

## Wireless Pulse Input Transmitter Module



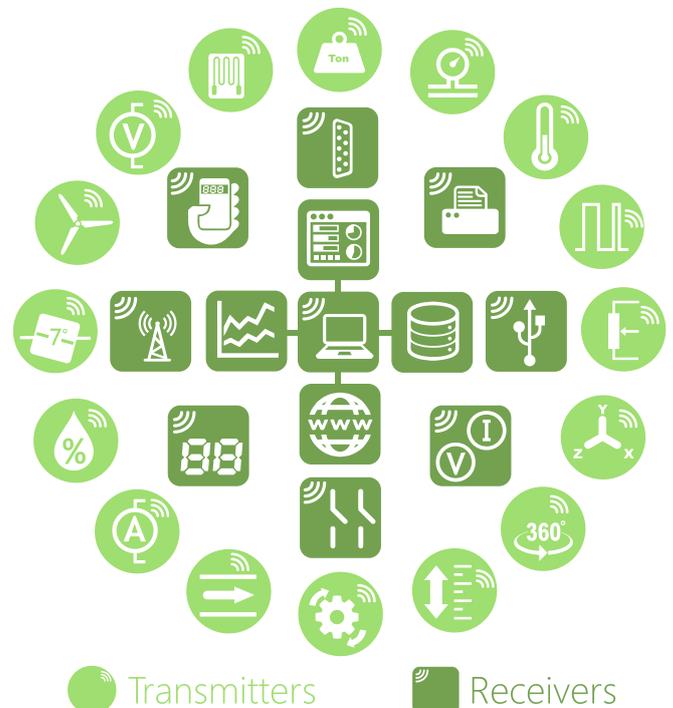
### Introduction

The T24-PA transmitter module collects and processes pulse related measurements, such as speed of rotation, proximity, flow and count, forming part of the T24 modular telemetry system. The data transmitted by the T24-PA can be received by multiple T24 receivers that include displays, handheld readers, analogue outputs, relay modules and computer interfaces.

T24 transmitters have been designed for battery operation and support an ultra low-power sleep mode whilst offering class leading wireless coverage and range. Configurable transmission rates from once per minute to 200 per second cope with a wide range of measurement and monitoring applications. A choice of enclosures enabling battery connection, field connectivity and environmental sealing up to IP67 ensure these modules provide a flexible solution to your wireless sensor requirements.

The T24-PA provides a range of excitations (3,5,12 volts). Inputs accept volt free contacts, open collector, 5 V logic and quadrature.

### T24 System Overview

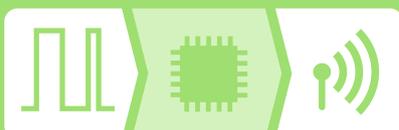


T24 Wireless Telemetry Sensor System is a modular wireless solution for industrial sensor applications.

High accuracy, high quality measurement is interfaced with simple yet powerful configuration and monitoring software.

### Features

- Simple wireless configuration and calibration
- Wireless range up to 800 m (2,600 ft)
- Low power mode for long battery life
- Miniature PCB for OEM integration
- Free Visualisation software
- Configurable on-board pull up or pull down resistor
- Range of excitation voltages of 3, 5, 12 Volts
- Selectable measurements:
  - Frequency
  - Count
  - Quadrature
  - Mark (space)
  - Digital state
  - RPM
  - Interval



## Specifications

### Measurement Specifications

|  |                           |
|--|---------------------------|
| Period input range                       | 333 $\mu$ S to 2 s        |
| Frequency input range                    | 0.5 to 3,000 Hz           |
| RPM input range (1 pulse / rev)          | 30 to 180,000 RPM         |
| Volt free input pull-up resistor         | 56 k $\Omega$             |
| Pulse input voltage range                | 1.2 V to 12 V             |
| Accuracy as % input error at 1 Hz (max)  | 0.15%                     |
| Accuracy as % input error at 1 kHz (max) | 0.25%                     |
| Internal resolution                      | 0.25 $\mu$ s              |
| Reset count input                        | volt free                 |
| Reset count input pull-up resistor       | 20 to 50 k $\Omega$       |
| Excitation available                     | 3,5,12 Vdc @ 25 mA        |
| Transmission rates                       | From 5 ms to 1 per minute |

### Battery Life

|   |            |
|---|------------|
| Transmitting results at 3 per second , no excitation required |            |
| Pair AA cells constantly on                                   | 1 month    |
| Pair AA cells 12 sessions per day of 5 mins                   | 2 years    |
| Pair DD cells constantly on                                   | 4.5 months |
| Pair DD cells 12 sessions per day of 5 mins                   | >9 years   |

### Power Supply

|                     |                |
|---------------------|----------------|
| ACMi and OEM module | 2.1 to 3.6 Vdc |
| ACM                 | 5 to 18 Vdc    |

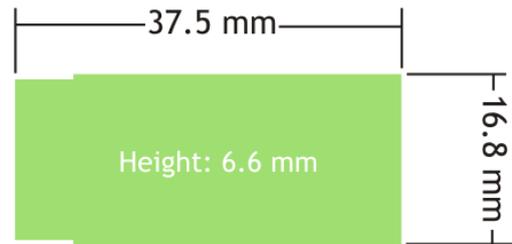
### Radio

|                 |                            |
|-----------------|----------------------------|
| Radio type      | Licence exempt transceiver |
| Radio frequency | 2.4 GHz                    |
| Transmit power  | 10 mW                      |
| Range           | Up to 800 m                |

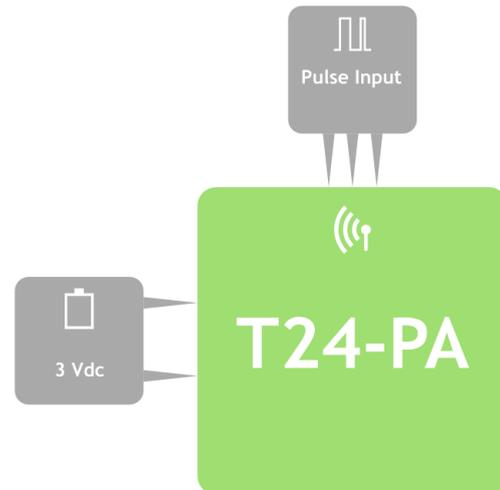
### Environmental

|  |                        |
|--|------------------------|
| Operating temperature range              | -20 to 55 $^{\circ}$ C |
| Storage temperature range (no batteries) | -40 to 85 $^{\circ}$ C |
| Maximum humidity                         | 95% non-condensing     |
| IP rating (ACM and ACMi)                 | IP67/Nema4             |

## Mechanical



## Electrical



## Order Codes

### T24-PAe

Wireless pulse input OEM transmitter module for external antenna

### T24-PAi

Wireless pulse input OEM transmitter module with integral antenna

### T24-ACM-PA

Wireless pulse input transmitter module in IP67 enclosure supporting two D batteries or external power supply

### T24-ACMi-PA

Wireless pulse input transmitter module in IP67 enclosure for two AA batteries

### T24-ACMm-PA

Wireless pulse input transmitter module in miniature IP50 enclosure

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