



OVERVIEW

The SCADALink RIO900 is a license-free 900 MHz radio / RTU designed for general serial communications to smart devices such as Electronic Flow Meters (EFM) and Industrial I/O signals such as 4-20mA signals and Dry Contact Digital I/O. The RIO900 provides wireless RTU and I/O capabilities, failsafe mode and scheduled or Sleep Mode for low power operation.

FEATURES

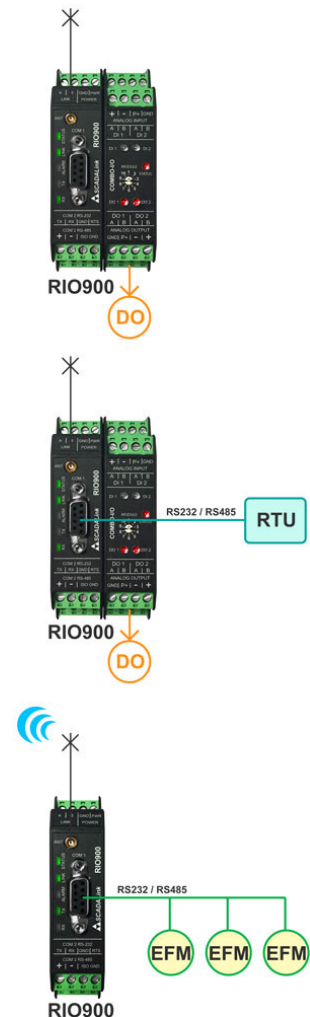
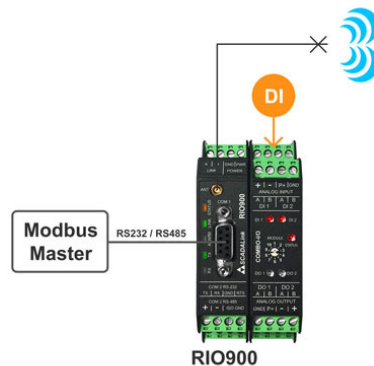
- 900Mhz License-free Spread Spectrum
- LOS Range >20 miles
- RS232/RS485 interface
- Modbus RTU Slave Addressable
- Interoperates with I/O Expansion Modules (AI4 / AO4 / DI8 / DO8 / A8D4 / COMBO-I/O)
- DIN Rail mount Package
- Class I Div 2 Certified for Hazardous locations

APPLICATIONS

- High Tank Level Shutdown
- Water Tank Level Control
- Pipeline Inlet Shutdown

SYSTEM DIAGRAM

The RIO900 features license-free 900 MHz spread-spectrum radio technology providing a range of up to 20 miles. The longer range can be achieved with RIO900 nodes configured as Repeaters.



SPECIFICATIONS

Radio Communications

Band	902-928 MHz License Free Spread Spectrum (North America) 915-928 MHz (Intl version)
Tx Power	1 mW – 1 Watt
Rx Sensitivity	-110 dBm (@9600 bps)
RF Data Rate	9.6 or 115.2 Kbps
Range (LOS)	>20 miles
Antenna Connector	MCX

Interface

Input / Outputs	1 RS232, 1 RS232 / RS485
Serial	1200 – 115,200 Baud

Electrical

Input Voltage	+10 to 30VDC
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Power Consumption*

Peak Tx Current (@24VDC)	105mA
Rx Current (@24VDC)	6mA
Operating Mode	Scheduled or Periodic Sleep for Low Power Operation

(* – Does not include power consumption of I/O modules)

DIMENSIONS

L: 9mm x W: 23mm W x H: 116mm

Environmental

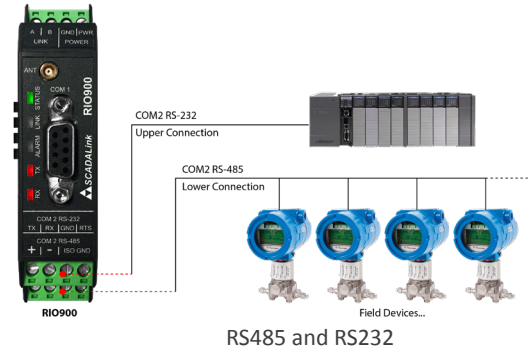
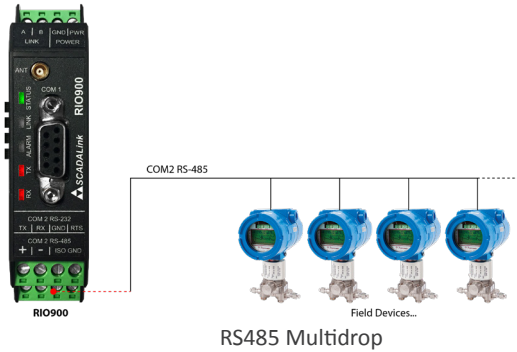
Operating Temperature	-40 to 85 Deg. C
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Certification

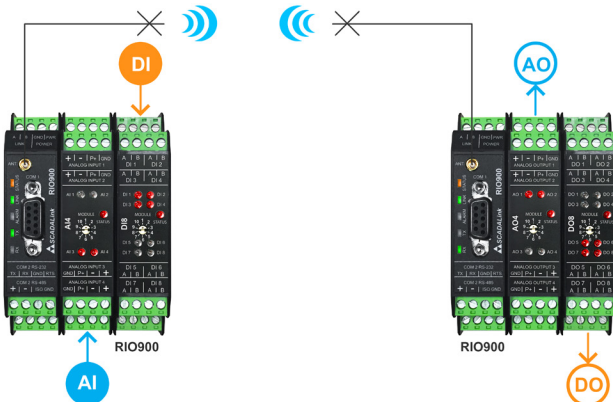
Regulatory	FCC, IC, ETSI
Hazardous Location	Class 1 Div 2, Group C, D T3C Suitable for use in: Class 1 Zone 2, IIB, T3

I/O TELEMETRY

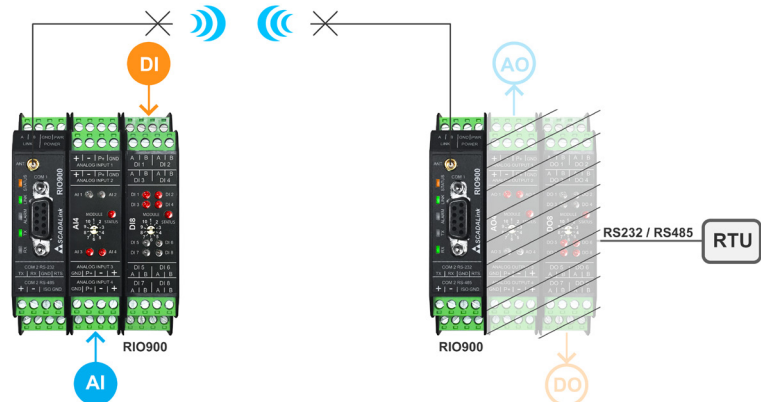
RS232 & RS485 Interface



Point to Point I/O Telemetry



Virtual I/O Mode



MODULAR I/O EXPANSION

I/O Expansion bus allows interfacing up to 10 SCADALink I/O Modules.

- AI4:** 4 Analog Inputs (4-20mA)
- AO4:** 4 Analog Outputs (4-20mA)
- DI8:** 8 Digital Inputs
- DO8:** 8 Digital Outputs (Relay)
- A8D4:** 4 Analog/ Digital Inputs, 4 Analog/ Digital/ Pulse Inputs / 4 Digital Outputs
- COMBO I/O**



ORDERING INFORMATION

Part Number: SCADALINK-RIO900

Unit with removable Terminal Blocks, 3 ft/ pigtail cable, R-SMA to N-Male