



# **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, R\$232/485, 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.

TransmitterPressure Rang	es									
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		System Performance								
*Transmission Frequency	nsmission Frequency 2.4 Ghz using ISM bands			ds	Accuracy (Non-Linearity & Hysteresis)			<±0.25% / FS (BFSL)		
Transmit Power		18 dBm User selectable via DIL switch			Setting Errors (offsets)			Zero & Full Scale, $<\pm0.5\%$ / FS		
System Channel					Instrument Power Source					
Antenna	Integral OdBi			Battery Type			User replaceable Lithium C cell			
*Compliant with EN 300 328, V1.8.1					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

"0" ring seals Viton

Diaphragm Ceramic Al<sub>2</sub>O<sub>3</sub> 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**

IoT-Gateway

#### **Receiver Part Number Receiver Outputs**

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

Displays & Logs data on any PC running IWR-USB software **IWR-USB 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

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

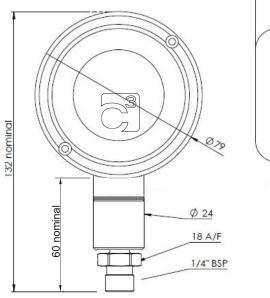
**IWPT-SA** Swivel Adaptor

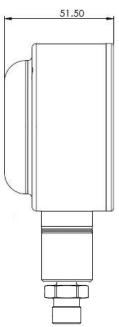
\*Download user configuration software here:-

https://www.cynergy3.com/sites/default/files/IWR-Set\_v2.1\_installer\_0.exe

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

<sup>\*\*</sup> Consult installation manual to ensure adequate signal path between transmitter and receiver