

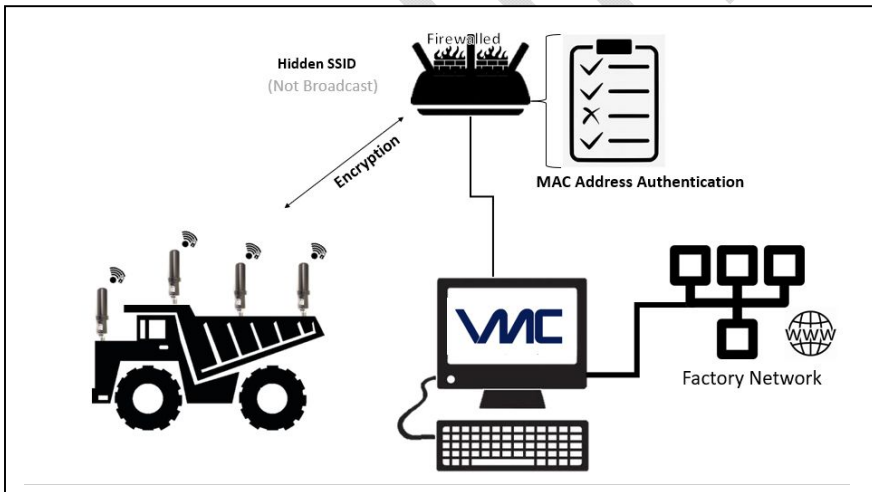


Digital Wireless Pressure Transducer Preliminary Specifications



Description: The VMC digital wireless pressure transducer has been designed for use in industrial and heavy equipment applications. Its rugged design, long battery life and adjustable sample rate make it ideal for use in assembly line applications where multiple stations require the same pressure measurement, or applications where cables creating trip hazards are a concern. Internal circuitry is designed for EMI, overvoltage, and reverse voltage protection. VMC pressure sensor is CE approved for safe operation and RoHS compliant for environmental conservation. Standard pressure ranges are available from 100psi to 10,000psi. The VMC pressure sensor is resistive to shock and vibration and exhibits no measurement error from mounting. The pressure port is machined from a solid piece of stainless steel, eliminating o-rings, organics, or weld exposure to the pressure media, providing an extremely durable and reliable product lifetime of at least ten million operations.

Wireless. The transducer operates on 2.4 GHz encrypted Wi-Fi, for ease of connection into existing infrastructure.



Wireless range is 100 m line of site. Multiple transducers can connect through a secure access point, set up to only accept the MAC address of the transducers, and supports WPA-2 Enterprise security. The sensor can be programmed for different transmit rates to extend battery life, ranging from 1 sample to 100 samples per second. To extend battery life, a sleep command can be issued to the transducer. The sensor can then be awakened when needed. This is useful when the pressure transducer

is attached to a vehicle on the assembly line and the transducer is used in multiple stations. The transducer can disconnect from one station and be put to sleep, and connect to a different station on wake-up.

The VMC Group of Companies



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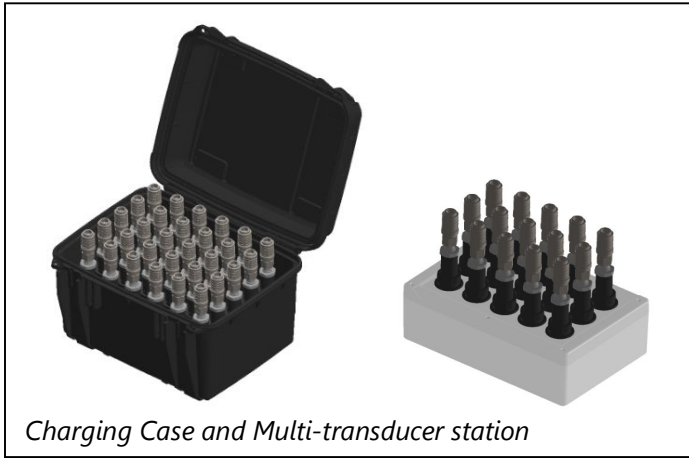
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Visit our web site: www.VMCNET.com

Battery and Charging: An 3300 mA Hour LiFePo4 battery is used. This battery is safer than other Li-ion batteries, provides 8 hours of transmit time at 100 Hz transmit rate, and up to 5 days of sleep time. Charging is wireless, eliminating the need for external charge ports and connections. Single, dual or multiple port charging stations, up to 30 transducers (concepts at left), are available. Charging stations are not affected by oil and water and are equipped with drain holes. Charging devices use external laptop style power supplies.



Charging Case and Multi-transducer station

Charge time is 4 hours to full charge



Specifications

Performance is directly traceable to the National Institute of Standards and Technology and specifications are conservatively stated. A calibration test certificate is provided with each transducer.

Available Pressure Ranges:

100, 500, 750, 1000, 3000, 5000, 7500 and 10,000 psi
(690, 3450, 5170, 6895, 20685, 34475, 51700 and 68950 kPa)

Battery

LiFePo4 3300 mA Hour
8 hours @ 100 Hz Transmit Rate plus 5 days sleep
Wireless Charge – 4 hours to full charge
Charge Temperature Range : 0 to 45C
Discharge Temperature Range: -20 to +60 C

Wireless

2.4 GHz Wi-Fi 100 m Range Line of Site
Programmable sample rate 1 -100Hz
Programmable Wake up for longer life
Can wake on pressure detection.

Physical:

Dimensions: 7.13"L x 1.85"D (181mm L x 47mm D)
Weight: 12.8 oz (363g)
Mounting: ¼-18 NPT
Wrench: 1-1/16" Hex (1.063 in) 27mm)

Mechanical:

Pressure:
Burst: 5 x Full Scale (FS) Rating
Durability: 1.00E7 FS Cycles
Overload: 2 x FS Rating (1.5 x FS on 5000 psi)
(1.2 x FS on 7500 psi)
Pressure Port Material: 17-4PH S.S.
Sensor Type: Gauge Pressure
Shock: 50g 11 msec Half Sine Shock per:
MIL-STD-202G, Method 213B, Condition A
Vibration: 20g. MIL-STD-810C, Procedure 514.2,
Figure 514.2-2, Curve L.

Performance:

Accuracy: ±0.5%FS (NLH&R)
Stability: ±0.25%FS / Year
Total Error Band: ±1.0%FS
EMI Protected: (0 – 100)V/m Field Strength Operating
Temperature is limited by battery as shown above.

Compliance:

CE Approval - Pending
✓RoHS – Pending

Specifications may change without notice. The information we supply is believed to be accurate and reliable at the time of this document release. However, we assume no responsibility for its use. VMC will provide application assistance either directly, or through our literature and web site, it is the customer's responsibility to determine the suitability of the product and its application.

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