

# ModGate 113

## 1-Port Industrial Modbus Gateway

<b>Hardware</b>	
Processor	ARM 9 166 MHz
I/O Controller	16C950 or compatible
Memory	16MB SDRAM, 2 MB Flash
Connector Type	DSUB 9 male for serial Port, RJ45 for Ethernet
<b>Interface</b>	
Ethernet Interface	Auto-detecting 10BaseT/100BaseTx
Protocols	TCP/IP, DHCP, ICMP, HTTP, DNS
Serial Interface	RS232/422/485 selected by software
No. of Port	1, Speed up to 115200 bps
Available Modes	RS232 full duplex RS422 full duplex RS485 4 wire, full duplex RS485 2 wire, half duplex, with echo RS485 2 wire, half duplex, without echo
Signals	RS232: Tx, D, Rx, CTS, DTR, DSR, DCD, RI, 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)
<b>Performance</b>	
Speed	Up to 115200 bps
Parity	None, even, odd
Data Bits	7, 8
Stop Bits	1, 2
IRQ	None
I/O Address	None
<b>Operating Modes</b>	
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
PromiscuousMode	Mapping of serial ports to TCP connections
<b>Special Features</b>	
Installation	Dip switches set a defined temporary IP Address to contact via WEB Browser
Operating Mode	<b>Promiscuous Mode :</b> Messages received from the network are sent to the serial port, messages from the serial port are sent to the connected network host. <b>Mapped Mode :</b> 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 113 by Modbus/TCP.
Configuration	Configuration over WEB Browser
Art	Automatic Receive Transmit control for RS485
DNS	Domain Name Server support
Serial Interface	Serial Interface configurable by software
Firmware	Firmware update over WEB Browser
LEDs	LEDs for Power, serial Tx, Rx, Ethernet Link, Speed
<b>Security</b>	
Password Access	Webinterface is password protected. The password can be changed in the Webinterface.
<b>Power and Environment</b>	
Power Requirements	9 - 30V DC, 250mA @ 12V
Power supply Adapter	12V DC, 1A. Connected by Terminal block
Operating Temp.	0°C - 55°C
Storage Temp.	-20°C - 85°C
Case	SECC sheet metal 1mm
Dimension	73 × 115 × 27 mm <sup>3</sup> (W × L × H); 101 × 121 × 27 mm <sup>3</sup> with DB9 connector and DIN-Rail mounting kit

## 1-Port Industrial Modbus Gateway

Weight	200 g
<b>Approvals</b>	
EMC Environment	FCC Class A, CE Class A RoHS
<b>Ordering Information</b>	
Art. No.	6700
Product Name	ModGate 113
Packing List	<ul style="list-style-type: none"> <li>◆ ModGate 113</li> <li>◆ Power supply adapter 12V, 1000mA</li> <li>◆ CD-ROM with user manual</li> </ul>
Optional Accessories	<ul style="list-style-type: none"> <li>◆ DK 35A (Art No. 662) - DIN-Rail mounting kit</li> </ul>

## Overview

Modgate 113 is an industrial-strength Modbus-Network gateway for connecting one Modbus line to a network running TCP/IP. It operates without platform and distance limitation.

ModGate 113 uses Modbus/TCP for communication on the network. The serial port is configured for Modbus/ASCII or Modbus/RTU, while the serial line is physically set for RS232, RS422 or RS485. The messages received on the network are sent to the serial line, messages from the serial port are sent via network.

Modbus Master Multiplexing is implemented as an extension to the standard. Slaves on serial lines may answer requests from multiple masters. Then the masters connect to ModGate 113 by Modbus/TCP.

The configuration of ModGate 113 is done via HTTP. The user interface is based on Web 2.0 to provide an easy handling of the options. Besides typical serial parameters the configuration includes RS232/485 for serial physical parameters. Further a Modbus address mapping table is available, defining a target port for a certain Modbus address.

ModGate devices are available with up to 8 serial ports, optional also with WLAN plus Ethernet.

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