Wireless Vibration and Temperature Monitoring

Vibration monitoring and predictive maintenance made easy with the full solution from Banner.

- Detect problems earlier
- Predict failures
- Reduce down time
- Plan maintenance efficiently
Easy Installation of Wireless Remote Monitoring

Monitor temperature and vibration with the QM42VT sensor.

- Mount to motors, compressors, fans, pumps with a variety of options
- Set vibration parameters according to ISO 10816 Vibration Severity Chart
- Set a temperature threshold up to 80°C
- Provides local indication, sends signal to a central location and collects data via the Gateway

Select One Wireless Node

1-Wire Serial QM42VT1
- 1-wire serial interface
- One vibration sensor to one node with 1-wire serial interface

Modbus QM42VT2
- Functions as a modbus slave device via RS-485
- Can be connected via a wireless or wired modbus network

Select Modbus Radio

Indicators
- Green: Power ON
- Amber: Serial Tx

Rugged IP67 zinc alloy housing
- Withstands harsh environments

3 meter cable with 5-pin Euro male connector
- Connect to one wireless Node
Designed to work with Sure Cross® Wireless Nodes and Data Radios

**Simple Monitoring**
Q45VT or Q45U Node
- Easy-to-use without software
- Attractive price point
- LED for local indication
- Two AA lithium batteries

**Monitor Many Sensors Over Long Distances**
P6 Performance Node
- Expandable up to 47 Nodes
- Cover large areas with 900 MHz, 1 Watt power
- LCD screen displays register values
- D-cell lithium battery or 10 to 30 V dc

**Monitor Many Sensors While Using Multiple Hops**
H6 Multihop
- Expandable up to 100 slave radios
- Use repeaters to extend range and circumvent obstacles
- Modbus host controller required
- D-cell lithium battery

**Modbus Slave**
Multihop Modbus Slave with RS-485
- Connect to any modbus network
- Expandable up to 100 slave radios
- Use repeaters to extend range and circumvent obstacles
- Modbus host controller required

**Modbus TCP/IP or Ethernet IP**
DXM100
- PLC
- Performance or PM Gateway
- Local Wireless Network

**Discrete and Analog Outputs**
- PLC
- Local Wireless Network

**Serial Interface**
- MultiHop Data Radio
- PLC (required)

**Modbus TCP/IP or Ethernet IP**
DXM100
- PLC
- Local Wireless Network
Supply Voltage
3.6 to 5.5 V dc or 10 to 24 V dc

Current
Active comms:
QM42VT1: 11.9 mA at 5.5 V dc
QM42VT2: 8.8 mA at 24 V dc

Indicators
Green flashing: Power ON
Amber flicker: Serial Tx

Vibration
Mounted base resonance: 5.5 kHz nominal
Measuring range: 0–46 mm/sec or 0–1.8 in/sec RMS
Frequency Range: 10 – 1000 Hz
Accuracy: ± 10% @25 °C

Temperature
Measuring range: -40 to +105 °C (-40 to +221 °F)
Resolution: 0.1 °C Accuracy: ±3 °C

Environmental Rating
NEMA 6P, IEC IP67

Shock
400G

Cable Connection
Integral 5-pin M12/Euro-style male quick disconnect (QD)

QM42VT Vibration and Temperature Sensor
Models
Description
QM42VT1 Vibration and temperature sensor with 1-wire serial interface
QM42VT2 Vibration and temperature sensor that functions as a modbus slave device via RS-485

MultiHop Modbus Radios
Models
Description Frequency
DX80DR9M-H MultiHop Modbus Radio 900 MHz
DX80DR2M-H 2.4 GHz
DX80DR9M-H1E MultiHop Modbus Radio with I/O — battery 900 MHz
DX80DR2M-H1E 2.4 GHz
DX80DR9M-HB1 MultiHop Modbus Radio with I/O — Board model 900 MHz
DX80DR2M-HB1 2.4 GHz

See website for other models

Nodes with 1-Wire Serial Interface
Models
Description Frequency
DX80N9Q45U Q45 Wireless Node with integrated battery 900 MHz
DX80N2Q45U 2.4 GHz
DX80N9Q45VT Q45 Vibration and Temperature Node 900 MHz
DX80N2Q45VT 2.4 GHz
DX80N9X1S-P6 1-wire Serial Performance Node with integrated battery 900 MHz
DX80N2X1S-P6 2.4 GHz
DX80N9X6S-P6 1-wire Serial Performance Node 10 to 30 V dc
DX80N2X6S-P6 2.4 GHz
DX80DR9M-H6 1-wire Serial Modbus MultiHop Slave with integrated battery 900 MHz
DX80DR2M-H6 2.4 GHz

See website for other models

PM Gateways (10-30 V dc)
Models
Description Frequency
DX80G9M6S-PM2 4 Discrete in, 4 Discrete out, 2 Analog in, 2 Analog out 900 MHz
DX80G2M6S-PM2 2.4 GHz
DX80G9M6S-PM8 6 Discrete in, 6 Discrete out 900 MHz
DX80G2M6S-PM8 2.4 GHz

See website for other models

DXM100 Controller
Models
Description Frequency
DXM100-B1R1 DXM100 Controller with DX80 Gateway preconfigured as a protocol converter 900 MHz
DXM100-B1R3 2.4 GHz
DXM100-B1R2 DXM100 Controller with MultiHop Data Radio 900 MHz
DXM100-B1R4 2.4 GHz

See website for other models

Cordsets
Type Length Model
5-Pin M12/Euro-Style—Double-Ended 0.31 m (1 ft) DEE2R-51D
0.91 m (3 ft) DEE2R-53D
2.44 m (8 ft) DEE2R-58D