----|
| Nominal Pressure, Gauge, | bar | 1 | 2 | 5 | 10 | 20 | 50 | 100 | 250 | 400 |
| Compound range, Gauge | bar | -1 to 0 | -1 to 2 | -1 to 5 | -1 to 9 | -1 to 19 | -1 to 24 | | | |
| Permissible Overpressure | bar | 2 | 4 | 10 | 20 | 40 | 100 | 200 | 400 | 650 |
| Burst Pressure | bar | 4 | 5 | 12 | 25 | 50 | 120 | 250 | 500 | 650 |

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

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ISO9001 CERTIFIED

IWPT 2018

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 |



Made in the UK

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Material Specifications

| | |
|-----------------------------|--|
| Pressure Housing | 316 Stainless Steel |
| "O" ring seals | Viton |
| Diaphragm | Ceramic Al ₂ O ₃ 96% |
| 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 (requires either IWR-1 or IWR-5 receiver)

| | |
|-----------------------------|---------------------------------|
| Outputs | 1-5V or 4-20mA per channel |
| Single Channel Receiver | IWR-1 (see data sheet) |
| Five Channel receiver | IWR-5 (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

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 |

Mechanical Stability

See user manual

Ordering Codes:-

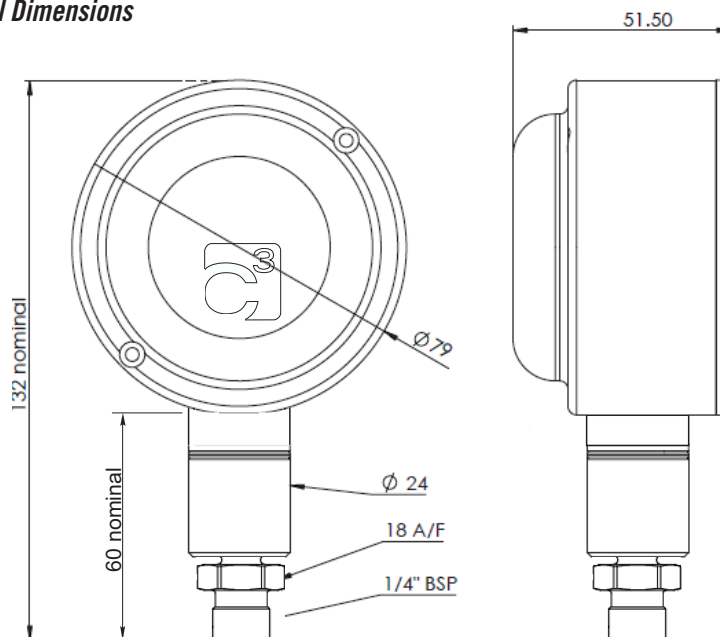
| | |
|-------------------------------------|--------------------------|
| Pressure Transducer | See table below |
| Spare battery | IBAT-1 |
| Single Channel Receiver | IWR-1 |
| Five Channel Receiver | IWR-5 |
| Five Channel Configuration Software | IWR-Set (free download*) |
| Swivel Adaptor | IWPT-SA |

*Download user configuration software here:-

https://www.cynergy3.com/sites/default/files/IWR-Set_v2.1_installer_0.exe

| Part Number | Pressure Rating | Receiver Output |
|---------------|-----------------|------------------|
| IWPT-G1000-00 | 0 - 1 Bar G | 1-5Vdc or 4-20mA |
| IWPT-G6000-00 | 0 - 6 Bar G | 1-5Vdc or 4-20mA |
| IWPT-GM1P9-00 | -1 to +9 Bar G | 1-5Vdc or 4-20mA |
| IWPT-G1002-00 | 0 - 10 Bar G | 1-5Vdc or 4-20mA |
| IWPT-G1602-00 | 0 - 16 Bar G | 1-5Vdc or 4-20mA |
| IWPT-C0184-00 | -1 to +24 Bar G | 1-5Vdc or 4-20mA |
| IWPT-G2502-00 | 0 - 25 Bar G | 1-5Vdc or 4-20mA |
| IWPT-G4002-00 | 0 - 40 Bar G | 1-5Vdc or 4-20mA |
| IWPT-G1003-00 | 0 - 100 Bar G | 1-5Vdc or 4-20mA |
| IWPT-G2503-00 | 0 - 250 Bar G | 1-5Vdc or 4-20mA |
| IWPT-G4003-00 | 0 - 400 Bar G | 1-5Vdc or 4-20mA |

Mechanical Dimensions



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