



## DB2-WM2

### Solar Radiation and Panel Temperature Sensor



#### ■ Key Features

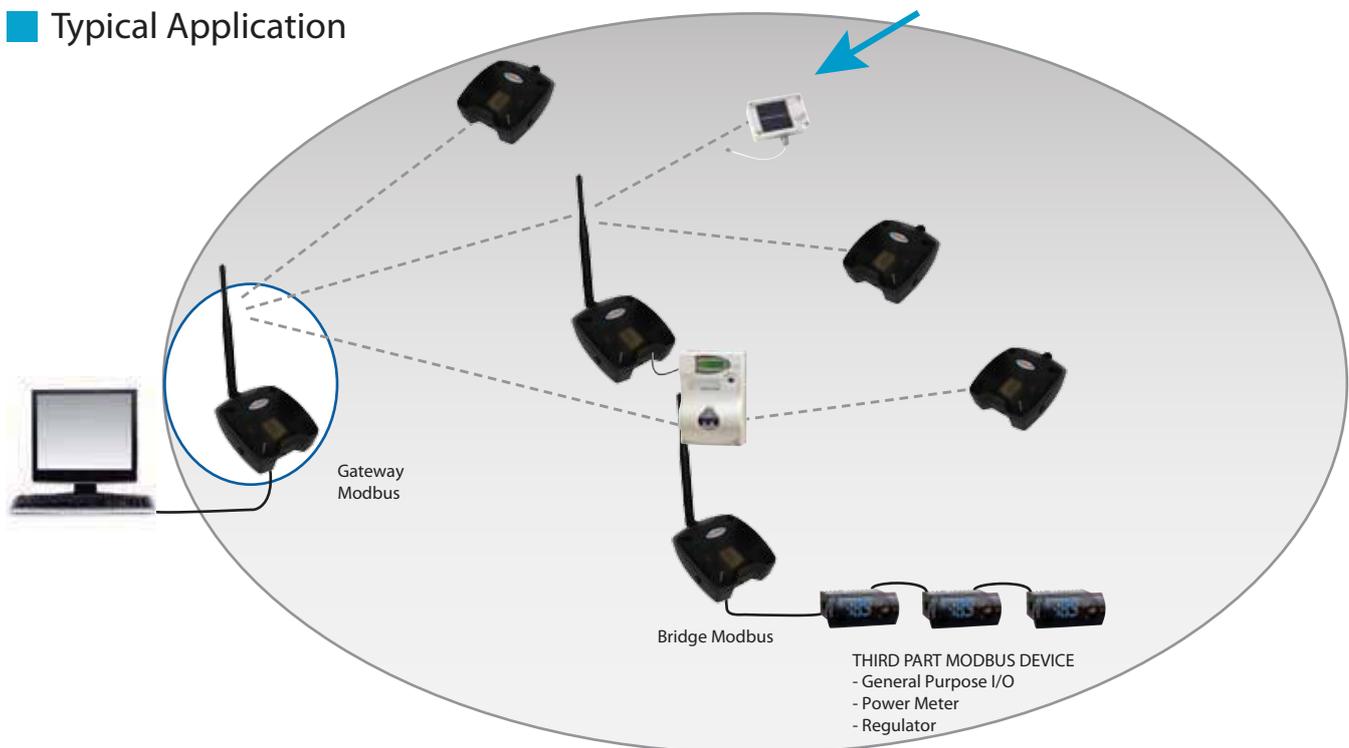
- Radiation in W/m<sup>2</sup>
- Energy theoretically producible after normalization according to the nominal power system and the performance of modules
- Temperature probe for modules
- Powered by solar cell and battery

The DB2-WM2 is a device of the DB2-Connection family. It detects and transmits to a Gateway of the DB2-Connection products family of Digatron the value of solar radiation measured by compensated temperature photodiode, the energy theoretically producible by a photovoltaic installation according to the solar radiation and the module temperature measured by contact probe.

The energy theoretically producible provides normalization with a settable parameter that takes into account the efficiency of the panels used and the rated power plant.

It is powered by solar cell 5V 100 mA assisted by lithium battery for the night periods and if lack of sunshine.

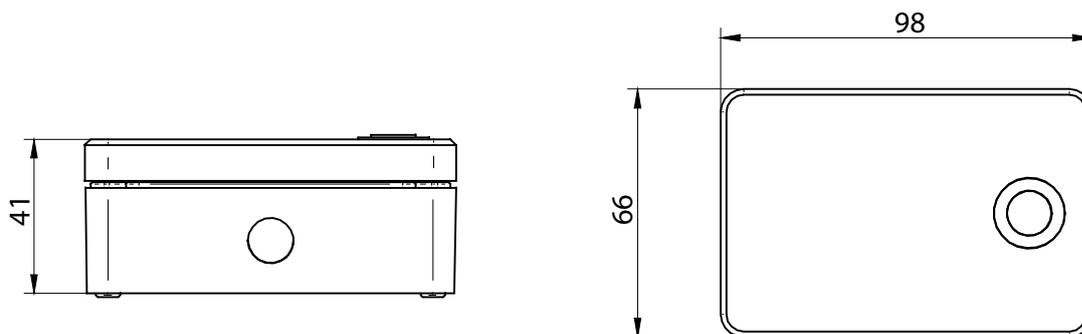
#### ■ Typical Application



## Technical Specs

General characteristics	Chip Ember EM250 Compatible IEEE 802.15.4 Stack EmberZnet 3.x (ZigBee PRO) Modbus/RTU
RF characteristics	Frequency: 2405 MHz ÷ 2480 MHz Modulation: DSSS Nominal transmission power: 2mW (3 dBm) Receiver sensitivity: -95 dBm Internal antenna gain: 3 dB Range outdoor/indoor with repeater included: 100m/30m
Supply	Photovoltaic cell 5 V 100mA with lithium tampone battery 2,4 Ah Battery life: 5 years
Radiation sensor	Solar radiation range measured by compensated temperature photodiode 0-1500 W/mq
Temperature sensor	NTC contact to apply to one of the photovoltaic modules Temperature range: -20 +90°C
Transmitted measurements	Radiation, energy theoretically producible integrated over 90 seconds and normalized by the value of nominal power plant. Temperature modules detected every 90 seconds
Environment parameters	Operating temperature: -20 ÷ +75°C; <80% U.R. not condensing Storage temperature: -20 ÷ +80°C; <80% U.R. not condensing
Compliant with 2006/95/EEC, 89/336/EEC, 99/5/EEC directives Reference Norms:	ETSI EN 300 328: Radio Compatibility for digitals wide band transmissions ETSI EN 301 489: Radio Compatibility EN 61000-3-2: Electromagnetic Compatibility - Emissions EN 61000-3: Electromagnetic Compatibility - Immunity EN 60950-1: Electric Safety

## ■ Dimensions (mm)



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**Digitron**

