

EM120-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-, 3-phase mains, use of CT, pulse output, MID approval
Order No.	3141010000
Type	EM120-MBUS-MID
GTIN (EAN)	4099987460729
Qty.	1 items

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Technical data

Approvals

ROHS	Conform
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Dimensions and weights

Depth	65 mm	Depth (inches)	2.5591 inch
Height	94.5 mm	Height (inches)	3.7205 inch
Width	72 mm	Width (inches)	2.8346 inch
Net weight	246.8 g		

Temperatures

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

Measuring current input

Housing main material	Plastic	AC input cable connection	Directly at the device
Current-measuring channels	3	Measuring accuracy for current	0.5 %
Residual current measuring	No	Max. current	5000 A

Measuring voltage input

Low voltage network	1 phase 2 wire (L + N), 3 phase 3 wire (L1 + L2 + L3), 3 phase 4 wire (L1 + L2 + L3 + N)	Measuring accuracy for voltage	0.5 %
Three-wire system	Yes	Measurement range, voltage L-L, AC	400 V
Measurement range, voltage L-N, AC	3 x 230 V	Four-wire system	Yes

Communication

Communication	Bi-directional	Stop bits	1, 2
Protocol	M-Bus		

Inputs/outputs

Input type	Secondary side of a current transformer 0-1 A or 0-5 A, 3 phase AC (3P, 3P +N)	Digital output configurable	Yes
Number of digital outputs	2	Number of pulse outputs	2
Temperature input	No		

Measurement data recording

Software	EM configuration tools
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Technical data

Display value	current measured value, Apparent power, Voltage, Reactive power, Power factor, Frequency, Import / export active power demand, Total import / export active energy, Total import / export reactive	Version	Power measurement/ display for 1-, 3-phase mains, use of CT, pulse output,, MID approval
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	energy, Total system power demand		
Input frequency	50/ 60 Hz	Display	LCD
Type of mounting	DIN rail	Power factor input	1 %
Measurement accuracy	Class 0.5	Max. current	5000 A
Display monitoring (monitor)	LCD	Measurement range, voltage L-N, AC	3 x 230 V
Measurement range, voltage L-L, AC	400 V	Supply voltage	230 V AC, 400 V AC
Supply voltage	230 V	Three-wire system	Yes
Four-wire system	Yes	Continuous measurements	Yes
Residual current measuring	No	Current-measuring channels	3
Measuring accuracy for voltage	0.5 %	Measuring accuracy for current	0.5 %
Measurement accuracy for active energy (kWh, .../5 A)	Class 0.5		

Insulation coordination

Impulse withstand voltage	6 kV (1.2/50 µs)	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		