IEC 60870-5-101 Slave to PROFIBUS DP Master Gateway
5104-101S-PDPM

The 101S-PDPM modules are the ideal solution for the many applications where IEC 101 Slave connectivity can be used to integrate a PROFIBUS slave device into a system. The IEC60870-5-101 Slave gateway is a powerful module designed with Slave support, enabling easy connection to an IEC 101 master device. In combination with the PROFIBUS DP Master support, the module provides a very powerful interface to the many PROFIBUS DP slave devices which are in use in the industrial marketplace today. Applications for the module are found in most industries, especially Manufacturing, Oil and Gas, Electrical Power and Food Processing.

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DISCONTINUED
IEC 60870-5-101 Slave to PROFIBUS DP Master Gateway
5104-101S-PDPM

The ProLinx IEC60870-5-101 Slave to PROFIBUS DP Master Gateway creates a powerful connection between devices on an IEC 101 network and a PROFIBUS slave device. This stand-alone DIN-rail mounted protocol gateway provides one PROFIBUS DP Master configurable DB9F port and one IEC 101 Slave configurable serial port.

The IEC 60870-5-101 Slave protocol driver supports Slave implementations of the protocol. The serial port is user-configurable, providing a very powerful and flexible host or device interface solution.

The PROFIBUS DP Master protocol driver supports Master implementations of the protocol on either a Mono-Master or Multi-Master network.

IEC 60870-5-101 Slave
The 101S module acts as an input/output module between the IEC 60870-5-101 and other protocols and networks, as well as several proprietary interfaces. General specifications include:

- User-definable module memory usage
- Storage of IEC time used in module is available in the database
- Protocol implementation conforms to the IEC 60870-5-101 specification with fully configurable parameters
- Priority Queues
- Invalid Bit Monitoring
- Supports Balanced and Unbalanced Mode
- Supports CP24 and CP56 time formats for events
- Event generation configurable per point or data type

General Specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication parameters</td>
<td>Baud Rate: 110 to 19,200 baud</td>
</tr>
<tr>
<td></td>
<td>Stop Bits: 1 or 2</td>
</tr>
<tr>
<td></td>
<td>Data Size: 5 or 8 bits</td>
</tr>
<tr>
<td></td>
<td>Parity: None, Even, Odd</td>
</tr>
<tr>
<td></td>
<td>RTS Timing Delays: 0 to 65535 ms</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IEC 60870-5-101 Slave Configurable Parameters</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data link address length</td>
<td>Common Address of ASDU length</td>
</tr>
<tr>
<td>Common Address of ASDU length</td>
<td>Inform. Object Address length</td>
</tr>
<tr>
<td>Select/Operate Timeout</td>
<td>Event Scan delay</td>
</tr>
<tr>
<td>Use Balanced Mode</td>
<td>Use Balanced Mode</td>
</tr>
<tr>
<td>Short Pulse Time</td>
<td>Short Pulse Time</td>
</tr>
<tr>
<td>Long Pulse Time</td>
<td>Long Pulse Time</td>
</tr>
<tr>
<td>Time DB Offset</td>
<td>Time DB Offset</td>
</tr>
</tbody>
</table>

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PROFIBUS DP Master
The PROFIBUS Master protocol driver exists as a single port implementation. The driver can be configured as a Class 1 PROFIBUS Master to continuously interface with other PROFIBUS slave devices. The unit is also used for configuration of the nodes on the PROFIBUS network. It provides access to both standard as well as extended diagnostic information.

General Parameters
<table>
<thead>
<tr>
<th>Specification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Serial Ports</td>
<td>RS-232/422/485</td>
</tr>
<tr>
<td></td>
<td>RS-232 handshaking configurable</td>
</tr>
<tr>
<td></td>
<td>RS-422/485 screw termination included</td>
</tr>
<tr>
<td>Serial Port Isolation</td>
<td>2500V RMS port signal isolation per UL 1577</td>
</tr>
<tr>
<td></td>
<td>3000V DC min. port to ground and port to logic power isolation</td>
</tr>
<tr>
<td>Shipped with Each Unit</td>
<td>Mini-DIN to DB-9M serial cables</td>
</tr>
<tr>
<td></td>
<td>4 ft RS-232 configuration cable</td>
</tr>
<tr>
<td></td>
<td>2.5mm screwdriver</td>
</tr>
<tr>
<td></td>
<td>CD (docs and Configuration utility)</td>
</tr>
<tr>
<td></td>
<td>RS-422/485 DB-9 to Screw Terminal Adaptor (1 or 4, depending on ports)</td>
</tr>
</tbody>
</table>

PROFIBUS Master
Command List
- Read Diag
- Global Cmd
- Read Cntrs
- Reset Cntrs

Node address
0 - 125 – software selectable.

Status Data
Error codes, counters and port status available per configured slave on the network.

General Specifications
The ProLinx Communication Modules provide connectivity for two or more dissimilar network types. The modules, encased in sturdy extruded aluminum, are stand-alone DIN-rail mounted protocol gateways, providing communication between many of the most widely used protocols in industrial automation today.

Hardware Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Supply</td>
<td>24 VDC nominal</td>
</tr>
<tr>
<td></td>
<td>18 to 36 VDC allowed</td>
</tr>
<tr>
<td></td>
<td>Positive, Negative, GND Terminals</td>
</tr>
<tr>
<td></td>
<td>2.5 mm screwdriver blade</td>
</tr>
<tr>
<td>Current Load</td>
<td>500 mA max@ 24 VDC</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>–20 to 50°C (–4 to 122°F)</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>–40 to 85°C (–40 to 185°F)</td>
</tr>
<tr>
<td>Relative Humidity</td>
<td>5 to 95% (non-condensing)</td>
</tr>
<tr>
<td>Dimensions</td>
<td>Standard: 5.20H x 2.07W x 4.52D in. (13.2cmH x 5.25cmW x 11.48cmD)</td>
</tr>
<tr>
<td></td>
<td>Extended: 5.20H x 2.73W x 4.52D in. (13.2cmH x 6.934cmW x 11.48cmD)</td>
</tr>
<tr>
<td>LED Indicators</td>
<td>Power and Module Status</td>
</tr>
<tr>
<td></td>
<td>Application Status</td>
</tr>
<tr>
<td></td>
<td>Serial Port Activity LED</td>
</tr>
<tr>
<td></td>
<td>Serial Activity and Error LED Status</td>
</tr>
<tr>
<td>Configuration Serial Port</td>
<td>DB-9M RS-232 only</td>
</tr>
<tr>
<td>Ethernet Port (Ethernet modules only)</td>
<td>RJ45 Connector</td>
</tr>
<tr>
<td></td>
<td>Link and Activity LED indicators</td>
</tr>
</tbody>
</table>

ProSoft Configuration Builder
ProSoft Configuration Builder (PCB) provides a quick and easy way to manage module configuration files customized to meet your application needs. PCB is not only a powerful solution for new configuration files, but also allows you to import information from previously installed (known working) configurations to new projects.

Additional Products
ProSoft Technology offers a full complement of hardware and software solutions for a wide variety of industrial communication platforms.