

DIGWM

DIN rail mounted Sentera Wi-Fi Internet Gateway

DIGWM is an internet gateway to connect a stand-alone Sentera device or a network of devices to the Internet in order to configure or monitor them via SenteraWeb. The DIGWM makes wireless connection with an existing WiFi network. The unit has 2 Modbus RTU channels - a Master channel to communicate with the connected Slave devices, and a Slave channel to make the unit accessible for a Master controller or a BMS.

Key features

- Power over Modbus. 24 VDC supply voltage and Modbus RTU communication can be connected via the RJ45 socket
- Firmware update via SenteraWeb
- Data transmission to and from the Internet via Wi-Fi (WLAN 802.11 b/g/n)
- Backup battery for real time clock, in case the power supply is interrupted
- LED indications: Connected, Error, bootloader mode
- Implemented MQTT protocol
- Supports TCP Client/UDP Client/HTTP Client mode
- Enclosure: DIN rail mounted, plastic ABS, UL94-V0, grey RAL 7035

Area of use

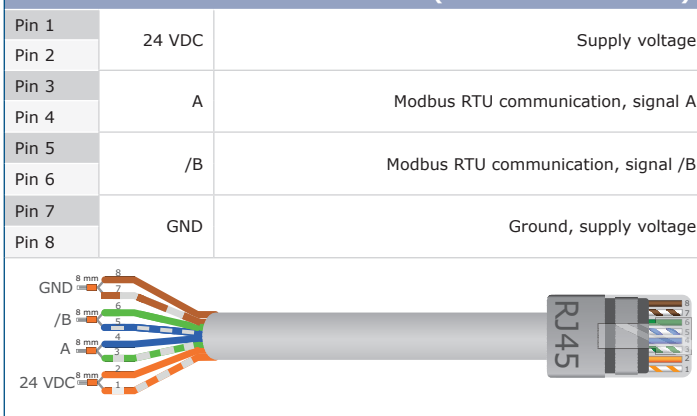
- Connecting Sentera devices to the SenteraWeb service database
- Gateway for application dedicated firmware and/or firmware updates via the SenteraWeb Service Database
- Update setpoints, ranges and other parameters from the connected Sentera slave devices
- Data monitoring and data logging via the SenteraWeb Service Database
- Gateway for warnings and notifications (e.g. clogged filter notification, motor failure alarm, etc.)

Technical specifications

Supply voltage	24 VDC, Power over Modbus	
Imax	35 mA	
Output voltage for connecting slave devices	24 VDC	
Ambient conditions	Temperature	-10—60 °C
	Relative humidity	5—95 % rH, (non-condensing)
Protection standard	IP20	

Wiring diagram

RJ45 socket (Power over Modbus)



Standards

- EMC directive 2014/30/EU
 - EN 61326-1:2013 Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements
 - EN 55011:2016 Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement Amendment A1:2017 and A11:2020 to EN 55011:2016
 - EN 55024:2010 Information technology equipment - Immunity characteristics - Limits and methods of measurement
 - EN 50561-1:2013 Power line communication apparatus used in low-voltage installations - Radio disturbance characteristics - Limits and methods of measurement - Part 1: Apparatus for in-home use Amendment AC:2015 to EN 50561-1:2013
- LVD directive 2014/35/EU:
 - EN 60950-1:2006 Information technology equipment - Safety - Part 1: General requirements. Amendments AC:2011, A11:2009, A12:2011, A1:2010 and A2:2013 to EN 60950-1:2006
 - EN 62311:2008 Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz - 300 GHz)
- Radio equipment directive 2014/53/EU:
 - EN 300 328 V2.1.1 Wideband transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using wide band modulation techniques; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU
- ETSI EN 301 489-1 V2.1.1 (2017-02) Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements; Harmonised Standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU and the essential requirements of article 6 of Directive 2014/30/EU
- ETSI EN 301 489-17 V3.1.1 (2017-02) Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for Broadband Data Transmission Systems; Harmonised Standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU
- RoHS Directive 2011/65/EU
 - EN IEC 63000:2018 Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances

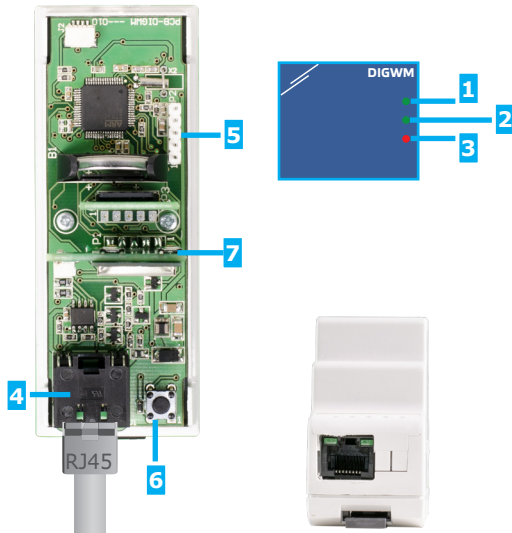


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Settings and indications

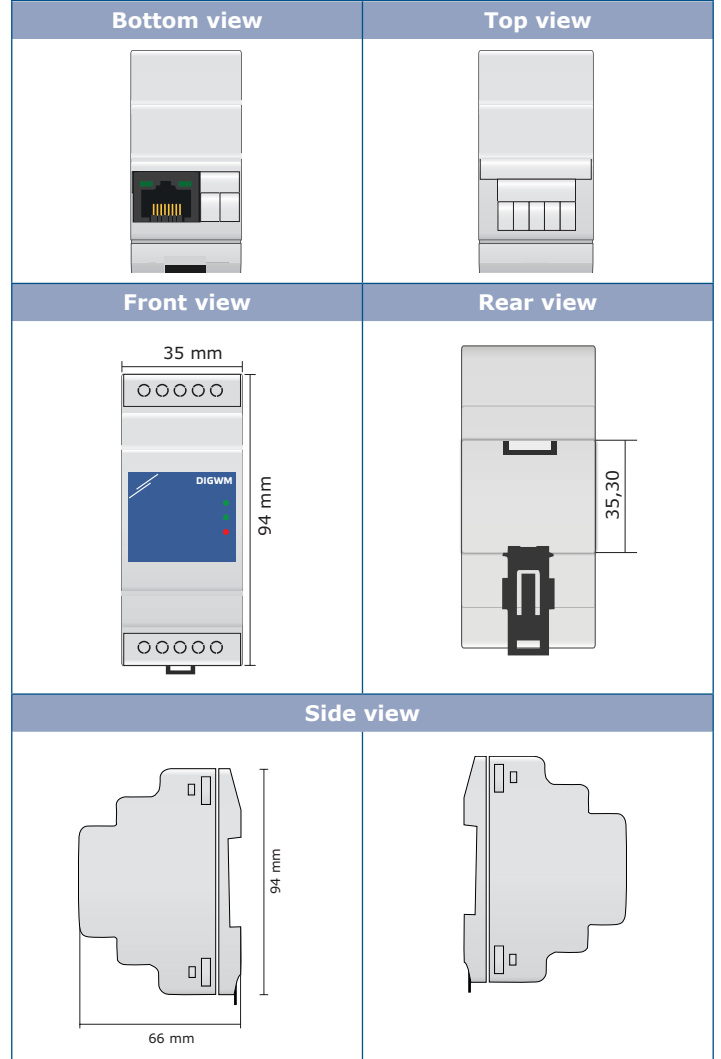


1 - Green LED	On	The unit is supplied and connected to SenteraWeb via the internet
2 - Green LED	Blinking slow	The unit is in bootloader mode
	Blinking	The unit is sending/receiving data from SenteraWeb
3 - Red LED	Blinking	The unit is supplied but there is no connection with SenteraWeb
4 - RJ45 socket		To connect master/slave devices or BMS and/or PoM power supply
		Blinking LEDs indicate that packages are transmitted via Modbus RTU communication
5 - PROG header, P1		Put a jumper onto pins 1 and 2 and wait for at least 5 seconds to reset the Modbus communication parameters
		Put a jumper onto pins 3 and 4 and restart the supply to enter bootloader mode
6 - Modbus register reset tact switch		Push to start the Modbus RTU register factory reset Press and hold for 4 seconds to remove the actual Wi-Fi network connection. After the Wi-Fi network reset, the default IP-address is restored: 192.168.1.123
7 - Wi-Fi reset tact switch		Press and hold for 4 seconds to remove the actual Wi-Fi network connection. After the Wi-Fi network reset, the default IP-address is restored: 192.168.1.123.

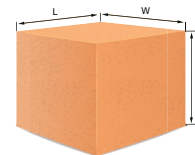
Global trade item numbers (GTIN)

Packaging	DIGWM
Unit	05401003017760
Box	05401003503522

Fixing and dimensions



Packaging



Article	Packaging	Length [mm]	Width [mm]	Height [mm]	Net weight	Gross weight
DIGWM	Unit (1 pc.)	96	94	40	0,128 kg	0,158 kg
	Box (60 pcs.)	590	380	280	7,9 kg	12,2 kg



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Application example

