

## 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

## SPECIFICATIONS

#### Transmitter Output

<b>*Transmission Frequency</b>	2.4 Ghz using ISM bands
<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 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 adapter 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 500 m is possible depending on the wireless receiver used (refer to specific receiver data sheets for further information).

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

#### Features

- Pressure ranges from -1 to +400 bar gauge
- Up to 500 m 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
- Analog, digital, RS-232/485, Ethernet & USB receiver outputs
- Receiver clean contacts provide process alarm functions
- Suitable for liquids and gases

#### 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>	Ceramic Al <sub>2</sub> O <sub>3</sub> 96%
<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.	

## 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

## 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	

## Environmental Conditions & Thermal Effects

<b>Media Temperature</b>	-20°C to +135°C
<b>Ambient Temperature</b>	-20°C to +50°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



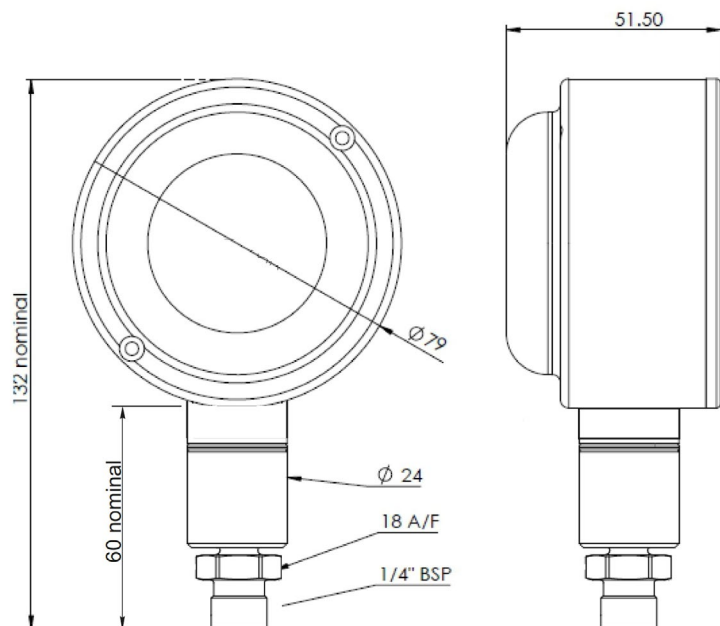
## Transmitter

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



## DIMENSIONS

All dimensions are in millimeters.



## ORDERING OPTIONS

Example : IWPT

<b>Pressure Transducer</b>	See table below
<b>Spare Battery</b>	IBAT-1
<b>Receivers</b>	See IoT Gateway, IWR-1, IWR-5, IWR-PORT and IWR-USB data sheets
<b>Five Channel Configuration Software*</b>	IWR-Set
<b>Swivel Adapter</b>	IWPT-SA

\*Download free user configuration software here:

[https://www.cynergy3.com/sites/default/files/IWR-Set\\_v2.4\\_installer.zip](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

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Page 3

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