

# HiD3000 MBRT Communication Gateway Modbus RTU



## Application

The communication gateway provides a link between the internal communication bus of the termination board and the external fieldbus, Modbus RTU.

The module functions as a slave device on Modbus, but also as the master device for the bus of the I/O interface modules. Cyclic reading and writing operations with the I/O modules are performed under the control of the gateway according to the configuration parameters which have been loaded from the host control system or plc via the fieldbus. The gateway module maintains an image of the field I/O data and supports the fault handling, calibration and configuration of the I/O modules.

A single gateway can be used to connect with a single fieldbus and when required a second gateway can be applied to provide redundant communications or just redundant media.

## Specification

### DC Supply

**CURRENT CONSUMPTION:** 150 mA at 24 V.

**POWER DISSIPATION:** 3 W at 24 V.

### Local Bus

**PROTOCOL:** clock synchronous, full duplex, SPI compatible.

**CLOCK FREQUENCY:** 700 KHz.

**TOPOLOGY:** single master, up to 16 slave devices.

**LOCAL BUS SCAN TIME:** digital I/O modules 10 msec., analog I/O modules 20 msec., temperature & pulse I/O modules 80 msec. (for any number of I/O modules up to 16).

### External fieldbus

**PROTOCOL:** Modbus RTU.

**BUS SPEED:** 600 - 1,200 - 2,400 - 4,800 - 9,600 - 19,200 - 38,400 - 57,600 - 115,200 Baud.

**TOPOLOGY:** gateway works as Modbus slave to any Modbus master. Two gateways can be used in one I/O station for redundancy.

### Service port

**FORMAT:** RS232 local service port.

**DATE RATE:** 14,400 Baud.

### Isolation

500 Vrms between supply circuit and local Bus to Modbus and RS232.

### Other Parameters

Automatic switch on redundant gateway without loss of I/O data.  
Software configuration of output values in case of Modbus loss.  
Modbus slave address configurable by rotary switches.

**LED INDICATORS:** Power ON (green). Module fault (red).  
Supply supervisor (red). Parameters/configuration error on I/O modules (red). Gateway active/standby on Modbus (yellow).  
Gateway active/standby on localbus (yellow).  
Data exchange on Modbus (yellow). Data exchange on RS232 (yellow).

- Communication link with fieldbus.
- Modbus at all standard baud-rate up to 115,2 kBd.
- Modbus slave function.
- Local bus master function.
- Fieldbus redundancy with second gateway.

**ORDER INFORMATION: PART NUMBER 186318.**

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