



X24-ACMI-SA



ATEX / IECEx Telemetry Strain Transmitter Module



Introduction

ATEX / IECEx telemetry transmitter module measures strain input and periodically transmits data for receipt by X24 or T24 receivers.

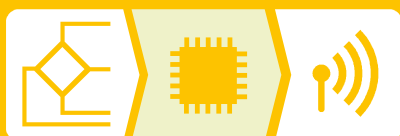
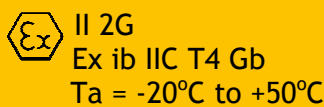
High accuracy ratio-metric input allows for calibration and linearisation for pressure, force, torque and weight measurement in explosive atmospheres.

Housed in an environmentally sealed IP67 enclosure with battery holder for two Lithium Energiser L91 AA batteries.

This flexible transmitter supports a wide range of bridge sensors and is ideal for places that are difficult for a wired connection.

Product Features

- **Intrinsically Safe Electronics**
Approved for use in explosive atmospheres Zone 1, Zone 2
- **Long Range Transmission**
Wireless range of up to 800 m (½ mile)
- **High accuracy**
Extremely low temperature drift
High resolution ratiometric / bridge measurement
- **Power Efficient**
Long battery life of up to 5 years
- **High Quality Measurement**
Calibration and linearisation to engineering units
- **Cross Compatible**
Operates with X24 and T24 receivers



Accessories



X24-HD
ATEX/IECEx Handheld Telemetry Display



X24-SAe
ATEX/IECEx Telemetry Strain Transmitter OEM Module

Extend Your Capabilities with our T24 Wireless Modular System



Adaptable and expandable system for safe zones. Certified transmitters send to 'safe zone' base stations, gateways, analogue and digital outputs.

Find out more at wirelessensorsystem.com

Specifications

Specification with 1000R bridge, 2.5mV/V, at 3V supply at 25°C

Measurement Specifications

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 or 20mV/V
Offset temperature stability (max)	4 ppm/°C
Gain temperature stability (max)	5 ppm/°C
Non linearity before linearization (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 °C
Storage Temperature	-40 to +85 °C
Humidity	0 to 95 %RH

Radio

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

Power Supply

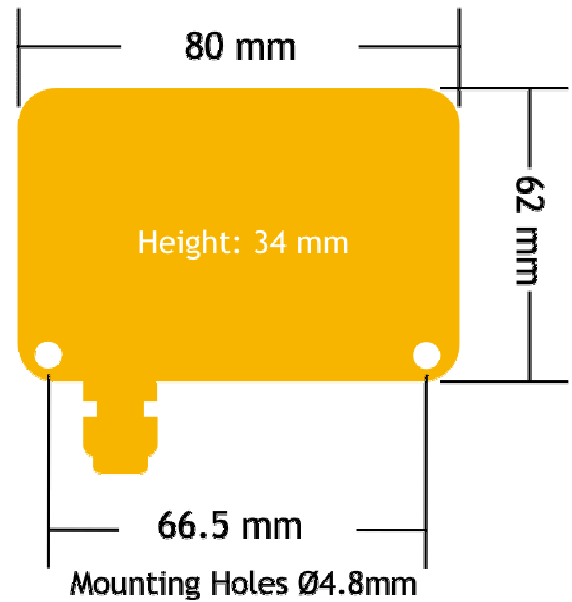
Power Supply Voltage	2.1 to 3.6 Vdc
*Must use Energizer L91 batteries	

Battery Life in Low Power Mode with 350R Load Cell

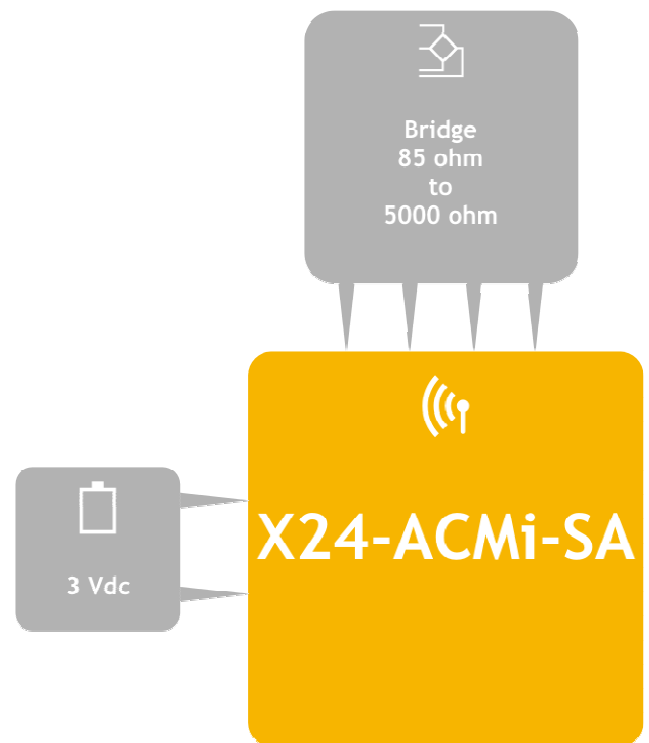
Pair Energizer L91 Lithium AA cells:	Battery Life:
Constantly on transmitting at 3Hz	30 days
12 sessions per day of 5 minutes at 3Hz	2 years
Constantly on transmitting every 20 secs	5 years

*Calculate your battery life: www.mantracourt.net/T24BattCalc.asp

Mechanical



Electrical



Order Codes

X24-ACMi-SA

ATEX / IECEx telemetry Strain Transmitter Module

Manual Reference: 517-938

Mantracourt Electronics Ltd
The Drive, Farringdon
Exeter, Devon,
EX5 2JB

Tel: +44 (0)1395 232020
Email: sales@mantracourt.com
mantracourt.com

