BENTEK SYSTEMS
SCADA & Telemetry Solutions

RIO100
Remote I/O RTU

The SCADALink RIO100 is a compact, low-power remote RTU designed for general serial communications to smart devices such as Electronic Flow Meters (EFM) and communicates industrial I/O signals such as 4-20mA signals and dry contact digital I/O.

The RIO100 provides RTU and I/O capabilities, failsafe mode, and scheduled or periodic sleep mode for low-power operation.

It can be connected to existing licensed radio network, spread spectrum radio network and cellular or satellite network to provide wireless access to field data using Modbus RTU protocol.

I/O modules can be attached to the SCADALink RIO100 to provide I/O capabilities; and the SCADALink RIO100 can be configured to function as an emergency shutdown system.

FEATURES

- Modbus RTU protocol or transparent mode
- RS232/RS485 interface
- Interoperates with SCADALink I/O modules
- Class I Div 2
- 9 to 30 VDC input voltage
- Industrial temperature: -40 to 85 Deg C

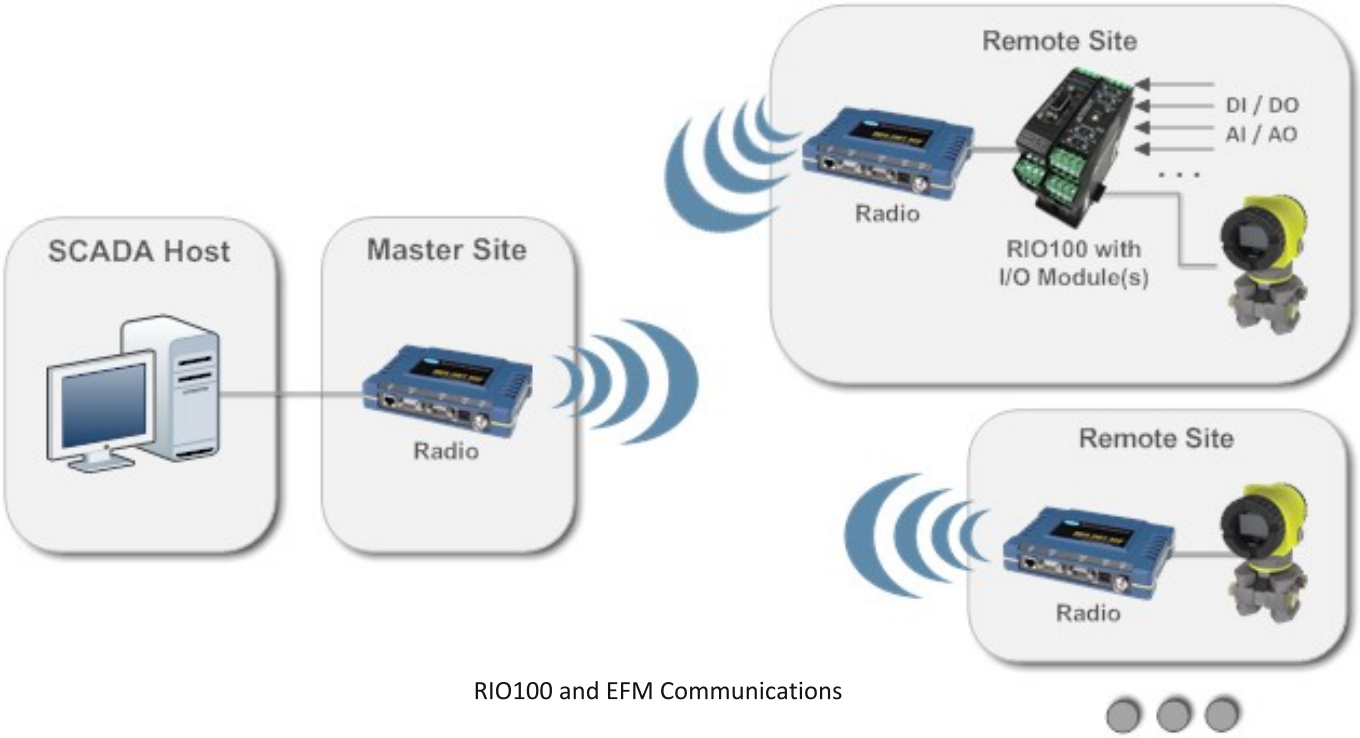
BENEFITS

- Compact low power remote RTU
- Expandable analog and digital I/O capabilities via I/O expansion bus
- Programmable sleep mode for low power operation
- Approved for use in hazardous locations
- Easily configurable via Windows interface

APPLICATIONS

- Remote well monitoring
- Tank level monitoring
- EFM communications

SYSTEM DIAGRAM



RIO100 and EFM Communications

SCADA LINK
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www.scadalink.com

BENTEK SYSTEMS
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RIO100
Remote I/O RTU

SPECIFICATIONS

GENERAL

Operating Temperature	-40 to 85 Deg.C
Mounting	30.5 mm DIN rail
Dimensions	114.5mm (H) x 22.6mm (W) x 99 mm (L)

ELECTRICAL

Input Voltage	9 to 30VDC
Peak Tx Current	105 mA (@24VDC)
Rx Current	6mA (@24VDC)
Sleep Current	1.5mA (@24VDC)
Power Modes	
Normal	Always on
Low Power	Programmable sleep period

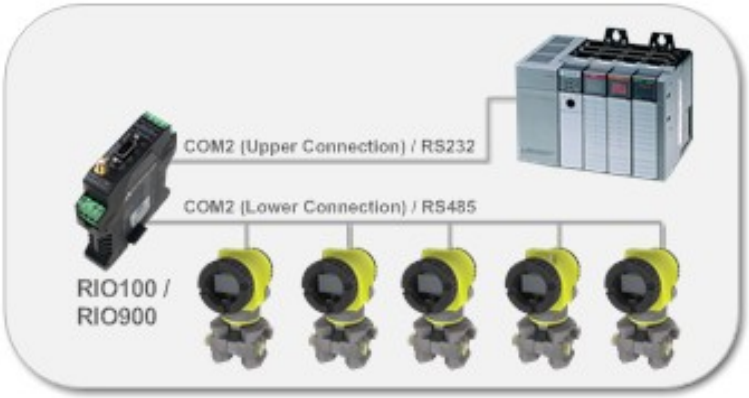
CERTIFICATIONS

Radio	FCC, IC, ETSI
Hazardous Location	Class I, Div 2 Group C, D T3C
	suitable for use in Class 1
	Zone 2, IIB, T3C

DATA COMMUNICATIONS

Data Rate	1.2 - 115.2 Kbps
Data Interface	1 RS232 (DB9 male)
	1 RS232 / RS485 (4 Pin terminal)
	5 Pin bus connector

APPLICATIONS



RS232 and RS485 communications

Communication to analog transmitters

ORDERING INFORMATION

NAME	DESCRIPTION
RIO100	Remote I/O RTU
RIO100-ESD	Remote I/O RTU with Emergency Shutdown
RIO900	Integrated Radio RTU
RIO900-ESD	Integrated Radio RTU with Emergency Shutdown

ACCESSORIES

NAME	DESCRIPTION
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
CAB-316-SMA	Jumper cable, SMA (M) to N (M), 3 ft., RG316

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