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 attachment, 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.

**APPLICATIONS**

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

**FEATURES**

- Fail-safe 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
**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

**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

**CERTIFICATIONS**
- Radio: FCC, IC, ETSI
- Hazardous Location: Class I, Div 2 Group C, D T3C, suitable for use in Class 1 Zone 2, IIIB, T3C

**APPLICATIONS**
- RS232 and RS485 communications
- Communication to analog transmitters

**ORDERING INFORMATION**

<table>
<thead>
<tr>
<th>NAME</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>RIO100</td>
<td>Remote I/O RTU</td>
</tr>
<tr>
<td>RIO100-ESD</td>
<td>Remote I/O RTU with Emergency Shutdown</td>
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<tr>
<td>RIO900</td>
<td>Integrated Radio RTU</td>
</tr>
<tr>
<td>RIO900-ESD</td>
<td>Integrated Radio RTU with Emergency Shutdown</td>
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**ACCESSORIES**

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<tr>
<th>NAME</th>
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<tbody>
<tr>
<td>A14</td>
<td>4 analog inputs (4-20mA)</td>
</tr>
<tr>
<td>AO4</td>
<td>4 analog outputs (4-20mA)</td>
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<tr>
<td>DB8</td>
<td>8 digital inputs</td>
</tr>
<tr>
<td>DO8</td>
<td>8 Digital outputs (relay)</td>
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<td>A8D4</td>
<td>4 analog / digital inputs</td>
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<tr>
<td></td>
<td>4 analog / digital / pulse inputs</td>
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<tr>
<td></td>
<td>4 digital outputs</td>
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<tr>
<td>CAB-316-SMA</td>
<td>Jumper cable, SMA (M) to N (M), 3 ft, RG316</td>
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