



The nanoDAQ-LTC is a further development of the nanoDAQ-LT series.

The LTC is designed for applications where small size and light weight are a priority. The LTC doesn't sacrifice any of its features and retains its class leading performance.

nanoDAQ-LTC

8 and 16 Channel Ultra Miniature Digital Pressure Scanner

- **8 and 16 channel Intelligent pressure scanner module with engineering unit output.**
- **User selectable absolute or differential measurement.**
- **Up to 0.04% FS accuracy output.**
- **Ultra-miniature design - smallest intelligent pressure scanner available.**
- **Thermally compensated from 0 to 90°C (-20 to 90°C on request)**
- **Light Weight - 17g.**
- **Full configuration and output over CAN.**
- **Enhanced diagnostic information over CAN.**
- **Rugged enclosure for on-vehicle applications. Sealed to IP67**
- **Fully configurable over Ethernet with embedded web server (using optional daughter board).**

The nanoDAQ-LTC is primarily a CAN device and as such, it can be fully configured over CAN. It retains the ability to add Ethernet communications (via optional daughter board) and therefore access to the inbuilt web server. This functionality is required during the in-depth calibration processes that take place during manufacture.

The nanoDAQ-LTC is a fully configurable smart pressure scanner that will output absolute or differential pressure data in engineering units over CAN.

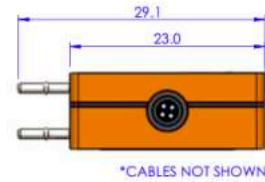
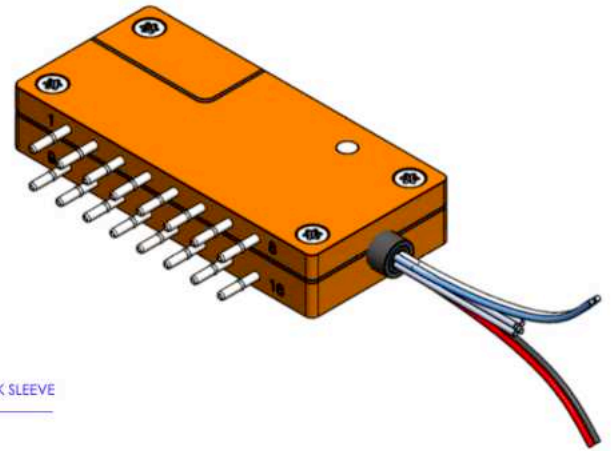
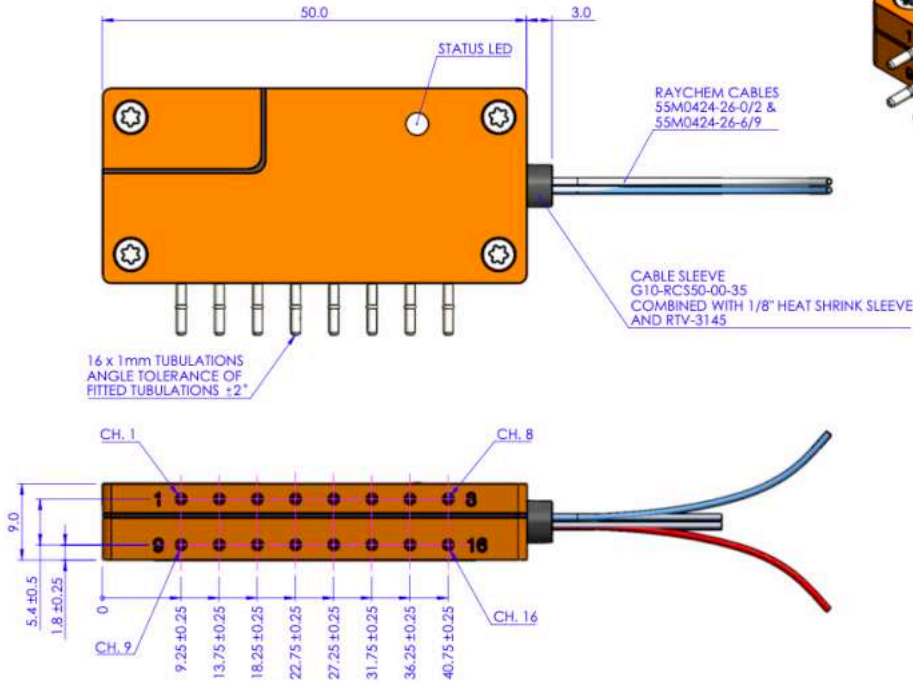
The nanoDAQ-LTC-16 makes use of 16 absolute transducers which are thermally compensated and conditioned to provide 16 absolute or 15 differential measurements relative to one (selectable) reference port. For the nanoDAQ-LTC 8, 8 absolute or differential channels are available, the differential measurements being relative to the 9 reference channel.

The nanoDAQ-LTC features some advanced diagnostic information available over CAN. It will broadcast a status message every 500ms containing such information as firmware version, serial number, hardware version, detected CAN errors etc.

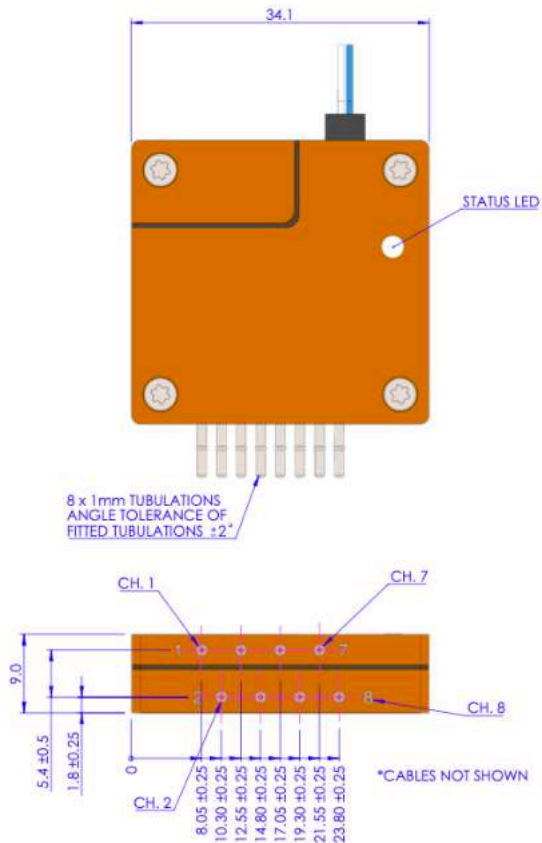
The nanoDAQ-LTC is contained within a miniature package which is sealed to IP67 enabling it to be used in harsh environments. The nanoDAQ-LTC is supplied with a flying lead containing two twisted pairs. We can terminate this in any suitable connector if required.

	nanoDAQ-LTC-8	nanoDAQ-LTC-16
General		
Ranges Available		See below
Number of channels	8 absolute, 8 differential	16 absolute, 15 differential
Maximum Acquisition Speed (measurements / channel / second)		200
Data Output		
Output formats	CAN and Ethernet (via optional daughter board)	
Ethernet Specification	100Mbit TCP/IP or UDP (user configurable)	
CAN Specification (DC Powered version only)	2.0B	
Performance		
Differential Ranges		
System accuracy* (Range = 35 kPa / 5 psi)	± 0.1% Full Scale	
System accuracy* (Range = 17 kPa / 2.5 psi)	± 0.2% Full Scale	
System accuracy* (Range = 7 kPa / 1 psi)	± 0.5% Full Scale	
Absolute Ranges		
Standard	0 to 1310.72 mbar (0.02mbar per bit) : accuracy 0.04% FS	
Optional [1]	150 mbar to 1150mbar : accuracy 0.04% FS	
Optional [2]	130 mbar to 1600mbar : accuracy 0.04% FS	
Optional [3]	600mbar to 1100mbar : accuracy 0.04% FS	
NOTE : The absolute range can be customised to the users requirements by using the web server interface.		
Proof Pressure (all ranges)	50 psig (64.5 psia)	
Output Resolution	16 bit or \pm range / 65536	
System Resolution	24 bit	
Mechanical		
Dimensions	34.1 x 32.5 x 9 excluding tubulations	50 x 23 x 9 excluding tubulations
Weight (16 Channel / 32 Channel)		17g (excluding cable)
Enclosure Sealing	IP67	
Measurement ports	9 x 1.0 or 1.6mm tubulations	16 x 1.0 mm (0.04") tubulations
Power Supply		
Input supply	8-25 VDC	
Power consumption	1VA Max (55 to 60mA at 12 VDC)	1VA Max (56 to 68mA at 12 VDC)
Electrical termination (Option 1)	Flying lead (Belden 887233 002100 - diameter 3.8mm), 500mm length as standard. Can be terminated in user specified connector if required.	
Electrical termination (Option 2)	Flying lead (Raychem 55M0424-26-0/2 and 55M0424-26-6/9) - 500mm length as standard.	
Electrical termination (Option 2)	Can be terminated in free-issued cable at no extra cost (subject to physical constraints).	
Environment		
Operating Temperature Range	-20 to +90°C	
Compensated Temperature Range	0 to 90°C (optional -20 to +90°C)	
Storage Temperature Range	-20 to +90°C	
Ambient Pressure	100 mbar abs (52,000 ft) to 2.5 bar abs	
Vibration	Engine standard vibration test to DO160E category S, curve W with duration of 1 hr/axis. Fan blade (20 g 2 kHz)	
Shock	Fan blade out to DO160F section 7 (40g 11 m/s)	
Maximum relative humidity	95% at 50°C (non-condensing)	
* Accuracy figure includes non-linearity, hysteresis, non-repeatability and thermal gain error over the full operating temperature range.		

nanoDAQ-LTC-16 Dimensions



nanoDAQ-LTC-8 Dimensions



WIRING DETAILS	
RED	V SUPPLY (+)
BLACK	V COM (-)
WHITE	CAN HIGH
BLUE	CAN LOW

