BENTEK SYSTEMS
SCADA & Telemetry Solutions

RIO100-ESD

Remote I/O RTU with Emergency Shutdown

The SCADALink RIO100-ESD is a specialized low-power RTU designed for emergency shutdown of Oil and Gas pumping systems such as:

- Well Production into Tank Batteries
- Pumping into Disposal and Injection Wells
- Source Well Pumping
- Source Water for Fracking Operations

Based on the RIO100, the SCADALink RIO100-ESD is a remote RTU preconfigured for emergency shutdown applications. The SCADALink RIO100-ESD integrates with existing radio networks to broadcast shutdown signals to multiple remote sites while simultaneously providing wireless access to field data over Modbus RTU protocol.

With the I/O module attachement, the SCADALink RIO100-ESD broadcasts the status of the I/O module through the existing radio network, causing a shutdown at remote sites to prevent emergency situations. The RIO100-ESD is simple to use with no programming required to setup the emergency shutdown functionality.

FEATURES

- Failsafe operation with configurable timeout
- Modbus RTU protocol or transparent mode
- RS232/RS485 interface
- Interoperates with SCADALink I/O modules
- Interoperates with existing SCADA traffic
- Class I Div 2
- Industrial temperature: -40 to 85 Deg C

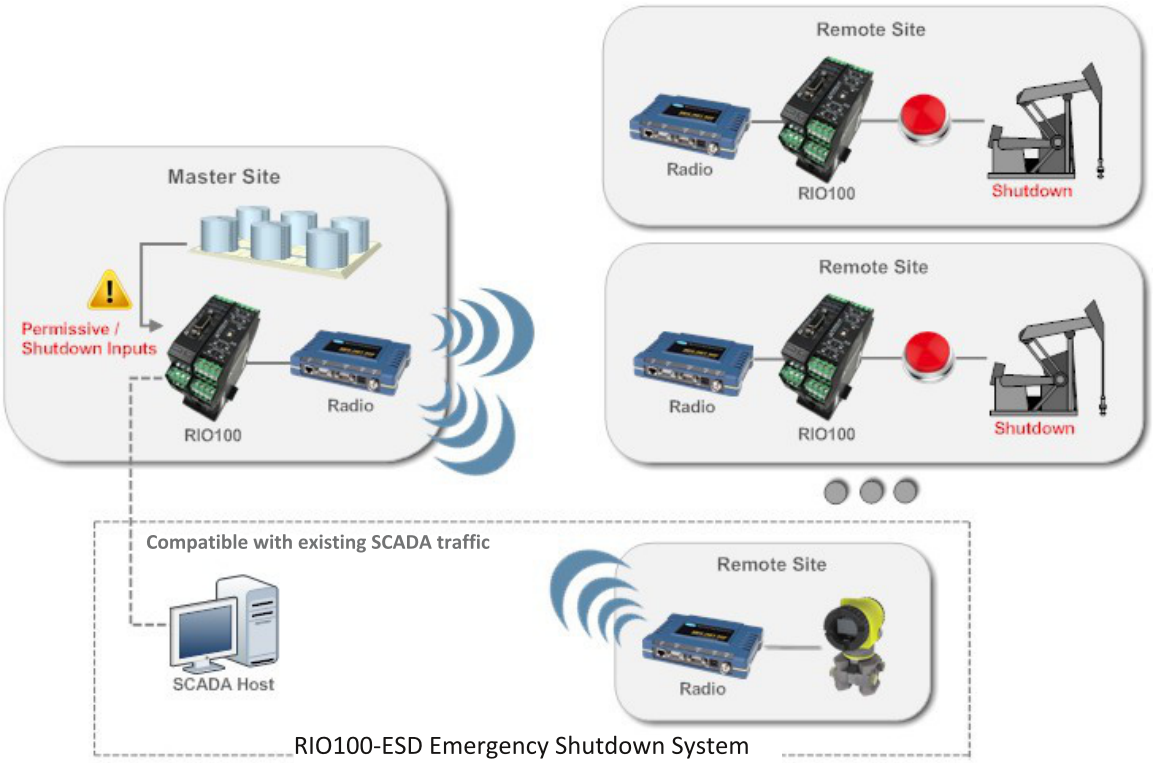
BENEFITS

- Preconfigured for Emergency Shutdown applications
- No programming required
- Integrates with SCADALInk SAT100 satellite modem
- Approved for use in hazardous locations
- Easily configurable via Windows interface

APPLICATIONS

- Well production into tank batteries
- Pumping into disposal and injection wells
- Source well pumping
- Source water for fracking operation

SYSTEM DIAGRAM



RIO100-ESD Emergency Shutdown System

SCADA LINK

#315 - 3750 46th Ave. S.E. Calgary, Alberta, Canada. T2B 0L1
Ph: (403) 243-5135 Fax: (403) 243-5165
www.scadalink.com

BENTEK SYSTEMS
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RIO100-ESD

Remote I/O RTU with Emergency Shutdown

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

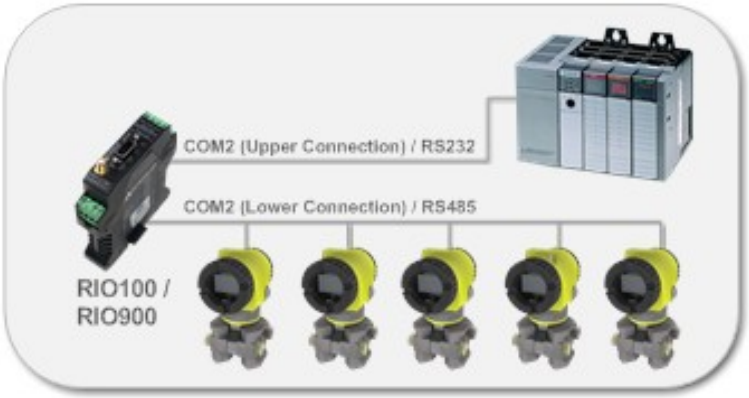
CERTIFICATIONS

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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