



OMNEX

Cordless Wire™ Connections SINCE 1986

Eliminate the expense of cable, conduit and pendants

DM-900 Data Sheet

DIN Rail Mount RS232 Radio Transceiver

Bldg. 74 - 1833 Coast Meridian Road
Port Coquitlam, BC, Canada V3C 6G5

Telephone: (604) 944-9247

Fax: (604) 944-9267

Web site: www.omnexcontrols.com

In an industrial communication environment, where radios are getting faster and faster and performance is getting worse and worse, do you need a "Data Tractor"?



A rugged wireless modem capable of:

- ◆ "Grinding through" interference
- ◆ Tolerating a wide range of input voltages
- ◆ Enduring extreme temperatures
- ◆ Benefitting from multi-path
- ◆ Surviving noisy radio neighbors
- ◆ Delivering accurate data



Features

- ✓ License free FHSS
- ✓ Class I, Div 2
- ✓ Wide range of input voltages
- ✓ Broad temperature range
- ✓ Assured and Broadcast modes of communication
- ✓ Auto-Routing in repeater networks
- ✓ ARQ and error-checking
- ✓ Capable of MASTER, SLAVE or "Store-and-Forward" REPEATER SLAVE modes
- ✓ Dry contact LINK output

The OMNEX DM-900 DIN rail mount wireless data radio is a "Data Tractor" designed specifically for use in heavy interference environments where the chief concern is data integrity. Using the same FHSS RF platform our I/O HopLinks rely upon, added features such as Assured communications, Auto-Routing and "Store-and-Forward" repeater capability make this the logical choice for moving serial data through environments where other radios fail to perform.

Wireless Data Solutions



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DIN Rail Mount RS232 Radio Transceiver

Engineering Specifications - P/N ASSY-2191-01

Frequency.....	902 to 928 MHz - ISM band
Transmit Power.....	1 Watt (30dBm)
Operation.....	Half-duplex
Radio Modes.....	MASTER, SLAVE, REPEATER/SLAVE
Serial Port.....	RS232
Serial Connector.....	DB9
Data Port Rates.....	1200, 2400, 4800, 9600, 19200, 38400 baud (Asynchronous)
Flow Control.....	Selectable between <i>Hardware</i> or <i>None</i>
Auto-Routing.....	MODBUS, Allen-Bradley DF1 protocols
Error Correction/ Detection.....	ARQ with CRC-16
LED Indicators.....	External (RF, TX, RX)
Discrete Outputs.....	RSSI, LINK status
Power.....	9 to 30VDC
Power Consumption....	2.4 Watts (average) / 4.1 Watts (peak) - MASTER > 0.4 Watts (average) / 4.1 Watts (peak) - SLAVE
Reverse Polarity Protection.....	Yes
Range.....	600 to 1000 feet (180 to 305m) in-plant [obstructed]; 4 to 5 miles (6 to 8km) line-of-sight with Omni antenna; 20+ miles (32km) line-of-sight with Yagi antenna
Antenna Connector.....	MCX (female)
Temperature Range....	-40°F to 158°F (-40°C to 70°C)
Humidity.....	20% to 90% (non-condensing)
Mounting.....	DIN rail mount
Dimensions.....	4.2" x 3.0" x 0.88" (105mm x 75mm x 22mm)
Approvals.....	USA - FCC Part 15.247 Canada - ISC RSS 210
Certifications.....	CSA/C & US - Class I, Div 2 (Groups A,B,C,D); UL - <i>pending</i>

Specifications subject to change without notice

Typical Applications

- ✓ Those common to all SCADA type RS232 data modems and extends to:
 - ◆ High EMI power generation environments
 - ◆ Heavily obstructed steel structures where multi-path is a serious problem
 - ◆ Environments populated with numerous radios where RF interference is an issue
 - ◆ Situations where data rate is not as critical as data integrity
- ✓ Designed for heavy industry, extraction, refining, conveying, processing, manufacturing, storage, municipal and rural water/wastewater - any applications where the movement of serial data through the air requires additional robustness and reliability from the RF platform.

For more information, including detailed wiring diagrams, please visit our website at www.omnexcontrols.com

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