



APPLIED MEASUREMENTS LTD.
Transducer Specialists...

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T24-PA Wireless Pulse Input Telemetry Acquisition Module

Key Features:

- Simple Wireless Configuration and Calibration
- Up to 800 metre Range
- Wireless Operation using a 2.4 GHz Worldwide Licence Exempt Radio Frequency
- Pulse Input for Hz, RPM and Time Measurement
- 0.5Hz to 3000Hz Input Range
- Very Low Power Consumption
- Miniature PCB for OEM Operation
- Free Visualisation Software
- 3 Years Warranty



The [T24-PA Wireless Pulse Input Telemetry Acquisition Module](#) collects high accuracy pulse measurements such as rotational speed, proximity, flow and count, from any sensor or device that has a pulsed output for instance an optical or hall effect type RPM sensor.

The data transmitted can be received by multiple T24 receivers including displays, handheld readers, analogue outputs, relay modules and computer interfaces. With transmission ranges up to 800 metres.

The T24-PA acquisition module can be integrated into your sensor or has the option of being mounted into a choice of enclosures - T24-ACM (2 x DD batteries), T24-ACMi (2 x AA batteries) and the miniature T24-ACMm. See our [range of T24 wireless telemetry instrumentation](#).

Industries:

- Civil Engineering
- Lifting & Handling
- Waste Management
- Alternative Energy
- Construction
- Automotive
- Silo & Weighing Industry
- Marine

Applications:

- Wireless Monitoring of Bridge Structures
- Wireless Monitoring of Anchor Loads
- Wireless Bridge Surveying via GPRS
- Wireless Truck Load Weight Monitoring
- Wireless Skip Weighing System
- Wireless Platform Weighing with Ticket Printing
- Wireless Monitoring of Building Foundations
- Wireless Telemetry Strain Measurement of Wind Turbines
- Remote Load Monitoring of Construction Shoring Struts
- Force Measurement in Formula Racing
- Wireless Silo Weighing
- Superyacht Sail-Track Development
- Telemetry Monitoring on High Altitude Roads
- Radio Telemetry Monitoring of Underwater Turbine
- Wireless Mooring Rope Monitoring
- Wireless Valve Control
- Torque Measurement Using Wireless Technology
- Measuring the Power Output of a Motor



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Specification:

Radio	Min	Typical	Max	Units
Licence		Licence Exempt		
Modulation Method		MS (QPSK)		
Radio Type		Transceiver (2 way)		
Data Rate		250		K bits / second
Radio Frequency	2.4000		2.4835	GHz
Power		10		mw
Range*			800	Metres
Channels (DSSS)		15		

*Tests conducted in an open field site with the transmitter at the top of a 3m pole. The receiver was mounted 1.5m off the ground.

T24-PA						
Measurement	Min	Typical	Max	Units		
Period Input Range	333 μ S to 2 s					
Frequency Input Range	0.5	-	3,000	Hz		
RPM input range (1 pulse / rev)	30	-	180,000	RPM		
Volt free input pull-up resistor		42		k Ω		
Pulse Input Voltage Range	0.8		6	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	0.1	μ		
Reset Count Input	Volt Free					
Reset Count Input Pull-Up Resistor	20		50	k Ω		
Excitation Available	5 Vdc @ 40mA					
Transmission Rates	From 5 ms to 1 day					
Power Supply						
ACMi and OEM Module	2.1		3.6	Vdc		
ACM	5		18	Vdc		
Battery Life - Transmitting results at 3 per second, no excitation required		Usage			Battery Life	
Pair AA cells	Constantly on		1 month			
Pair AA cells	12 sessions per day of 5 minutes		2 years			
Pair DD cells	Constantly on		4.5 months			
Pair DD cells	12 sessions per day of 5 minutes		>9 years			
Environmental						
Operating Temperature Range	-20		+55	$^{\circ}$ C		
Storage Temperature Range (no batteries)	-40		+85	$^{\circ}$ C		
Humidity	0		95	%RH		
IP Rating (ACM and ACMI)	IP67/Nema4					



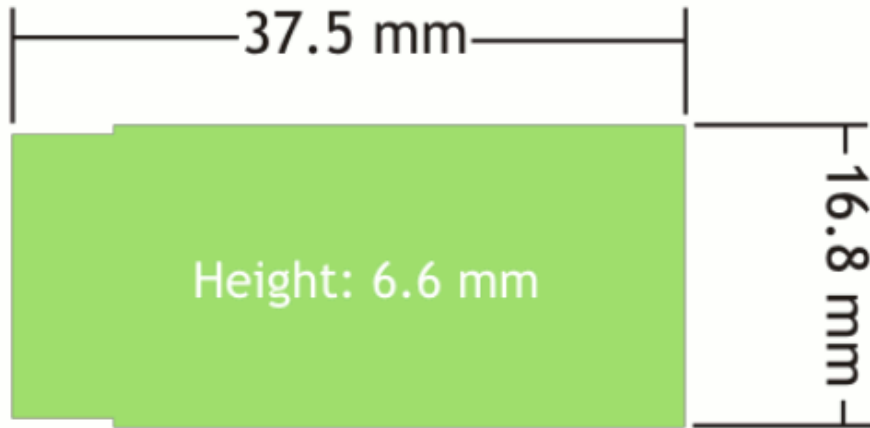
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Dimensions (mm):



Ordering Codes:

T24-PA	Pulse Input Telemetry Acquisition Module
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Associated Products:



[T24-ACM Wireless Sensor Module Enclosure with External Power](#)



[T24-ACMi Mini Sensor Enclosure](#)



[T24-ACMm Mini Data Transmitter Case for Strain, 0-20 mA, 0-10 V](#)



[T24-BSi Radio Telemetry Base Station with USB, RS485 or RS232](#)



[T24-BSu Wireless Radio Telemetry USB Base Station](#)



[T24-HA Radio Telemetry Handheld Display up to 12 Inputs](#)



[T24-HS Radio Telemetry Portable Display for 1 Wireless Sensor](#)



[T24-HR Radio Telemetry Handheld for Multiple Transmitter Modules](#)



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Associated Products Continued:

Every T24 transmitter module can be ordered in one of three IP rated enclosures ACM, ACMi, and ACMm, giving you:

- Power Supply
- Water and Dust Protection
- Field Connectivity
- Ready-Made Mounting Solution

Enclosure	ACM		ACMi		ACMm		
Wireless Range / m	800m (2,600 ft)				500m (1,600 ft)		
Power Supply	3-18 Vdc or 2xD cell		3 Vdc (2xAA)		3 Vdc (2xAAA with BB1)		
Battery Life at 1 transmission per second*	1 year		5 months		2 months		
Antenna	ANTA		ANTA		PCB Printed		
Radio Frequency	2.4 GHz						
Operating Temperature /°C	-20 to +55		-20 to +55		-40 to +80		
Environmental Protection	IP67				IP50		
Module Size / mm	164 x 84 x 57		80 x 62 x 34		76 x 35 x 20		
Software & Configuration	T24 Toolkit & T24LOG100						
Input Modules (determined by order code)	SA Strain	SAf Strain (2kHz)	IA Current	VA Voltage	TA Temperature	PA Pulse	RA Potentiometer
Order Codes:	T24-ACM-SA T24-ACMi-SA T24-ACMm-SA	T24-ACM-SAf T24-ACMi-SAf T24-ACMm-SAf	T24-ACM-IA T24-ACMi-IA T24-ACMm-IA	T24-ACM-VA T24-ACMi-VA T24-ACMm-VA	T24-ACM-TA T24-ACMi-TA T24-ACMm-TA	T24-ACM-SA T24-ACMi-SA T24-ACMm-SA	T24-ACM-RA T24-ACMi-RA T24-ACMm-RA