



APPLIED MEASUREMENTS LTD.
Transducer Specialists...

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X24-SAe ATEX Wireless OEM Transmitter Module

Key Features:

- Approved for ATEX / IECEx Zones 1 and 2, Zones 21 and 22
- PCB Module Ideal for OEM Sensor Manufacturers
- High Resolution Ratio-Metric/Bridge Measurements
- Extremely Low Temperature Drift
- High Transmission Rates up to 200 Hz
- Up to 1 Part in 400,000 (18.75 bits) Noise Free Resolution
- Fantastic Transmission Range – Up to 800 metres!
- For use with all T24 and X24 Modules
- Facilitates Construction of Certified Load Cells and Products
- Uses Energizer L91 Batteries
- Up To 30 Days Continuous Operation
- Operating Temperature -20 °C to +50 °C



The X24-SAe ATEX wireless OEM transmitter module is an intrinsically safe bare PCB board in OEM format designed to measure strain input in ATEX / IECEx zones 1 and 2 and zones 21 and 22. The data is then transmitted to X24 or T24 wireless telemetry receivers, such as the X24-HD ATEX wireless portable display.

It is approved to use in hazardous ATEX / IECEx gas zones 1 and 2 and dust zones 21 and 22. Plus, thanks to its component approvals the X24-SAe wireless ATEX OEM transmitter module facilitates holders of a QAN or a QAR to “fast track” the design and manufacture of their own ATEX/IECEx products, through the equipment certification process using a notified body such as BASEFA, CSA group or UL.

It has a high accuracy ratio-metric input allowing for calibration and linearisation for pressure, force, torque and weight measurement in explosive atmospheres. Superior accuracy is also ensured with its nine point linearisation and low noise, delivering high quality measurements from a wide range of strain bridge transducers.

The ATEX wireless OEM transmitter long transmission range of up to 1/2 mile (800m) comes from its omnidirectional antenna, removing the need to house a separate external antenna. The X24-SAe wireless ATEX OEM transmitter module uses easily available Energizer L91 batteries which have a battery life of up to 5 years, with continuous operation of 30 days. It has an operating temperature of -20°C to +50°C and a storage temperature -40°C to +85°C.

The X24-SAe ATEX wireless OEM transmitter module can drive up to four 350 ohm strain gauges bridges attached in parallel.

For a wireless ATEX transmitter module in an industrial enclosure please see our ATEX Wireless Transmitter Module X24-ACMi-SA, which comes in an IP67 immersion protected enclosure.



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Industries:

- Petrochemical
- Industrial Processing
- Hazardous Environments
- 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

Specification:

Measurement Specifications		Units
Strain Gauge Excitation System	4	wire
Strain Gauge Excitation	5	Vdc
Strain Gauge Resistance (min)	85	Ω
Strain Gauge Sensitivity (max)	± 3.1	mV/V
Offset Temperature Stability (max)	4	ppm/ $^{\circ}$ C
Gain Temperature Stability (max)	5	ppm/ $^{\circ}$ C
Non Linearity Before Linearisation (max)	25	ppm of FR
Internal Resolution/Bits	16,000,000 / 24	
Noise Free Resolution at 1 Sample Per Second	400,000 / 18.75	
Transmission Rates	From 5ms to 1 day	
Environmental Specifications		
Operating Temperature Range	-20 to +50	$^{\circ}$ C
Storage Temperature Range	-40 to +85	$^{\circ}$ C
Humidity	0 to 95	%RH
Radio		
Radio Type	License Exempt Transceiver	
Radio Frequency	2.4	GHz
Transmit Powre	10	mW
Range	up to 800	m
Power Supply		
Power Supply Voltage	2.1 to 3.6	Vdc
Power supply must be capable of supplying 300 mA for 250 μ s (required on start-up, waking and during low power operation).		

Ordering Codes:

X24-SAe | ATEX wireless OEM transmitter module



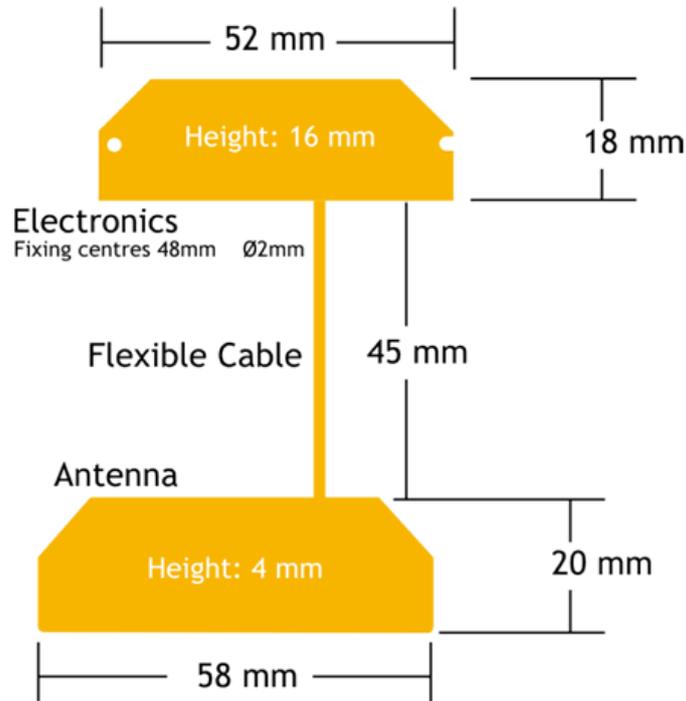
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Dimensions (mm):



Associated Products:



[X24-ACMi-SA ATEX Wireless Transmitter Module](#)



[X24-HD ATEX Wireless Portable Display](#)



[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](#)