

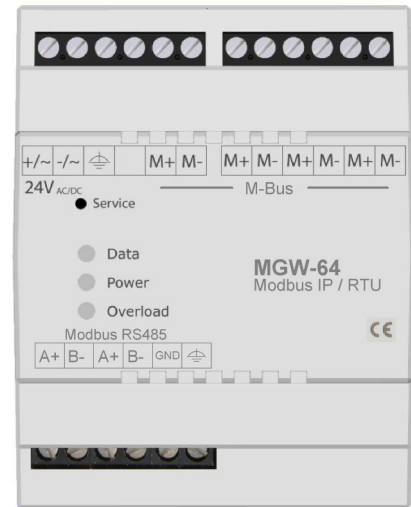
■ Article description

The Modbus gateway collects data from M-Bus terminals and converts the M-Bus data into a Modbus format.

The Ethernet IP interface can easily be used as a Modbus TCP interface. The device also has an RS485 interface for the use of the RTU/ASCII protocol. Various Modbus master tools can be used to query the data.

The integrated web server offers the option of easily configuring the device and directly viewing the data from M-Bus end devices. Thus, the device also offers access to the M-Bus data with a web browser, independent of the operating system.

The device can be used for applications ranging from mechanical engineering and industrial automation to home and building automation with standardised communication.



Picture: MGW64 Modbus IP/RTU/ Gateway

■ Technical Data

Rated voltage	24 V _{AC / DC}
Supply voltage rate	24 V _{DC} ±20%, 24 V _{AC} ±5%
Power consumption at nominal supply voltage without load currents	≈ 85 mA
Processor	Cortex M4
Button: Service	Set factory settings, press and hold for 30 s until the power LED flashes.
Display	Data: Tx/Rx two-coloured (yellow, green) Power: supply voltage (green) Overload: M-Bus over-current (red)
M-Bus voltage	≈ 38 V
M-Bus over-current threshold	> 111 mA
M-Bus load	M-Bus voltage 96 mA (64 standard loads @ 1,5 mA)
Interfaces	Ethernet IP, Modbus IP, Modbus RTU/ASCII, M-Bus
Data rate M-Bus	300 ... 38400 Baud
Protection of interfaces	Galvanic isolation between supply voltage, Ethernet IP / Modbus IP, Modbus RTU/ASCII and M-Bus Additional TVS diodes.

■ Terminals

Connection type	Screw terminal with tension sleeve
Solid conductor cross-section	0,2 mm ² ... 4 mm ²
Stranded conductor cross-section	0,2 mm ² ... 2,5 mm ²
Stranded conductor cross-section with sleeve	0,25 mm ² ... 2,5 mm ²
Stripping length	8 mm

■ Environmental conditions

Ambient temperature (operating)	-10 °C to +50 °C
Relative humidity (without condensation)	90 %

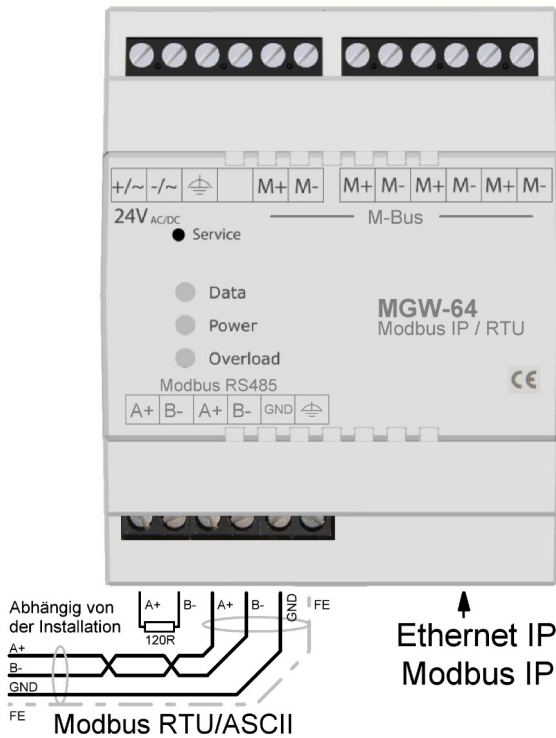
■ Housing data

Type of housing	Installation housing according to DIN 43880
Housing material	Plastic, polycarbonate PC V-0
Colour	Light grey (RAL 7035)
Flammability category	V0 according to UL 94
Ingress protection	IP 20
Mounting	Mounting rail TS35, (4TE) or with screw lugs according to DIN EN 50022.
Mounting position	Parallel to mounting rail





■ Standards and regulations

Conformity marking	CE
EMC noise immunity	acc. to DIN EN 55024
EMC radiated emissions	acc. to DIN EN 55032
Elektromagnetic compatibility	acc. to DIN EN IEC 61000-6-2
M-Bus communication	acc. to DIN EN 13757-2
Fieldbus communication	acc. to IEC 61158, IEC 61785 CPF15/1

Terminal assignment



Pin assignment	
Function	Pin
Supply voltage	24V +/-
Supply voltage	24V -/~
Functional grounding	
none	Not in use
M-Bus	M+
M-Bus	M-
M-Bus	M-
M-Bus	M-
M-Bus	M+
M-Bus	M-
M-Bus	M+
M-Bus	M-
Modbus RTU / ASCII	A+ (terminal resistor))
Modbus RTU / ASCII	B- (terminal resistor))
Modbus RTU / ASCII	A+
Modbus RTU / ASCII	B-
Modbus RTU / ASCII	GND
Funktionserde	
Ethernet IP / Modbus IP interface	Ethernet – IP

	Power		Output		Input		IP
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■ Physical Data

Width	72 mm
Height	90 mm
Depth (device)	64 mm
Weight	≈ 170 g

