

# PROFIBUS to Modbus Serial Gateway

**molex**

The gateway for PROFIBUS provides a quick and cost-effective solution to connect a PLC controller to field devices on the Modbus Serial protocol without requiring complex training, experience or a difficult, conventional configuration tool

## Features and Benefits

### Transparent Mode

Transparent Mode eliminates the Modbus Master/Slave concept, reducing need for additional equipment

### Easy Integration

Can be integrated into the Master without needing a line of code

### Well Suited For Simple Network Extensions

Automatic reconfiguration after replacement by the PROFIBUS Master

### DPV1 Functionality

A PLC can trigger a Modbus request on demand

## Applications

### Industrial Automation

#### Factory Automation

- Automotive assembly lines
- Automotive body shops
- Material handling
- Conveying
- Logistics

#### Process Control

- Wastewater treatment
- Agro food industry
- Oil and gas
- Pharmaceutical

#### Machine Builders

- Robot controllers
- Complex machines
- CNC machines



### Manages up to 20 Modbus Slaves

Handles up to 20 Modbus Read and Write commands with Cyclic, Change of State or Once triggers

### Minimal Configuration

Easy-to-use configuration by GSDML file (no configuration tool needed)



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Assembly Lines



Oil and Gas

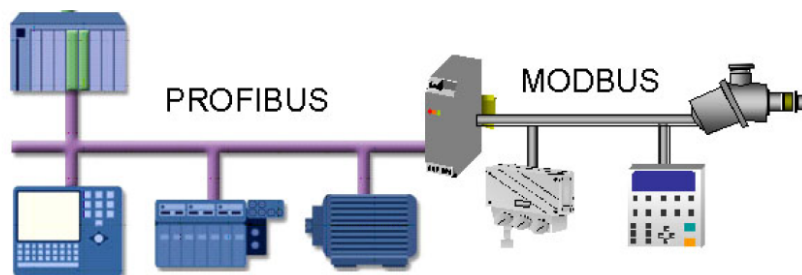


Robot Controllers

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## Typical Automation Architecture



## Specifications

### COMMUNICATION PORTS

PROFIBUS DP-V0 Slave  
Baud rate: 9.6 kbps to 12 Mbps (auto-detection)  
Connector: Sub-D9 female  
Diagnostic: 27 bytes of extended diagnostic (Slave\_Diag)  
Input/output bytes: 0 to 244, maximum of 300  
Technology: ASIC  
Others: Sync, freeze

### MODBUS SERIAL AND FREE MESSAGING

Commissioning: Done from the PROFIBUS configuration tool (via scroll-down menus) by using GSD parameters  
Baud rate: 0.6 to 57.6 Kbps  
Protocol: RTU or ASCII  
No. of addressable Slaves: 20  
No. of frames: 1 to 20 different  
Frame trigger: Cyclic, on change, once

No. of accessible registers per scenario:

- 1 to 122 read registers
- 1 to 122 write registers

Connector: Open connector 3 contacts, male  
Switching RS232/485: Configurable by switch  
Terminator resistor: 120 ohms by switch

Implemented functions:

- 3 – Multi-register read
- 4 – Multi-register read
- 5 – Single Boolean writing
- 6 – Single register write
- 7 – Read status
- 16 – Multi-register write
- 23 – Multi-register read/write (slave mode only)

Other – Open command through Pass-Frame mechanism

### ELECTRICAL

Power supply voltage (max.): 24V DC (1.5W)

### PHYSICAL

Housing material: Plastic  
Mounting option: IP20 DIN rail fastening  
Weight: Approx. 130g  
Length: 120mm  
Width: 100mm  
Height: 23mm  
Operating temperature: 0 to +55°C  
Non-Operating temp.: -25 to +70°C  
Max. humidity: 80%  
Ingress protection: IP20  
LED indicators: 6  
Polarity inversion protection : Yes  
Short circuit protection: Yes

### REFERENCE INFORMATION

CE compliance: Yes

## Ordering Information

Series No.	Engineering No.	Description
<u>112026-0031</u>	DRL-DPS-SRM-01	Brad PROFIBUS to Modbus Serial Gateway

[www.molex.com/link/profibus.html](http://www.molex.com/link/profibus.html)

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