| IWPT SERIES

INDUSTRIAL WIRELESS PRESSURE TRANSDUCER

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 750m 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.

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

Features

- 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

SPECIFICATIONS

Transmitter Output

***Transmission Frequency**	2.4 Ghz using ISM bands
Transmit Power	18 dBm
System Channel	User selectable via DIL switch
Antenna	Integral 0dBi

*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

Material Specifications

Pressure Housing	316 Stainless Steel
"O" Ring Seals	Viton
Diaphragm	Ceramic Al_2O_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.

Instrument Power Source

Battery Type	User replaceable Lithium C cell
Battery Life	Five years at 10 second update rate
Battery Shelf Life	10 years

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	-20ºC to +135ºC
Ambient Temperature	-20ºC to +50ºC
Storage Temperature	-20ºC to +80ºC
Humidity	5% to 95% RH non-condensing
Thermal Zero Shift	<±0.04% /FS/ºC
Thermal Span Shift	<±0.02% /ºC typical

Mechanical Stability

See user manual

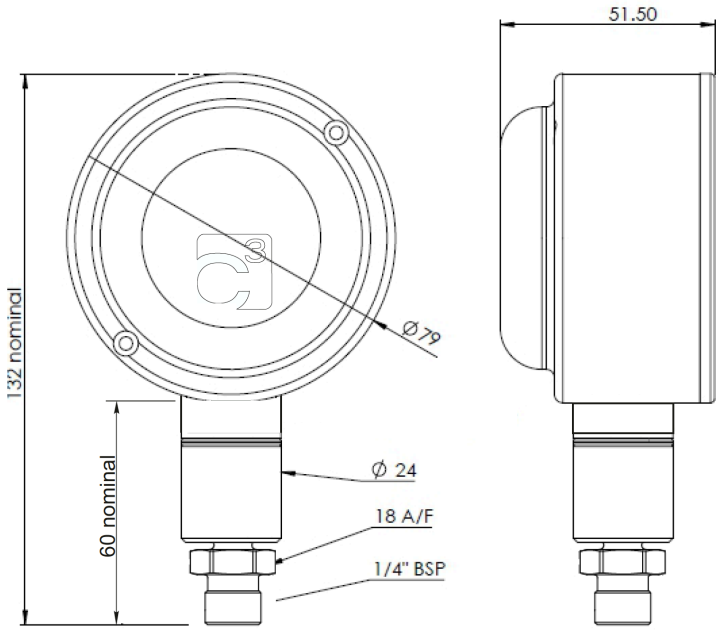
PRESSURE RANGES

Transmitter

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

DIMENSIONS

All dimensions are in millimeters.



ORDERING OPTIONS

Example : IWPT

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

*Download free 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

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