

PRESSURE RANGER

LTE-M Cellular Pressure Transmitter



CLASS 1 DIVISION 2 CERTIFIED

PLUG-&-PLAY, INSTANT CONNECTIVITY OF PRESSURE SENSOR TO THE CLOUD OVER CELLULAR NETWORKS

OPTIMIZED FOR BATTERY LIFE USING LATEST CELL MODEM TECHNOLOGY LTE CAT M1

UTILIZES MQTT/SPARKPLUG-B COMMUNICATION FOR EASY INTEGRATION INTO THIRD-PARTY HOSTS

FEATURES

- LTE CAT M1 connectivity to cloud services
- Integrated pressure sensor
- Data location from built-in GPS
- SignalFire cloud monitoring/alarming service
- Low power sensor allows rapid data collection and report on exception
- Reports max, min, average and instantaneous pressure

PRESSURE SENSOR

PERFORMANCE AT 77°F / 25°C

Accuracy: ±0.25% BFSL

Stability (1 year): ±0.25% FS, typical

Over Range Protection: 2X Rated Pressure, Minimum

Burst Pressure: 5X or 40,000 PSI (whichever is less)

Pressure Cycles: >100 Million

Process Connection: 1/2" NPTM 316L Stainless Steel Standard

F250C Autoclave for pressure >10,000 psi

Other process connections/material available

Standard Pressure Ranges: 0-100 psi, 0-500 psi, 0-1000 psi, 0-3000 psi, 0-5000 psi, 0-10,000 psi, 0-15,000 psi, 20,000 psi

Low Pressure Ranges: 0-2 psi, 0-20 psi

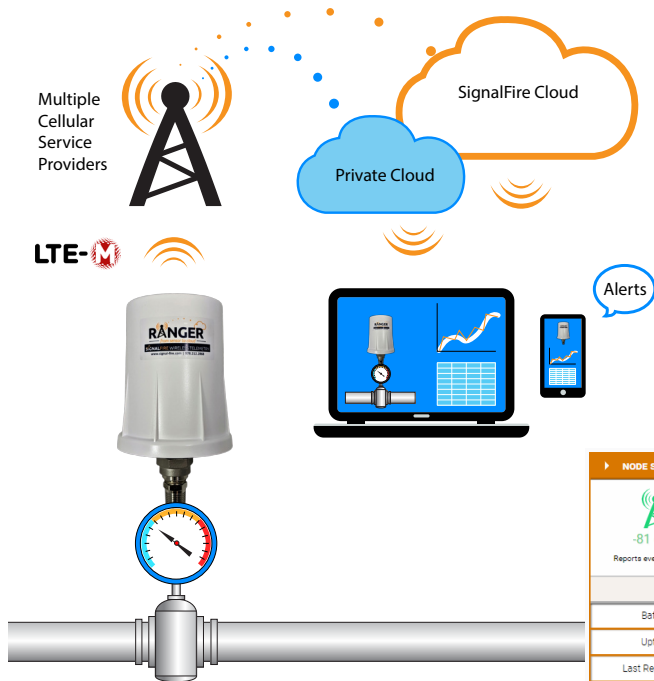
THERMAL LIMITS

Operating Range: -40 to +176°F (-40 to +80°C)

Compensated Range: 32 to +131°F (0 to 55°C)

TC Zero: ±1.5% of FS

TC Span: ±1.5% of FS



NODE STATUS		CONFIGURE
	ONLINE	FORCE REPORT
-81 dBm	Reports every 5 minutes	
Pressure Ranger		
Battery	3.62 V	Temp: 79 °F
Uptime	1 hour 1 minute 8 seconds	
Last Report	2020-09-17 04:02:33 PM	
Online Since	2020-09-17 03:04:44 PM	
Carrier Info	VzW (3B02)	SV Ver: v0.1.9-25-gd781bec-3v
Expiration	2021-08-05 (321 days)	

PRESSURE SENSOR 1 (PRESS1)		CONFIGURE
	Reading: -19.41 psi	Sample Interval: 5 ms
Avg: -19.88 psi	Max: -18.83 psi	Min: -20.92 psi
Scale Units: psi	Scale: 0-1,000 psi	
Low Alarm	< 0 psi (Disabled)	
High Alarm	> 15 psi (Disabled)	

GPS		CONFIGURE
Location at 2020-09-17 16:03:26		
Coordinates	42° 20' 58" N 71° 34' 53" W	
Auto Trigger	Manual	



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TECHNICAL SPECIFICATIONS

Operating Temp:

-40 to +176°F (-40°C to 80°C)

Humidity: 0% - 100% condensing

Power: Four D Cell Lithium battery pack. Field replaceable.

Battery Life: 5+ years with a 5 minute report interval

Data Interface: LTE CAT M1 MQTT with SparkPlug B

Data Transmission:

- Report interval 1 min to 12 hrs (min, max, avg, actual)
- Configurable report on exception threshold.
- Configurable sampling as fast as every 5 seconds.

Cellular Radio Power: 23dBm

Antenna Type: LTE w/ Internal GPS

Enclosure: Industrial polycarbonate UV Rated; IP64

Safety Rating: Class 1 Division 2 Certified, Groups A, B, C, D. Temperature Code T5. Certified to CSA C22.2 No. 213:2017, Conforms to UL 121201:2017

Local Micro-USB Configuration Port

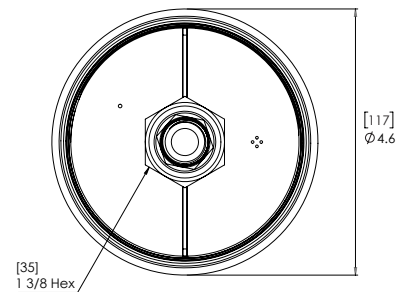
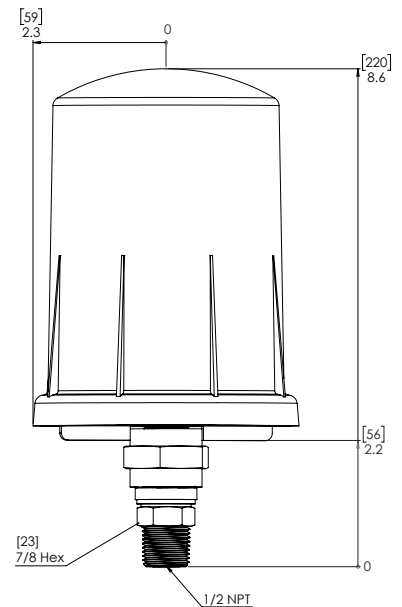
Weight: 2 lbs (910 g)

Estimated Monthly Data Usage:

Check-in interval dependent

- 30 sec = 54 MB
- 1 min = 27 MB
- 5 min = 5.4 MB
- 15 min = 1.08 MB
- 60 min = 0.27 MB

DIMENSIONS



HOW TO ORDER

RANGER-4DPAK-PSI

