

Expanded Line of Gateways and Modems*

Monitoring the difficult parts of your operation has never been simpler.

Cooper Crouse-Hinds® now offers a complete solution of wireless modems and I/O gateways within the Industrial Wireless Solutions product line. Industrial modems provide wireless access to information housed in data loggers and PLCs within your plant so you can keep abreast of vital control parameters. I/O gateways provide a comprehensive line of radios which interface with the varied fieldbus protocols you currently have in the field. You'll now be able to provide instrumentation signals using the most common control protocols for PLC, DCS, and SCADA.



WIRELESS MODEMS - Class I, Div. 2**

Wireless modems are used to connect PLCs in industrial environments. They can also provide wireless access to field data loggers or data acquisition units in process plants. 900 MHz (Frequency Hopping Spread Spectrum) and 2.4 GHz (Direct Sequence Spread Spectrum) devices are now available.



Catalog Number	Description
D2 W MDME 900	900 MHz Wireless Ethernet Modem
D2 W MDME 2400 1	2.4 GHz Wireless Ethernet Modem (100mW)
D2 W MDME 2400 3	2.4 GHz Wireless Ethernet Modem (300mW)

WIRELESS MODEM FEATURES

- The 900 MHz modem is capable of sending/transmitting over 20+ miles when using a higher gain antenna, whereas the 2.4 GHz modem can send/transmit over 5 miles with a high gain antenna
- 10/100 BaseT Ethernet plus RS232/RS485 serial ports
- Military-grade AES security encryption of wireless data
- Modems can increase their radio range via repeaters
- Message filtering at MAC and IP address level
- Configuration and diagnostics via web browser
- Remote configuration and diagnostics via wireless link
- Automatic changeover to another access point if a wireless link fails (mesh networking)
- Modbus Master capability for both Modbus TCP and serial Modbus RTU
- Configurable as Access Point/Client; Bridge/Router/Repeater

WIRELESS I/O GATEWAYS - Class I, Div. 2**

Wireless gateways are capable of communicating with other I/O wireless devices contained in Literature #4932-0808, as well as PLCs, SCADA systems, and DCSs that operate using the following protocols:



Catalog Number†	Protocol
D2 W GMD 900††	Modbus Master and Slave / DF1 Interface
D2 W GPR1 900	Profibus-DP Slave Interface
D2 W GPR2 900	Profibus-DP Master Interface
D2 W GET1 900	Allen-Bradley® EtherNet/IP, Modbus TCP, TCP/IP functions
D2 W GDET1 900	DeviceNet Slave Interface
D2 W GM1 900	Modbus Plus Slave Interface

Gateways can also be used to wirelessly link control systems operating under differing protocols (such as Ethernet or Modbus) by performing signal conversions. Additionally, each gateway is capable of sending/transmitting over 20 miles when using an antenna.

**Radios listed in Literature #4932-0808 are certified for Class I, Division 2.
 †Transmitted distances can vary due to site-specific conditions (topology, RF noise, etc.)
 ††Included in Literature #4932-0808.
 Allen-Bradley® is a registered trademark of Rockwell Automation.

*Addendum to Literature #4932-0808

For more information, please contact your local Cooper Crouse-Hinds Sales Representative, or contact our Customer Service Center at 866-764-5454 or wireless.support@cooperindustries.com.

Antennas

Cooper Crouse-Hinds antennas for modems and gateways are available in a variety of dB gain ratings and for application-specific needs. Cooper Crouse-Hinds Sales Representatives can help you select the appropriate antenna. Antennas for use with the 2.4 GHz Wireless Ethernet Modem are detailed below (900 MHz antennas are listed in Literature #4932-0808).

SG2400EL (2.4 GHz Collinear Antenna)

- 5.1dB gain
- Designed for use with the Cooper Crouse-Hinds CC10 SMA, or CC3 SMA coaxial cable extender kits
- At data link 2.4 GHz frequencies, it is important to keep cable runs to the shortest length possible; where a long run is unavoidable, a suitable low loss cable (such as a RU400) should be used
- Mounting brackets and hardware provided
- Connector: N-Type (female)
- Height: 55 cm
- Impedance: 50 ohms



Y2400 18EL (GHz 18 Element Yagi Antenna)

- 18dB gain
- Suitable with CC10 SMA / CC20 SMA coaxial extenders
- Mounting brackets and hardware provided
- Connector: N-Type (female)
- Length: 70 cm; diameter: 8 cm
- Impedance: 50 ohms



MD2400EL (2.4 GHz Collinear Antenna)

- 0dB gain
- Approximately 15 feet (5m) of low loss RG58 coaxial cable is terminated with a male SMA connector
- Mounting brackets and hardware provided
- Length: 23 cm
- Impedance: 50 ohms



Z2400EL (2.4 GHz Collinear Antenna)

- 10dB gain
- Connector: N-Type (female) connector built inside of mounting tube
- Mounting pole clamp included (304 stainless steel)
- Length: 85 cm
- Impedance: 50 ohms



WH2400 SMA (2.4 GHz Whip Antenna)

- Nominal gain: 0dB
- Designed for short distances (50 feet or less) and for indoor applications only
- Connector: SMA (male)
- Length: 54 mm
- Impedance: 50 ohms



Cables

Configuration cables are needed to commission the radios during installation procedures. A shorter cable is available for antennas which are positioned up to 10 feet away from the modem or gateway.

CBLETH C5A (Straight-through Configuration Cable)

- Used to connect to and communicate with the D2 W MDME 900 and D2 W MDME 2400 Ethernet modems using a PC or via a network router, switch, or hub
- Length: 2 meters



CC3 SMA (Coaxial Antenna Cable)

- 1dB loss (@ 900MHz); 2dB loss (@ 2.4 GHz)
- Length: 3 meters (10 feet)
- Connector: SMA (male) and N-Type (male)
- Impedance: 50 ohms



CBLETH C5X (Crossover Configuration Cable)

- Used to connect to and communicate with a D2 W GET1 900 Ethernet gateway using a PC or via a network router, switch, or hub
- Length: 2 meters