

EM111-MBUS-MID

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmueller.com



Discover our high-quality energy meters with MID approval.

- Measuring instruments according to the European Measurement Instrumentation Directive MID 2014/32/EU fulfil the legal requirements for use in the billing of energy consumption. This offers legal security for both the operator of the measuring instruments and the end consumer.
- Our portfolio supports various protocols such as Modbus RTU and Ethernet as well as M-Bus for use in building automation for recording energy, water and gas consumption.

General ordering data

Version	Power measurement/display for 1-phase mains, 45 A, direct measurement
Order No.	3140990000
Type	EM111-MBUS-MID
GTIN (EAN)	4099987460705
Qty.	1 items

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Technical data

Approvals

ROHS	Conform
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Dimensions and weights

Depth	64 mm	Depth (inches)	2.5197 inch
Height	118 mm	Height (inches)	4.6457 inch
Width	18 mm	Width (inches)	0.7087 inch
Net weight	64.2 g		

Temperatures

Storage temperature	-40 °C...70 °C	Operating temperature	-25 °C...55 °C
Humidity at operating temperature	0...90 % (no condensation)	Humidity	0...95 % (no condensation)

Measuring current input

Housing main material	Plastic	AC input cable connection	Directly at the device
Current-measuring channels	1	Measuring accuracy for current	0.5 %
Residual current measuring	No	Max. current	45 A

Measuring voltage input

Low voltage network	1 phase 2 wire (L + N)	Voltage type	AC
Frequency range, max.	60 Hz	Frequency range, min.	50 Hz
Measuring accuracy for voltage	0.5 %	Three-wire system	No
Measurement range, voltage L-N, AC	176...276 V	Four-wire system	No

Communication

Baud rate	≤ 9600 Bd	Communication	Bi-directional
Stop bits	1, 2	Protocol	M-Bus

Inputs/outputs

Input type	1 phase AC (L1, N)	Digital output configurable	Yes
Number of digital inputs	0	Number of digital outputs	2
Number of pulse outputs	2		

Measurement data recording

Update interval register	100 ms	Software	EM configuration tools
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Technical data

Display value	Apparent power, Voltage, current measured value	Version	Power measurement/display for 1-phase mains, 45 A, direct measurement
Input frequency	50/ 60 Hz	Display	LCD
Type of mounting	DIN rail	Protection degree	IP20, Front panel: IP5 1
Pollution severity	2	Power factor input	1 %
Measurement accuracy	0.5% in relation to final value (U / I), Class 0.5	Max. current	45 A
Display monitoring (monitor)	LCD	Standards	EN 55022, IEC 61000-4-3
Measurement range, voltage L-N, AC	176...276 V	Surge voltage category	II
Supply voltage	120 V, 230 V	Three-wire system	No

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Four-wire system	No	Sampling frequency 50/60 Hz	3.2 kHz
Continuous measurements	Yes	Measurement result per second	100 ms
Residual current measuring	No	Current-measuring channels	1
Measuring accuracy for voltage	0.5 %	Measuring accuracy for current	0.5 %
Measurement accuracy for active energy Class 0.5 (kWh, .../5 A)			

Insulation coordination

Impulse withstand voltage	6 kV (1.2/50 µs)	Surge voltage category	II
Pollution severity	2	Tolerance class	0,5
Insulation voltage input or output/supply 4 kVeff / 1 min.			

Classifications

ETIM 8.0	EC002301	ETIM 9.0	EC002301
ETIM 10.0	EC002301	ECLASS 14.0	27-14-23-30
ECLASS 15.0	27-14-23-30		