

Gateway for radio-based connection to bus networks

RS485 interface, galvanically isolated, Modbus (RTU) / BACnet (MS/TP)
and W-Modbus / W-BACnet (Wireless)

W-Modbus
W-BACnet

The **KYMASGARD® GW-WM** gateway with W-Modbus/W-BACnet (wireless) in an impact-resistant plastic housing with quick-locking screws for on-wall installation serves as an interface between wired Modbus/BACnet and wireless W-Modbus/W-BACnet. Up to 100 nodes can communicate with each other over a long distance (up to 500m in a free field). A galvanically isolated RS485 transceiver is used on the wired side (bus parameters can be set via DIP switches).

The simple **setup of the wireless network** and the connection stability enable wired systems to be easily expanded with wireless W-Modbus/W-BACnet sensors. Even mixed configurations of wired and wireless units can easily be integrated into existing network topologies via this gateway. For this purpose, there are **two operating modes** available depending on the unit type:

The **Gateway** mode (master function) serves as a base station for up to 100 wireless nodes.

The unit is connected to the wired side of an existing bus topology or directly to a DDC/PLC (Modbus/BACnet).

The **Node** mode (adapter function) serves as a wireless adapter for one wired node.

The connection is made to the wired sensor and is used to link it to a wireless bus network (W-Modbus/W-BACnet).

The **NodePro** mode (type 'GW-WM Pro') extends node mode to support up to 16 wired nodes.

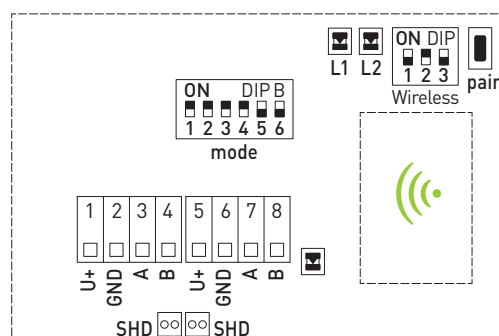
The **innovative parametrisation** of the RS485 interface and the elimination of wiring means that the entire wireless network can be pre-configured (pairing the nodes, parametrising the gateway). This means that the network can be installed and put into operation quickly and easily at the destination. In **App mode**, the network setup can be checked and documented (PDF) using the **Lumenradio W-Modbus app** or **W-BACnet app** (Apple/Android). More app functions also include installing firmware updates for the wireless module, changing unit names and recognising communication errors or duplicate addresses.

TECHNICAL DATA

Power supply:	24 V AC ($\pm 20\%$); 15...36 V DC
Power consumption:	< 1.0 W / 24 V DC; < 1.4 VA / 24 V AC
Communication:	RS485 interface, galvanically isolated, protocol type Modbus (RTU) or BACnet (MS/TP) (can be set via DIP switches)
Funkmodul:	W-Modbus / W-BACnet (AES-128 encrypted), up to 100 units per gateway, frequency 2.4 GHz ISM, transmission power 100 mW
Range:	max. 500 m (open field) / approx. 50 - 70 m (inside buildings) between two wireless nodes
Wireless nodes:	max. 100 wireless nodes
Operating modes:	Master function and adapter function (can be set via DIP switches) Gateway Master function (for both types) as a base station in a wired bus network Node Adapter function (for type 'GW-WM') for 1 wired sensor NodePro Adapter function (for type 'GW-WM Pro') for up to 16 wired sensors
Housing:	Plastic, UV-resistant, polyamide material, 30 % glass-globe reinforced, with quick-locking screws (slotted / Phillips head combination), colour traffic white (similar to RAL 9016)
Housing dimensions:	108 x 78.5 x 43.3 mm (Tyr 3)
Cable connection:	Cable gland , plastic (2x M 20 x 1.5; with strain relief, exchangeable, inner diameter 8 - 13 mm) or M12 connector according to DIN EN 61076-2-101 (optional on request)
Electrical connection:	0.2 - 1.5 mm ² , using push-in terminals
Ambient temperature:	-30...+70 °C
Permitted humidity:	< 95 % RH, non-precipitating air
Protection class:	III (according to EN 60 730)
Protection type:	IP 65 (according to EN 60 529)
Standards:	CE-conformity according to EMC directive 2014 / 30 / EU, Radio Directive 2014 / 53 / EU

For further information, see the operating instructions

Connection diagram



- DIP B (mode):**
Bus parameters
(Baud rate, parity...)
- DIP Wireless:**
Operating Mode
(Gateway, Node)
- Teach-in key (pair)**
- Network Status (L1)**
Connection quality (L2)
- Telegram Status**
- Shielding (SHD)**

GW-WM

**NEW**

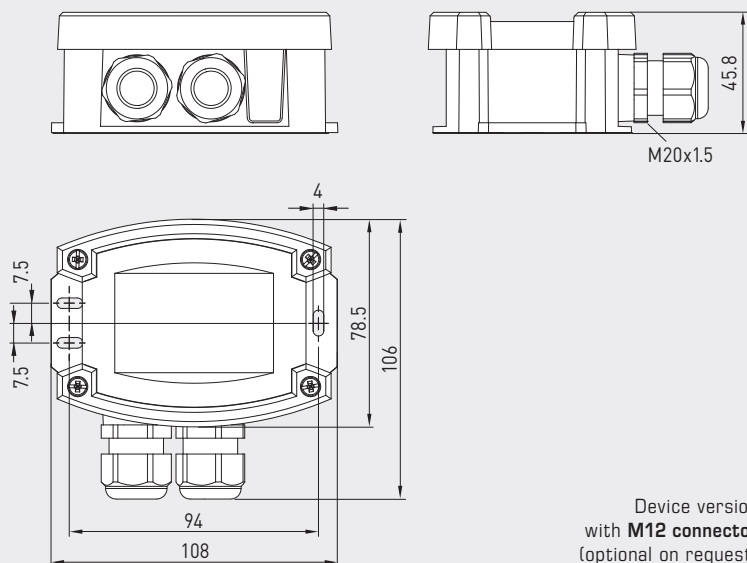
S+S REGELTECHNIK

KYMASGARD® GW-WM

Gateway for radio-based connection to bus networks

RS485 interface, galvanically isolated, Modbus (RTU) / BACnet (MS/TP)
and W-Modbus / W-BACnet (Wireless)Dimensional drawing
[mm]

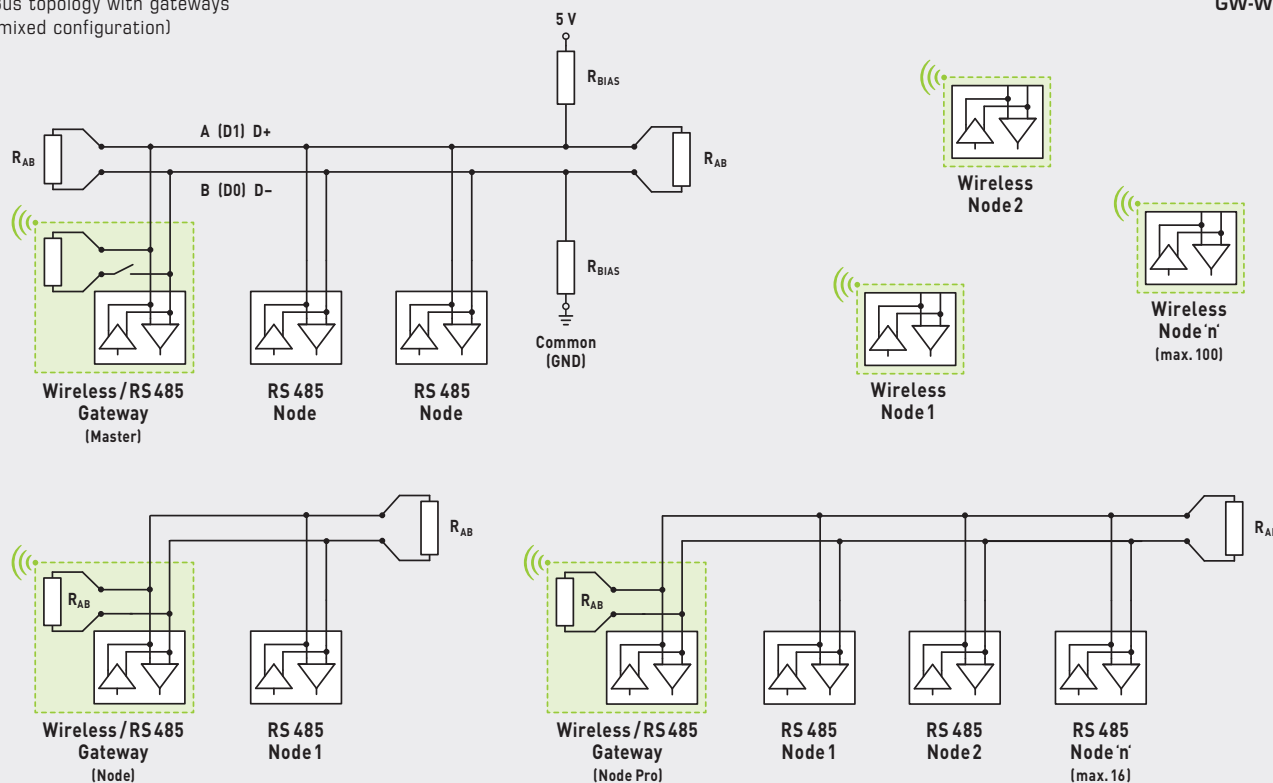
GW-WM

Device version
with **M12 connector**
(optional on request)

GW-WM

Bus topology with gateways
(mixed configuration)

GW-WM

**KYMASGARD®** Gateway with W-Modbus / W-BACnet (Wireless)
GW-xx for radio-based connection of wired sensors

Type / WG02	Communication (protocol switchable)	Operating modes (switchable)	Item no.	Price
GW-xx	Wireless	RS485		
GW-WM	W-Modbus / W-BACnet	Modbus (RTU) / BACnet (MS/TP)	Gateway + Node	1801-1211-1101-000 245,30 €
GW-WM Pro	W-Modbus / W-BACnet	Modbus (RTU) / BACnet (MS/TP)	Gateway + Node Pro	1801-1211-1101-100 332,07 €
Note: 'Pro' extends node operation from 1 to a maximum of 16 wired nodes				
Extra charge:	Cable connection with M12 connector according to DIN EN 61076-2-101			on request