Model Information

Features

- Controls 8 RS232/422/485 devices located virtually anywhere via Ethernet, WLAN or Internet
- Easy selection of RS232, RS422 or RS485 by single DIP switch or individually by software
- Port expansion over USB A connector
- LAN 1000/100/10 Ethernet auto-detect
- NetCom Manager automatically finds NetCom+ devices in the network
- Configuration over Driver Panels, serial Port, Telnet, WEB Browser, SNMP
- Automatic mode switching between Driver and Raw Mode
- Supports TCP/IP, UDP, Telnet, DHCP, ICMP, HTTP, SNMP V1/2c/3, DNS, PPP, openVPN
- SSL/AES-256 encryption on Ethernet, WLAN and Internet
- Optional: Wireless network IEEE 802.11b/g/n
- Optional: 3G/4G Modem for mobile networks

Contact Online...

ModGate Plus 813

(ModGate 813RM)

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More Pictures





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Overview

The Modgate Plus (or Modgate+) are easy to use Gateways from Modbus/TCP on Ethernet or WLAN to Modbus/RTU or Modbus/ASCII on the serial ports. Modgate+ 813 connects eight Modbus serial lines to a network running TCP/IP. Metal case, wide temperature range and flexible DC power supply classify the Modgate+ as industrial-strength devices. They are based on a state-of-the-art RISC processor, to provide cost-effective design and low power consumption.

Using TCP/IP the Modgate+ operate without limitations on distance or OS platform, the Gateways are usable via Internet and VPN connections. The serial port is configured for Modbus/ASCII or Modbus/RTU and physically set to RS232, RS422 or RS485 operation. The messages received on the network are sent to the serial line, messages from the serial port are sent via network. Modgate+ automatically adjusts as Master or Slave on the serial port.
Modbus Master Multiplexing is implemented as an extension to the standard. Several masters connect to Modgate+ by Modbus/TCP, slaves on serial lines may answer requests from multiple masters.

The configuration of Modgate+ is done via browser. The user interface is based on Web 2.0 to provide an easy handling of the options. UPnP provides a simple and standard way to find the Gateway in the network.

Modgate+ devices can be ordered with an embedded module for WLAN 802.11b/g/n. Plus the

Modgate+ 813 may be ordered as POE device, with additional power supply via Power-over-Ethernet 802.3af (Class 0).

Application

- Secure Remote Monitoring
- SCADA system
- Building automation system
- Self-service banking system
- Industrial / Factory / Laboratory automation
- Automatic warehouse control system
- Wafer fabrication system
- Other remote and distributed serial devices control

Interface

Ethernet interface	Auto-detecting 1000BaseT/100BaseTx/10BaseT (GigaLAN) Connector 8P8C (RJ45)
Wireless interface	Optional via internal module or external USB stick IEEE 802.11b/g/n operation in Access Point or Client Mode
Protocols	TCP/IP, DHCP, ICMP, HTTP, DNS, UDP, UPnP/SSDP, Modbus/TCP, Modbus/RTU, Modbus/ASCII
Serial interface	RS232/422/485 selected by software
No. of port	8x DSUB 9 male connector (as PC)
Available Modes	• RS232 full duplex • RS422 full duplex • RS485 4 wire, full duplex • RS485 2 wire, half duplex
Signals	• RS232: TxD,RxD, RTS,CTS, DTR,DSR, DCD, GND • RS422: Tx+/-, Rx+/-, GND • RS485 2 wire: Data+/-, GND • RS485 4 wire: Tx+/-, Rx+/-, GND
RS485 Data control	Controlled by ART (Automatic Receive Transmit control)
Expansion port	USB 2.0 High Speed, for WLAN

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Serial Performance

Speed	up to 115.2 kbps for Modbus RS232: up to 1000 kbps, RS422/485: up to 3 Mbps
Parity	None, even, odd
Data bits	7, 8
Stop bits	1, 2

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Operating Modes

Modbus RTU/ASCII	Modbus RTU or Modbus ASCII protocol selected for each serial port individually
DirectMappingMode	Direct mapping of Modbus addresses to serial ports or TCP connections
PromiscousMode	Mapping of serial ports to TCP connections

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Power and Environment

Connector	3-pin Terminal Block with Protective Earth
Power requirements	9 - 54V DC, 0.5A @ 12V, 6W
Power over Ethernet	Optional, Class 0 Device (802.3af). Typical consumption is 6W.
Dimension	196×147×44 mm^3 (W×L×H)
Operating Temp	−20°C - 65°C
Storage Temp	−20°C – 85°C
Case	SECC sheet metal (1mm)
Weight	0.9kg
Mounting	• 19-inch Rack • Wall mount

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Standards

Declarations	CE, FCC
EMI	• EN 55022 Class B • EN 61000-3-2: Limits of harmonic current emissions • EN 61000-3-3: Limitation of voltage changes • 47 CFR FCC Part 15 Subpart B
EMS (EN 55024)	• EN 61000-4-3: Radiated RFI • EN 61000-4-4: Electrical Fast Transient • EN 61000-4-5: Surge • EN 61000-4-6: Induced RFI • EN 61000-4-8: Power Frequency Magnetic Field • EN 61000-4-11: Power supply dips
ESD	EN 61000-4-2 4kV contact 8kV air for • Serial Ports • USB • Ethernet • DC Power connector

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Special Features

Installation	DIP switches set a defined temporary IP Address to contact via WEB Browser
Operating mode	Promiscous Mode Messages received from the network are sent to defined serial ports, messages from the serial port are sent to defined connected network host. Mapped Mode Received messages are scanned for their target address. This address is found in a table, the message is sent to the defined connection (serial or TCP).
Modbus Master Multiplexing	An extension to the standard. Slaves on serial lines may answer requests from multiple masters. The masters connect to ModGate+ by Modbus/TCP.
Configuration	Configuration over WEB Browser
Detection	Announces presence in the network via Universal Plug and Play (UPNP) protocol
DNS	Domain Name Server support
Serial Interface	Serial Interface configurable by software This also enables internal Termination for RS485
Firmware	Firmware update over WEB Browser
LEDs	LEDs for Power, Ready, WLAN, serial Tx, Rx, Ethernet Link, Speed

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Security

Password access	Webinterface is password protected. The password can be changed in the Webinterface.

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Ordering Information

6740	ModGate Plus 813 (8x RS232/422/485)

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Options

6689	WLAN Kit internal internal module 802.11b/g/n, pigtail and antenna Purchase time option, not for later retrofitting

6690	WLAN Kit external USB stick 802.11b/g/n, antenna
6031	Power supply adapter 12V DC, 1A
663	5-pin Terminal block adapter to DB9 female
6061	RJ45 adapter to DB9 female
661	Serial Null-Modem adapter 9PF-9PF, change male to female
on Request	Option POE, 802.3af (Class 0) Power-over-Ethernet alternative supply

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Packaging

Packing list	• ModGate Plus 813 • Mounting brackets for 19-inch rack • Wall mount plates • Terminal block for Power Supply • CD-ROM with user manual

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Model ModGate Plus 813 with WLAN

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Wall Mounting Kit

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