Connecting Multiple VT2 **Vibration/Temperature** Sensors to a **MultiHop** Radio

more sensors, more solutions

Technical Note

Connecting Multiple Modbus Sensors to a **MultiHop** Radio

The MultiHop Radio networks may have up to 50 remote Modbus devices within their network. This allows the user to hard wire multiple Modbus sensors in the same general location without the need for additional slave radios. When the network uses the DXM100-B1R2 Wireless Controller, the network may have up to 99 remote Modbus devices (includes both radios and Modbus sensors).

The following Modbus sensors may be configured similarly:

- QM42VT2 Vibration and Temperature Sensors
- M12FTH3Q Temperature and Humidity Sensor
- K50UX2RA Ultrasonic Sensor

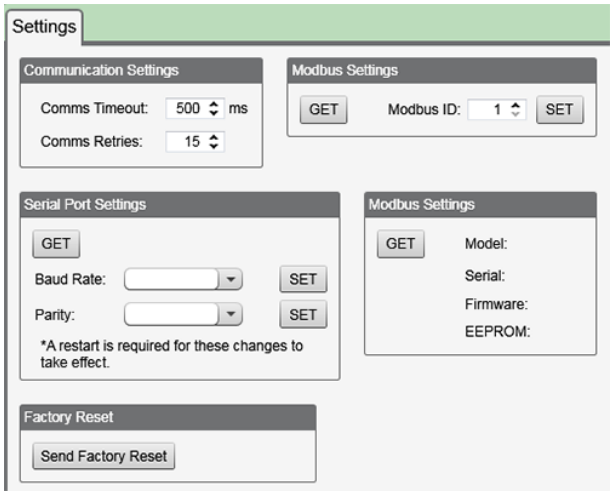
Assign a Slave ID to a Modbus Sensor

Required tools include: a PC with the Sensor Configuration Tool installed and the BWA-HW-006 or BWA-UCT-900 USB to RS-485 converter cable.

The default Modbus slave ID of the QM42VT2 sensor is 01 and must be changed for each sensor using the Sensor Configuration Tool. Modbus Slave IDs 01 through 10 are reserved for slaves directly connected to the host. Use Modbus slave IDs 11 through 60 for the Multihop master, repeater, slave radios, and for the QM42VT2 Modbus slave sensors.

For example, assign the Master radio to be slave ID 11, the slave radio to be slave ID 12, and five QM42VT2s to be slave IDs 13 through 17.

1. Connect the QM42VT2 to the computer running the Sensor Configuration Tool using a BWA-HW-006 converter cable.
2. Launch the Sensor Configuration Tool.
3. Choose the correct COM port and click Connect.
4. From the drop-down list, select the Modbus sensor you are configuring and click Ok. For this example, select Vibration. The Sensor Configuration Tool screens specific to the Vibration sensor display.
5. From the **Settings** screen under Modbus **Settings**, select the Modbus Slave ID and click Set.

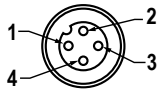
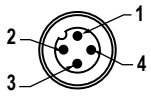
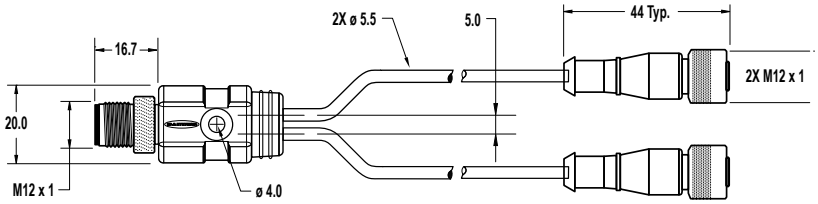


6. To verify the Modbus Slave ID has been changed, go to the **Vibration** screen. Under Read **Settings**, click Read. The sensor's Modbus Slave ID displays.
7. Disconnect the sensor from the adapter cable and connect the next sensor. Repeat steps 3 through 6 for each sensors you need to assign a slave ID to.

Wiring **Multiple** Modbus Sensors to a **MultiHop** Slave Radio

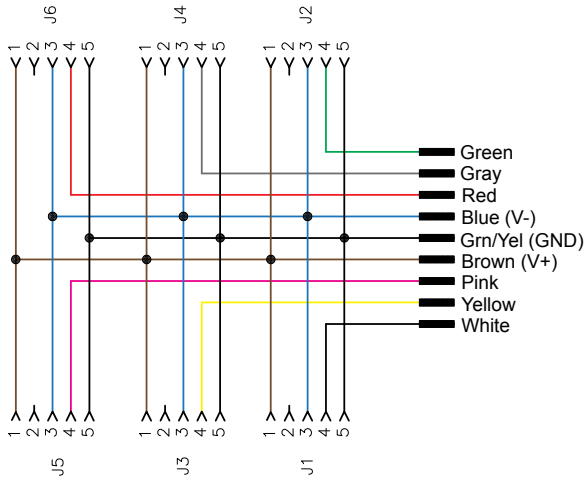
Use either a splitter cable or a junction box to wire multiple Modbus slave sensors to a MultiHop slave radio.

To connect two Modbus sensors to a MultiHop radio, you may use the following splitter cable.

4-Pin Threaded M12/Euro-Style **Splitter** Cordsets—Rounded **Junction**			
Model	Branches (Female)	Trunk (Male)	Pinout
CSRB-M1240M1241	0.31 m	No Trunk	Female  Male  1 = Brown 2 = White 3 = Blue 4 = Black
CSRB-M1240M1242	0.61 m		
CSRB-M1240M1243	0.91 m		
CSRB-M1240M1244	1.22 m		
			

Wiring to connect more than two Modbus sensors to a **MultiHop** radio

Wiring for a **junction** box



Wiring for a four-trunk **splitter** cable