

# QM42VT Q45VT



## 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



## 1-Wire Serial QM42VT1

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



Select One Wireless Node

### 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



## Modbus QM42VT2

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

Select Modbus Radio

# Designed to work with Sure Cross<sup>®</sup> 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
- Expanable up to 100 slave radios
- Use repeaters to extend range and circumvent obstacles
- Modbus host controller required



Select One

Select One

## Modbus TCP/IP or Ethernet IP



DXM100



PLC



Local Wireless Network

## Discrete and Analog Outputs



Performance or PM Gateway



PLC



Local Wireless Network

## Serial Interface



MultiHop Data Radio



PLC (required)

## Modbus TCP/IP or Ethernet IP



DXM100



PLC



Local Wireless Network



## 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



<b>Supply Voltage</b>	3.6 to 5.5 V dc or 10 to 24 V dc
<b>Current</b>	Active comms: QM42VT1: 11.9 mA at 5.5 V dc QM42VT2: 8.8 mA at 24 V dc
<b>Indicators</b>	Green flashing: Power ON Amber flicker: Serial Tx
<b>Vibration</b>	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
<b>Temperature</b>	Measuring range: -40 to +105 °C (-40 to +221 °F) Resolution: 0.1 °C Accuracy: ±3 °C
<b>Environmental Rating</b>	NEMA 6P, IEC IP67
<b>Shock</b>	400G
<b>Cable Connection</b>	Integral 5-pin M12/Euro-style male quick disconnect (QD)

## 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		
DX80DR9M-H6	1-wire Serial Modbus MultiHop Slave with integrated battery	900 MHz
DX80DR2M-H6		2.4 GHz

## 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

## 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

## PM Gateways (10-30 V dc)

Models	Description	Frequency
DX80G9M6S-PM2	4 Discrete in, 4 Discrete out	900 MHz
DX80G2M6S-PM2	2 Analog in, 2 Analog out	2.4 GHz
DX80G9M6S-PM8	6 Discrete in, 6 Discrete out	900 MHz
DX80G2M6S-PM8		2.4 GHz

See website for other models

## Accessories

### Brackets



BWA-BK-002

BWA-BK-001 (magnet)

### 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

