Brad® PROFINET to Modbus Serial Gateway

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

Features and Benefits

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

PROFINET to Modbus
Serial Gateway

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

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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, IMCP, 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

Order No.	Engineering No.	Format	Protocols
112034-5004	DRL-EPS-SRM	In cabinet IP20	PROFINET, Modbus Serial

Order No.	Engineering No.	Format	Protocols
112026-0013	DRL-DPS-SRM	In cabinet IP20	PROFIBUS, Modbus Serial

www.molex.com/link/bradnics.html