Brad® PROFINET to Modbus Serial Gateway

The Brad® PROFINET to Modbus Serial Gateway provides a quick and cost effective communication solution between controller and Modbus field devices.

**Features and Benefits**

<table>
<thead>
<tr>
<th>PROFINET Device to Modbus serial protocol conversion</th>
<th>Enables connection between controller and devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manages up to 50 Modbus Read and Write commands</td>
<td>Maximizes capability. Minimizes costs through enhanced command capacity</td>
</tr>
<tr>
<td>Serial RS232 or RS485 switch selectable</td>
<td>Accelerates and simplifies configuration of the electrical interface</td>
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<tr>
<td>Integrated 2-port Ethernet switch</td>
<td>Permits Ethernet daisy-chain topology. Eliminates extra cost for a switch</td>
</tr>
<tr>
<td>Up to 1000 Input bytes and 1000 Output bytes on PROFINET</td>
<td>Provides significant IO mapping memory</td>
</tr>
<tr>
<td>Modbus Master or Slave (RTU or ASCII) protocols supported</td>
<td>Allows the gateway to behave as a Master or Slave on the network</td>
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<td>Easy-to-integrate configuration by GSD file (no configuration tool needed)</td>
<td>Eliminates the need for a configuration tool and prior experience in PROFINET technology</td>
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<td>Automatic configuration after each PROFINET PLC connection</td>
<td>Eases replacement downtime</td>
</tr>
<tr>
<td>Full diagnostics through face mounted LEDs</td>
<td>Enables user to perform monitoring and diagnostic functions</td>
</tr>
<tr>
<td>Commands are Cyclic, Change-of-State or Once-Triggers</td>
<td>Improves flexibility by enabling several I/O data exchange behaviours according to the user application</td>
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**Applications**

Factory Automation
- Automotive Assembly Lines
- Automotive Body Shop
- Material Handling
- Conveying
- Logistic
- Scada / HMI

Process Control
- Wastewater Treatment
- Agro-Food Industry
- Oil and Gas
- Pharmaceutical

Machine Builders
- Robot Controllers
- Complex Machines
- CNC Machines

Robot Controller

Pharmaceutical

Supervisory Control and Data Acquisition (SCADA)

Material Handling

Complex Filling Machine with Embedded Controller
Brad® PROFINET to Modbus Serial Gateway

Specifications

PHYSICAL CHARACTERISTICS
Case: Plastic with a hatch on the front side.
IP20-DIN rail fastening
Size: 120 x 100 x 23 mm
Weight: ~ 130g
Temperature: Operating: 0°C to +55°C
Non-operating: -25°C to +70°C
Humidity: Max. 80%
Ingress Protection: IP20
Power Supply: 14-30V DC
Indicator (6 LEDs):
1 - Power ON
2 - PROFINET bust state
3 - Modbus bus state
4 - RUN
5 - TxD Modbus
6 - RxD Modbus

Protection Polarity inversion: Yes
Protection Short-circuits: Yes
CE Compliance: Yes

COMMUNICATION PORTS
PROFINET DEVICE:
Baud rate: 10/100 Mbps (auto-detection)
Connector: 2 x RJ45, integrated switch
Diagnostic: 27 bytes of extended diagnostic
(Slave Diag)
Input/Output Bytes: Maximum of 1000
Isolation: 1 kV
Protocol: LLDP, ARP, ICMP, UDP, TCP, SNMP
Technology: ASIC
Others: Sync, Freeze

SERIAL Modbus & Free messaging
Commissioning: Done from the PROFINET configuration tool by using GSD parameters
Baud rate: 1200, 2400, 9600, 19200, 38400, 57600, 115200 baud
Protocol: Modbus RTU or ASCII: Implemented functions 1, 2, 3, 4, 5, 6, 7, 15, 16, 23
Nb of Modbus commands: Up to 50
Frame trigger: Cyclic, on change, both
Nb of accessible registers (Maximum of 150)
1-125 read registers
1-125 write registers

Ordering Information

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<th>Order No.</th>
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<th>Format</th>
<th>Protocols</th>
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<td>112034-5004</td>
<td>DRL-EPS-SRM</td>
<td>In cabinet IP20</td>
<td>PROFINET, Modbus Serial</td>
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