Palm-sized ISA100 Wireless gateway

Features

- Optimized for a small system
- Reduce system configuration steps
- Provide a host system with ISA100 Wireless functions via serial communication

Challenges and benefits

**Challenges**
- Want to try a wireless system but wireless systems in the market are over performance
- Setting up a wireless network requires expertise and time

**Benefits**
- Reduce system configuration steps
- Make launching a wireless system easier

Shortening setting up time

Using the gateway module with Yokogawa transmitters allows omitting part of the configuration of the transmitters and ISA100 Wireless gateway, reducing start-up time.

*1: Specify Tag Name and Network ID in Ordering Information when ordering

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**Conventional steps**

- Delivery of products
- Configuration of transmitters
- Configuration of wireless gateway
- Setting up the host system

**Reduced steps**

- Delivery of products
- Configuration of transmitters
- Configuration of wireless gateway
- Setting up the host system

Omitted
System configuration

Adding an isolated repeater between a host system and LN90 extends serial communication distance up to 1.2 km (4000 ft)*4.

*4: Result obtained with GX10/20 as a host system and MOXA TCC-120/120i as an isolated repeater. Your result may vary depending on hardware and environmental factors.

Application example

FN110 (Modbus Communication for PLC/RTU) specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network Topology</td>
<td>Star</td>
</tr>
<tr>
<td>Field Wireless Subnet</td>
<td>1 subnet</td>
</tr>
<tr>
<td>Field Wireless Device</td>
<td>Max. 20 devices (update rate: 2 to 3600 s) Max. 10 devices (update rate: 1 s)</td>
</tr>
<tr>
<td>Serial Communication</td>
<td>Mode: Half-duplex communication (RS-485) Speed: Max. 38400 bps Distance: Max. 20 m (dedicated cable)</td>
</tr>
<tr>
<td>Ambient Temperature Limits</td>
<td>Operating: -40 to 85°C (-40 to 185°F)</td>
</tr>
<tr>
<td>Degree of Protection</td>
<td>IP66, IP67, and Type 4X</td>
</tr>
</tbody>
</table>

LN90 specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication Mode</td>
<td>Half-duplex communication (RS-485)</td>
</tr>
<tr>
<td>Communication Speed</td>
<td>Max. 38400 bps</td>
</tr>
<tr>
<td>Ambient Temperature Limits</td>
<td>Operating: -40 to 70°C (-40 to 158°F)</td>
</tr>
<tr>
<td>Input Voltage Range</td>
<td>10 to 30 VDC</td>
</tr>
</tbody>
</table>

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