EtherNet/IP to GE Ethernet Global Data Gateway
5201-DFNT-EGD

The DFNT-EGD modules are the ideal solution for the many applications where EtherNet/IP connectivity can be used to integrate GE Ethernet Global Data devices into a system. The EtherNet/IP protocol is one of the primary connectivity tools to the different Rockwell Automation platforms. The Explicit Messaging aspect of the protocol (only) has been implemented in the ProLinx units to provide the data transfer link between the ProLinx units and the Rockwell Automation hardware. Implicit Messaging (I/O communications) is not supported. In combination with the GE Ethernet Global Data device support, the module provides a very powerful interface to the many EtherNet/IP 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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EtherNet/IP to GE Ethernet Global Data Gateway

The ProLinx EtherNet/IP to GE Ethernet Global Data Gateway creates a powerful connection between EtherNet/IP and GE Ethernet Global Data networks. The module provides one EtherNet port. The EtherNet/IP protocol driver supports the Explicit Messaging implementation of the protocol. User-configurable as both a Client and a Server, the EtherNet/IP port is a very powerful data transfer tool. The EGD modules offer one-to-one or one-to-many interconnect scenarios. Data is exchanged between devices and/or networks using a shared common. This common database provides the "backbone" communications for various field devices using different networks.

EtherNet/IP

The EtherNet/IP protocol is one of the primary connectivity tools to the different Rockwell Automation platforms. The Explicit Messaging aspect of the protocol (only) has been implemented in the ProLinx units to provide the data transfer link between the ProLinx units and the Rockwell Automation hardware.

General Protocol Information

**Messaging**
- PCCC on CIP
- Explicit Messaging supported

**Miscellaneous**
- 125 word read and write data lengths
- Floating point data supported

EtherNet/IP Server Specifications

In Server mode, the module accepts commands from one or more clients to read/write data stored in the module’s internal registers.

**EtherNet/IP Server Specifications**

**Connections**
- Five independent TCP server sockets permit remote clients to interact with all data contained in the module.

**Data File**
- Data Table File Start - Fixed at N10
- Data Table File Size - 100 or 1000 words

**CIP Services Supported**
- 0x4C - CIP Data Table Read
- 0x4D - CIP Data Table Write

EtherNet/IP Client Specifications

In Client mode, the module controls the read/write data transfer between the gateway and other EtherNet/IP devices. Data transfer can be initiated and executed without any ladder programming being required in the Rockwell Automation hardware.

**EtherNet/IP Client Specifications**

**General**
- One client

**Command List**
- Support for 100 commands, each configurable for command, IP address, register to/from addressing and word/bit count.

**Polling of command list**
- User configurable polling of commands, including disabled, continuous and on change of data (write only).
EGD

GE Fanuc Automation and GE Drive Systems developed an Ethernet Global Data, or EGD, exchange for PLC and computer data in 1998. GE Ethernet Global Data (EGD) offers versatility where a mix of control devices requires cooperation with each other. This involves sharing of information across the applications regardless of device or network type, often at high speed, and with high reliability. Bandwidth utilization is optimized by using efficient communication methods. High reliability means fewer communication failures and having the ability to detect failures upon occurrence. Particular emphasis is delivered for applications requiring periodic or frequent updates and time synchronization of devices. The protocol supports Unicast, Broadcast and Multicast group messaging. Efficiency is based on the fact each device on the network can produce these types of messages and each device determines which of these messages to consume.

The module supports the following functions specified in the EGD protocol:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Retrieve Configuration Request (example provided)</td>
</tr>
<tr>
<td>4</td>
<td>Retrieve Configuration Response (example provided)</td>
</tr>
<tr>
<td>7</td>
<td>Summary Request</td>
</tr>
<tr>
<td>8</td>
<td>Summary Response</td>
</tr>
<tr>
<td>9</td>
<td>Capabilities Request</td>
</tr>
<tr>
<td>10</td>
<td>Capabilities Request</td>
</tr>
<tr>
<td>15</td>
<td>Statistics Request</td>
</tr>
<tr>
<td>16</td>
<td>Statistics Response</td>
</tr>
<tr>
<td>18</td>
<td>Command NAK</td>
</tr>
<tr>
<td>32</td>
<td>Read Request</td>
</tr>
<tr>
<td>33</td>
<td>Read Response</td>
</tr>
<tr>
<td>34</td>
<td>Write Request</td>
</tr>
<tr>
<td>35</td>
<td>Write Response</td>
</tr>
<tr>
<td>36</td>
<td>Masked Write Request</td>
</tr>
<tr>
<td>37</td>
<td>Masked Write Response</td>
</tr>
</tbody>
</table>

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>
</table>
| Power Supply           | 24 VDC nominal  
|                        | 18 to 32 VDC allowed  
|                        | Positive, Negative, GND Terminals  
|                        | 2.5 mm screwdriver blade |
| Current Load           | 500 mA max@ 32 VDC max |
| Operating Temperature  | -20 to 50°C (-4 to 122°F) |
| Storage Temperature    | -40 to 85°C (-40 to 185°F) |
| Relative Humidity      | 5% to 95% (non-condensing) |
| Dimensions             | Standard: 5.20H x 2.07W x 4.52D in. (13.2cmH x 5.25cmW x 11.48cmD)  
|                        | Extended: 5.20H x 2.73W x 4.52D in. (13.2cmH x 6.93cmW x 11.48cmD) |

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


Ordering Information

To order this product, please use the following:

5201-DFNT-EGD EtherNet/IP to GE Ethernet Global Data Gateway

To place an order, please contact your local ProSoft Technology distributor. For a list of ProSoft distributors near you, go to http://www.prosoft-technology.com

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