mbGate DP

Simple connection of PROFIBUS DP Slave Devices to Modbus Control Systems via Internal I/O Mapping

- Prepared for Integration in Standard Engineering and Plant Asset Management Tools
- Simple Configuration of Device Mapping via Built in Web Interface
- Compatible with Products of Leading PLC Manufacturers
- MODBUS/TCP Redundancy

Configuration, Parameterization and Plant Asset Management Using Standard Industry Tools
- Supports major Modbus engineering tools such as Schneider Unity Pro or Siemens TIA Portal
- Included CommDTM allowing use in FDT/DTM frame applications
- EDD-based device parametrization using Siemens Simatic PDM

Direct Connectivity to PROFIBUS Segments
- Single access point to PROFIBUS DP segment from Modbus TCP networks
- Acting as Modbus TCP Server and PROFIBUS DP Master
- Support of one PROFIBUS DP segment

Key Component for Transition to State-of-the-Art Technology
- Re-use of existing PROFIBUS DP segment without requiring modification
- Easy integration into PLC programming software

MODBUS/TCP Redundancy
- Supports the use of two redundant PLCs and two redundant gateways
- Easily enabled via licensing
- Full control of redundant operation mode via engineering and PLC
## Technical Data

### Hardware
- **Processor**: Altera Cyclone V SoC with dual-core ARM Cortex-A9
- **Status LEDs (Gateway)**: PWR (power supply), RUN (operation), ERR (error), CFG (configuration and update)
- **Status LEDs (Fieldbus)**: SF (system fault), BF (bus fault)

### Interfaces and Connectors
- **Ethernet**: 2 * IEEE 802.3 100BASE-TX / 10BASE-T, managed Ethernet switch for daisy chain topology
- **Connectors**: RJ45
- **Protocol**: Modbus TCP Server
- **RESTful API interface for device configuration**
- **PROFIBUS DP-V0 / V1**: 1 Segment with RS485 Physical Layer, Connector: 9-pin Sub-D socket

### Physical Properties
- **Dimensions (H x W x D)**: 100 mm x 35 mm x 115 mm
- **Weight**: Approx. 0.25 kg
- **Power Supply**: 18 VDC ... 32 VDC; SELV/PELV power supply mandatory
- **Typical input current**: 200 mA, maximum input current: 1 A (allowing for in-rush current at switch-on)
- **Power Loss**: 5 W
- **Operating / Storage Temperature**: -40 °C ... +60 °C / -40 °C ... +85 °C
- **Relative Humidity**: 10 % ... 95 %, non-condensing
- **Cooling**: Convection, no fan
- **Coating**: Conformal coating based on ANSI / ISA-S71.04 G3
- **Mounting**: DIN rail 35 mm
- **Protection Class**: IP20

## Scope of Delivery
- **Hardware**: mbGate DP Gateway
- **Documentation**: On Website

## Order Numbers
- **GCA-EN-024806**: mbGate DP, Modbus TCP to PROFIBUS DP Gateway. Supports 1 PROFIBUS DP segment (RS485).

## Additional Products and Services
- **LRL-DY-134501**: dataFEED OPC Suite, Version 4.01 and higher, including all supported PLC protocols, support for OPC UA, access for any number of dataFEED OPC Tunnel Clients, for simultaneous access to a total of up to 100 OPC UA Servers, OPC Servers and OPC Tunnel Servers, and many more functionalities such as Database and File Access, Data Exchange, Optimizer, Concentrator and Bridge
- **GCA-EL-024802**: mbGate PA, Modbus TCP to PROFIBUS PA Gateway. Supports up to 2 PA segments (up to 32 PA devices).
- **GCA-EL-024804**: mbGate PA, Modbus TCP to PROFIBUS PA Gateway. Supports up to 4 PA segments (up to 64 PA devices).
- **GCA-EN-024808**: mbGate PB, Modbus TCP to PROFIBUS Gateway. Supports 2 PA segments (up to 32 PA devices, MBP physical layer) and 1 PROFIBUS DP segment (RS485).

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