

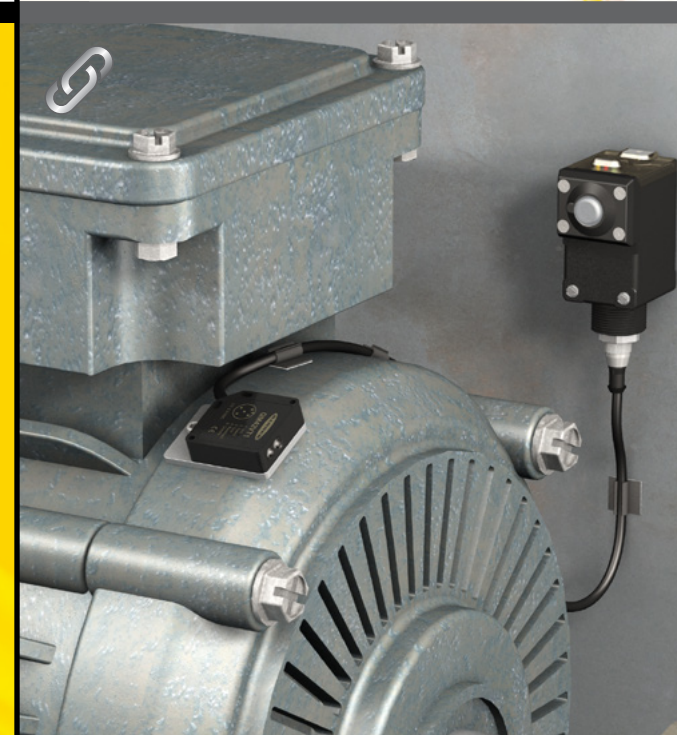
QM42VT1
Q45VT



Wireless Vibration and Temperature Monitoring

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

- Easily **monitor machine health** by sending info wirelessly to wherever you need it
- Avoid machine failures and delays by **detecting problems early**
- **Reduce downtime** and plan maintenance more efficiently
- Monitor a **variety of machines** to suit your needs
 - Motors
 - Pumps
 - Compressors
 - Fans
 - Blowers
 - Gear Boxes

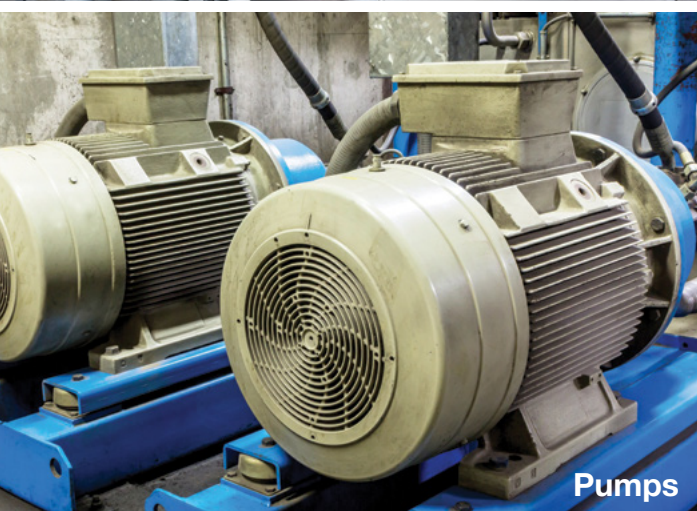




Motors



Fans



Pumps

Easy Installation of Wireless Remote Monitoring:

Monitor temperature and vibration with the QM42VT1 sensor.

- Predict failures
- Reduce down time
- Plan maintenance efficiently

3 meter cable with 5-pin Euro male connector
• Connect to one wireless Node



Indicators

- Green: Power ON
- Amber: Serial Tx

Rugged IP67 zinc alloy housing
• Withstands harsh environments

- Mount to motors, compressors, fans, pumps with a variety of options
- Wiring: Connect one QM42VT1 to one Node with 3 meter cable—5-pin Euro male connector
- Set vibration parameters according to ISO 10816 Vibration Severity Chart
- Set a temperature threshold up to 80°C
- Powered by one Node
- Provides local indication, sends signal to a central location and collects data via the Gateway

Select
Wireless

No Lengthy Cable Runs. No Power Needed.



Q45VT

Simple Monitoring: Typically 1 to 6 sensors/Nodes per Gateway*

Frequency:	2.4 GHz, Range
Power:	(2) 3.6 V AA lithium batteries
Topology:	Star
Display:	Indicator stable vibration temperature
Wiring:	5-pin Euro female connector
Configuration:	DIP switches

* More than six nodes is possible. Contact factory for assistance.

Monitor Many Sensors Over Long Distances:

Up to 47 sensors/Nodes per Gateway

Frequency:	2.4 GHz, Range 900 MHz, Range
Power:	(1) 3.6 V D-cell lithium battery
Topology:	Star
Display:	Six character LCD (registers values)
Wiring:	5-pin Euro female connector
Configuration:	Universal Configuration Tool license-free software



P6 Performance Node

Monitor Many Sensors Over Multiple Hops:

Up to 50+ sensors/Nodes per Master Radio

Frequency:	2.4 GHz, Range (+with additional slaves) + + ... 900 MHz, Range (+ with additional slaves) + + ...
Power:	(1) 3.6 V D-cell lithium battery
Topology:	Tree
Display:	Six character LCD
Wiring:	5-pin Euro female connector
Configuration:	Universal Configuration Tool license-free software



H6 MultiHop Slave

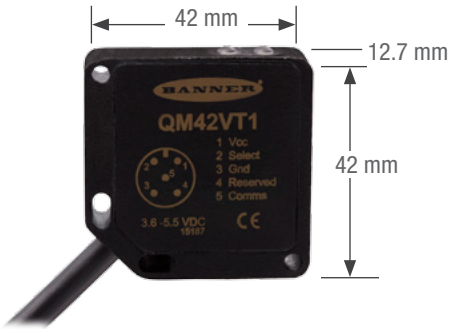
Select a Gateway



Select a Data Radio



QM42VT1
Wireless Vibration Sensor



Supply Voltage	3.6 to 5.5 V dc
Current	Active comms: 11.9 mA at 5.5 V dc
Indicators	Green flashing: Power ON Amber flicker: Serial Tx
Vibration	Mounted base resonance: 5.5 kHz nominal Measuring range: 0 – 65 mm/sec or 0 – 6.5 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	400 g

Nodes

Models	Description	Frequency
DX80N2Q45VT	Q45 Vibration/ Temperature Node	2.4 GHz
DX80N9X1S-P6	1-wire Serial Performance Node	900 MHz
DX80N2X1S-P6		2.4 GHz
DX80DR9M-H6	1-wire Serial Modbus MultiHop Slave	900 MHz
DX80DR2M-H6		2.4 GHz



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

Gateway Pros (10-30 V dc)

Models	Description	Frequency
DX80P9T6S-P		900 MHz
DX80P2T6S-P		2.4 GHz
DX80P9A6S-P	Modbus/TCP to EtherNet/IP Converter	900 MHz
DX80P2A6S-P		2.4 GHz

MultiHop Modbus (FlexPower*)

Models	Description	Frequency
DX80DR9M-H	Serial interface: user selectable between RS-485 or RS-232	900 MHz
DX80DR2M-H		2.4 GHz

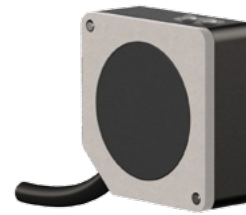
*FlexPower® power options allow for 10 – 30 V DC, solar, and battery power sources for low power applications

Accessories

Flexible Mounting Solutions to Suit Your Needs



[BWA-BK-002](#)



[BWA-BK-001](#) (magnet)



5-Pin Threaded M12/
Euro-Style Double-ended
Cordset
Female/Male straight connectors

DEE2R-51D	0.31 m (1')
DEE2R-53D	0.91 m (3')
DEE2R-58D	2.44 m (8')



Wireless Vibration and Temperature Monitoring

Link to data sheets

SureCross Performance FlexPower Gateway

Datasheet

The SureCross wireless system is a radio frequency network with integrated I/O that can operate in most environments and eliminate the need for wiring runs. Wireless networks are formed around a Gateway, which acts as the wireless network's master device, and one or more Nodes.

- Wireless Industrial Gateway with a serial RS-485 interface
- Scalable network power levels of 250 mW or 1 Watt for 900 MHz nodes and 0.5 Watt for 2.4 GHz nodes
- Built-in power options allow for 55 to 35 V ac, solar, and battery power sources for low power applications.
- Site Survey software displays the system's signal strength and reliability and displays the results on the device's LCD
- Frequency Hopping Spread Spectrum (FHSS) technology and Time Division Multiple Access (TDMA) control architecture ensure reliable data delivery within the unlicensed Industrial, Scientific, and Medical (ISM) band
- Transceivers support bidirectional communication between the Gateway and Nodes
- Low RF fields are detected and relevant outputs set to user-defined conditions
- Certified for use in Class 1, Division 2, Groups A, B, C, D Hazardous Locations when properly installed in accordance with the National Electrical Code, the Canadian Electrical Code, or applicable local codes/regulations (see Specifications)

For additional information, updated documentation, and accessories, refer to Banner Engineering's website, www.bannerengineering.com/Products

Model	Power	Frequency	Interface
218000020-1	55 to 35 V ac or 2.4 to 5.5 V dc low power	900 MHz ISM Band	Serial RS-485 with Hubbell RTU
218000020-2	55 to 35 V ac	2.4 GHz ISM Band	Serial RS-485 with Hubbell RTU

BANNER
more sensors, more solutions

2015

Link to catalog

Link to the Banner website

SureCross Wireless Products

Why SureCross Wireless?

- Reduce costs by eliminating the need for wiring, conduit and cabling
- Increase output accuracy (available in discrete only hardware)
- Increase non-productivity by reducing process to zero position before they occur
- Reduce equipment complexity and maintenance time and cost

Selected by Industry/Regulation

Selected by Type

Order Now/Contact Us

!-!-! Risk To Be Used for Personnel Protection

!-!-! Never Operate a Wall Radio Without Antennas

!-!-! Electromagnetic Discharge (ESD)

!-!-! Safety Notice: This product uses semiconductors that can be damaged by electrostatic discharge (ESD). When performing maintenance, care must be taken so the device is not damaged by power from the device when accessing the internal ESD sensitive. Proper handling includes wearing anti-static wrist straps. Damage from inappropriate handling is not covered by warranty.



Talk with an app engineer. Get product specs. Order now.
1-888-373-6767 • bannerengineering.com
minneapolis, mn

