



MOD9200LON Spread Spectrum Wireless LonWorks® Network Transceiver

General Description

The Series 2000 LonWorks® network transceiver utilizes reliable Spread Spectrum Mesh Network Radio technology. Together with other Trs wireless sensors and controls, the system can be used to transmit remote sensor readings, status/alarm indications, control signals and outputs wirelessly. It is compatible with control networks or automation systems that utilize LonWorks® communication protocol or interface. Up to 50 separate physical wireless sensor transmitters and/or wireless remote output (analog & digital) modules can be used with one MOD9200LON Transceiver and up to 100 data points and 100 wireless outputs can be monitored and controlled with one (1) MOD9200 Transceiver.

Ordering Information

<u>Model</u>	<u>Description</u>
MOD9200LON-A	Up to 30 wireless wall temp sensors with setpoint adjustments and/or push button override switches, up to 6 humidity sensors, up to 50 wireless digital outputs & up to 50 wireless analog out.
MOD9200LON-B	Up to 50 wireless temperature only sensors (50 wall, duct or immersion types), up to 50 wireless digital outputs & up to 50 wireless analog out.
MOD9200LON-C	Up to 50 wireless sensors (up to 50 temperature points and up to 50 humidity points), up to 50 wireless digital outputs & up to 50 wireless analog out.
MOD9200LON-D	Up to 50 wireless devices (40 0-10VDC point types, 40 discrete inputs, 10 temperature, 10 humidity point types), up to 50 wireless digital outputs & up to 50 wireless analog out.
MOD9200LON-E	Up to 50 wireless sensors/transmitters (26 temperature points, 26 setpoint adjustments, 26 push button override switches, 12 CO2 PPM inputs, 6 humidity points, 4 digital status inputs), up to 50 wireless digital outputs & up to 50 wireless analog out.
MOD9200LON-F	Up to 50 wireless sensors (up to 40 temperature points, up to 20 humidity points & 40 discrete inputs), up to 50 wireless digital outputs & up to 50 wireless analog out.

Note: LonWorks is a registered trademark of Echelon Corporation

Features

- Suitable for control or building automation applications such as VAV terminal unit control, air handling unit control and building monitoring systems
- Monitor up to 100 data points, control up to 50 wireless digital output points and 50 wireless analog output points per MOD9200LON in the form of SNVTs (Standard Network Variable Type)
- Multiple MOD9200 Transceivers can be used for large systems
- Requires standard Lon network management tool such as LonMaker®, Tridium® software or equivalent
- Simple PC Windows® based wireless sensor setup tool
- Low battery and lost sensor alarm indications per wireless sensor
- Support LonWorks® Protocol
- Reliable Spread Spectrum mesh network technology

Specifications

Input Power:

- 24 VAC 60 Hz, 500 mA (nominal)

Dimensions:

- 8.8" x 4.7" x 2.25"

Operating Conditions:

- 32 F to 150 F
- 5 to 95% non-condensing

Case

- Flame Retardant ABS Plastic (Black)
- UL Flame Rating – 94-5VA

Network Connections:

- Protocol – LonWorks®
- Physical Layer – FTT-10 (Free Topology Twisted Pair)
- Data rate – 78kbps

LonWorks® SNVTs Supported:

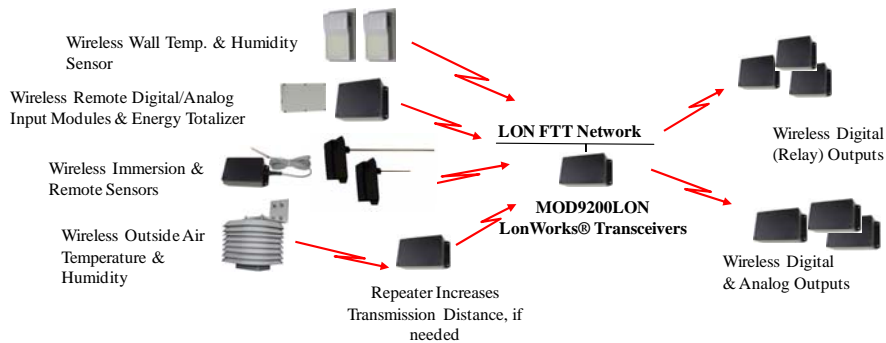
- Temperature: SNVT_temp_p
- Override Push Button: SNVT_occupancy
- Setpoint Adjustment: SNVT_temp_p
- Humidity: SNVT_lev_percent
- Sensor Status/Alarms: SNVT_count
- PPM: SNVT_ppm
- Digital output: SNVT_XXX
- Analog Output: SNVT_lev_percent

RF Characteristics

- Operating Frequency Channel
 - 902 – 928 MHz
- Receiver Sensitivity (avg. power)
 - –110 dBm

Approvals

- FCC Certified



Sub-System Overview

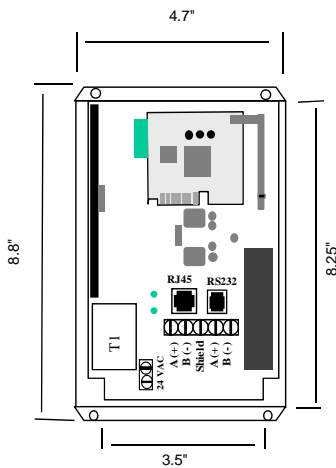


Figure 1

The maximum radio transmission distance is dependent on building type. The maximum open-air transmission distance is one mile. In a typical commercial building, it can be expected that transmissions will penetrate vertically through floors and horizontally through 200 to 500 feet of walls, furniture and air.

Wireless sensor transmitters should be installed within 200 to 500 feet of the MOD9200 transceiver.

RR2552 signal repeaters can be installed as needed to increase transmission distance between sensors and transceivers.

! CAUTION

Sensors, Repeaters and transceivers should **NOT** be installed in the following areas:

- Inside metal enclosure/panel
- Inside or immediately next to elevator shaft/elevator banks
- In front of or immediately next to large trees or a large body of water

Transmission distance and performance will be drastically reduced.

Installation

- Refer to the configuration setup instruction manual for configuration of the MOD9200LON registers and input variables setup. A PC is required for the setup of the Transceiver.
- Choose a location close to the LonWorks® network connection and away from the floor.
- Mount the gateway on the wall using four #8 screws.
- 24 VAC Input - Connect 24VAC 60 Hz to the input terminals using 20 AWG wire (See Figure 1).
- FTT-10 - Use 20 or 22 gauge shielded twisted pair wire to connect the Transceiver(Terminals "A(+)" & "B(-)") to the LonWorks network (See Figure 1). The connection of the FTT-10 network is not polarity sensitive.

! CAUTION

Do not use this product in any safety related applications where human life may be affected.

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