GCP-MG

Modbus gateway with Ethernet for Woodward GCP-30 genset controls and LS 4 controls

designed for GCP-31/32

designed for LS 4

EtherNet

Modbus

CAN

Monitor & control your power station equipment

GCP-MG is a next-generation Modbus/CAN gateway specifically designed to interface Woodward's GCP-30 series genset controls (GCP-31, GCP-32) and LS 4 circuit breaker controls with Modbus networks. The GCP-MG gateway has been developed in cooperation with Woodward to ensure the highest possible degree of interoperability with Woodward equipment.

The gateway features CAN, serial RS-232 and RS-485 ports as well as an Ethernet port and can be mounted on a DIN rail. On the CAN side it implements the Woodward CAL protocol to connect to the GCP controls. On the serial ports and on Ethernet it implements a Modbus server (Modbus RTU and Modbus/TCP) and accepts connections from Modbus master devices like PLCs and SCADA systems.

Usage and configuration of the gateway is simple and conveniently performed using a web browser which connects to the embedded web server.

Possible Applications:

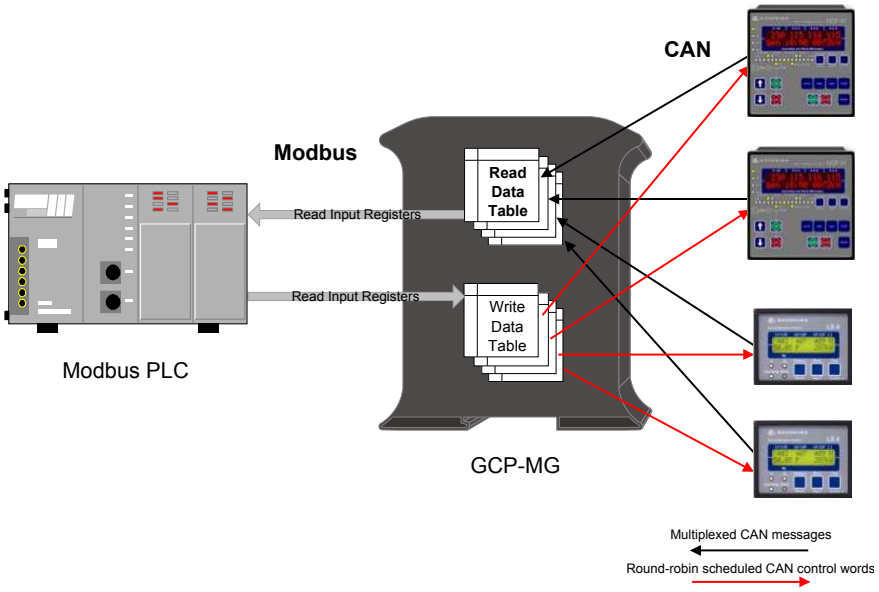
- PLC connection
- Operator panel interfacing
- HMIs
- SCADA integration
- Power station automation
- Gen set control
- Remote control & monitoring
- Data logging

Features

- **Modbus/TCP (Ethernet)**
- **Modbus RTU (RS-232 or RS-485, software configurable)**
- **Up to 16 GCP-30 and 8 LS 4**
- **Full support of option SB03 (Cat CCM) and option SC06 (MTU MDEC)**
- **GW4 backward compatible Modbus register layout**
- **Dedicated Modbus slave ID for each GCP-30 and LS 4 control**
- **Complete data set of one GCP unit can be read with a single Modbus transaction**
- **Integer/Exponent value pairs for voltages, power and currents are additionally represented as 32-bit floating point registers**
- **Support of Modbus function codes 03, 04, 06 and 16**
- **Concurrent Modbus serial line and Modbus/TCP connection**
- **Embedded web server for easy configuration and commissioning using a web browser**
- **Firmware upgradeable via**

GCP-MG

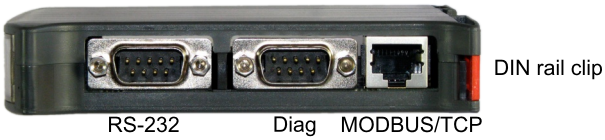
Usage



Order Information

Model number	Configuration
GCP-MG	Gateway with Ethernet, RS-232, RS-485, CAN interfaces in DIN rail enclosure

Connections



Specifications

Interfaces
1 Ethernet
2 Serial ports
  1 RS-232 or RS-485 Modbus, software configurable
  1 RS-232 Diagnostics
1 CAN

User interface
- Power, Ethernet, Device & Modbus/CAN Status LEDs
- Web browser interface for Monitoring & Configuration

Ethernet port
- IEEE 802.3i 10BASE-T
- Modbus/TCP Slave (2 concurrent connections)
- IP, TCP, HTTP, ARP, TFTP
- 1.5 kV galvanic isolation

RS-485 Modbus port
- EIA-485-A, 2-wire
- 300-115200 bps
- Up to 32 nodes
- Modbus RTU Slave protocol

RS-232 Modbus port
- EIA-232-F DTE
- DE9M with EIA-574 pinout
- 300-115200 bps
- Modbus RTU Slave protocol

CAN port
- DE9M with CiA DS-102 pinout
- ISO 11898 physical layer
- 125 kBit/s
- Addesses up to 24 nodes
- CAL 2.0 protocol

Power requirements
- 10-30 V DC, 750 mW
- 30 mA typical @ 24 V DC

High availability
- Watchdog supervision
- Brown-out detection

Electromagnetic compatibility
- Emissions CISPR 22/EN 55022 (Class A)
- Immunity EN55024
- Electrostatic discharge EN61000-4-2
- Radiated RF EN61000-4-3
- Fast transients EN61000-4-4
- Conducted RF EN61000-4-6

Environment
- 0° to 60 °C / 32 to 140 °F operating
- -25° to 80 °C / -13 to 185 °F storage
- 10 to 95% humidity, non-condensing

Form factor / enclosure
- Self-extinguishing PC/ABS (UL 94-V0)
- 35 mm DIN rail mountable
- IP 20 / NEMA Type 1
- Convection cooling
- 101 x 22.5 x 120 mm / 3.98 x 0.886 x 4.72 in
- 0.13 kg / 0.287 lbs

Compliance
- C-Tick
- CE, RoHS
- FCC Part 15 (Class A)
- ICES-003 (Class A)

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Professional Fieldbus Connections