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Modul de achizitie wireless T24-SA



Modul de achizitie wireless T24-SA Producator: LCM Systems T24-SA Wireless Telemetry Strain Gauge Load Cell Acquisition Module

Descriere

T24-SA Wireless Telemetry Strain Gauge Load Cell Acquisition Module

Features :

- Very small size - 18 x 40 x 7mm including signal conditioning module
- Worldwide license exempt 2.4 GHz radio
- 2 way radio system for data integrity
- Remote power on/off (sleep/wake)
- 120 metre (400 feet) range maximum
- Battery life up to 5 years in low power mode
- Configured and calibrated via PC using a base station and Telemetry Toolkit software provided
- Internal or external antenna option
- Can interface with a wide range of products from the T24 wireless product range

The T24-SA is a high performance strain gauge to radio telemetry converter module, offering precision measurement with high performance two-way telemetry. It is used in wireless load, force, pressure and torque applications. This new design offers battery life of up to 5 years with lithium cells.

The licence-free 2.4GHz radio provides a line-of-sight communication range of 120 metres (400 feet), extendable by the use of a repeater. The use of the latest DSSS radio technology minimises local radio interference and ensures data integrity and security.

The wide operating temperature range and the robust technology ensures that the module is not susceptible to harsh physical or electrical environments.

LCM Systems can supply the T24 products integrated into various sensors, to form a wireless sensor system. There are several standard products which utilise thye T24 range, including the TELSHACK range and RILL ranges.

Please contact LCM’s technical department to discuss your wireless load cell requirements.

Specifications - - General Radio

Approvals

Measurement				
Parameter	Min	Typical	Max	Units
Strain Gauge Excitation System		4-wire		
Strain Gauge Excitation Voltage	4.5	5	5.25	Vdc
Strain Gauge Sensitivity (FR)	3.2	3.3	3.4	±mV/V
Offset Temperature Stability		1	4	ppm/°C
Gain Temperature Stability		3	5	ppm/°C
Offset Stability with Time		20	80	ppm of FR (1)
Non-Linearity before Linearisation		5	25	ppm of FR
Noise Free where sample time <10mS		50,000/15.5		Resolution/Bits
Noise Free where sample time <50mS		65,000/16		Resolution/Bits
Noise Free where sample time <100mS		150,000/17.25		Resolution/Bits
Noise Free where sample time <1000mS		250,000/18		Resolution/Bits
Noise Free where sample time >1000mS		400,000/18.75		Resolution/Bits
(Specification with 1000ohm bridge, 2.5mV/V, at 3V supply and at +25°C)				
Electrical/Environmental				
Parameter	Min	Typical	Max	Units
Power Supply Voltage	2.1	3	3.6	Vdc
Power Supply Ripple			50	mV ac pk-pk
Operating Temperature Range	-40		+85	°C
Storage Temperature	-40		+85	°C
Humidity	0		95	%RH

Measurement

Electrical/Environmental