

**ENERGY METER 520-230****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)

Energy meters - ValueLine

**Advanced functionality of energy data capture**

The scope of performance of the ValueLine energy meters goes beyond the core functions of energy measurement.

They are also suitable for determining, storing and visualising further energy quality parameters.

The free "ecoExplorer go" software is available for most types of the product group, on the one hand for device configuration / commissioning / visualisation of the measured values and on the other hand for analysing the power quality.

**General ordering data**

Version	Power measurement/display for 1-, 3-phase mains
Order No.	<a href="#">2500880000</a>
Type	ENERGY METER 520-230
GTIN (EAN)	4050118513936
Qty.	1 pc(s).

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**Technical data****Dimensions and weights**

Depth	48 mm	Depth (inches)	1.89 inch
Height	96 mm	Height (inches)	3.78 inch
Width	96 mm	Width (inches)	3.78 inch
Net weight	265 g		

**Temperatures**

Storage temperature	-40 °C...70 °C	Humidity at storage temperature	0...90 % (no condensation)
Operating temperature	-10 °C...55 °C	Humidity at operating temperature	0...90 % (no condensation)

**Measuring current input**

Current-measuring channels	3	Distortion factor THD-I in %	Yes
Harmonics, per order / current	1..40.	Measuring accuracy for current	0.2 %
Rated current	1 / 5 A	Residual current measuring	No

**Measuring voltage input**

Distortion factor THD-U in %	Yes	Four-wire system	Yes
Harmonics, per order / voltage	1..40.	Measurement range, voltage L-L, AC	480 V
Measurement range, voltage L-N, AC	277 V	Measuring accuracy for voltage	0.2 %
Quadrants	4	Three-wire system	Yes

**Communication**

Interface	RS485: 9,6 – 115,2 kbps	Protocol	Modbus RTU
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**Inputs/outputs**

Number of digital outputs	2	Number of pulse outputs	2
Temperature input	No		

**Measurement data recording**

Memory; minimum and maximum values	Yes	Update interval register	200 ms
Software	ecoExplorer go®	Integrated logic	Yes

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## Technical data

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Protection degree	IP20, IP40	Rated current	1 / 5 A
Version	Power measurement/display for 1-, 3-phase mains	Standards	EN 61326-1, IEC 61010-1, IEC 61010-2-030
Measurement range, voltage L-N, AC	277 V	Measurement range, voltage L-L, AC	480 V
Surge voltage category	300 V CAT III	Voltage supply	90 - 277 V AC (50/60 Hz), 90 - 250 V DC
Supply voltage	230 V	Three-wire system	Yes
Four-wire system	Yes	Quadrants	4
Sampling frequency 50/60 Hz	25.6 kHz	Continuous measurements	Yes
Measurement result per second	5 ms	Effective value from the period (50/60 Hz)	10 / 12
Residual current measuring	No	Current-measuring channels	3
Measuring accuracy for voltage	0.2 %	Measuring accuracy for current	0.2 %
Measurement accuracy for active energy (kWh, .../5 A)	Class 0.5S	Operating-hours counter	Yes
Bimetal function	Yes		

## Voltage quality measurement

Harmonics, per order / voltage	1.-40.	Harmonics, per order / current	1.-40.
Distortion factor THD-U in %	Yes	Distortion factor THD-I in %	Yes
Unbalanced	No	Positive, negative and zero system	Yes
Brief interruptions	No	Sequence-of-events recorder function	No

## Insulation coordination

Surge voltage category	300 V CAT III
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## Classifications

ETIM 6.0	EC002301	ETIM 7.0	EC002301
ETIM 8.0	EC002301	ETIM 9.0	EC002301
ECLASS 9.0	27-14-23-30	ECLASS 9.1	27-21-03-01
ECLASS 10.0	27-14-23-30	ECLASS 11.0	27-14-23-30
ECLASS 12.0	27-14-23-30	ECLASS 13.0	27-14-23-30

## Approvals

Approvals



Approvals	CE
ROHS	Conform
UL File Number Search	UL Website
Certificate no. (cULus)	E469563

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[www.weidmueller.com](http://www.weidmueller.com)**Technical data****Downloads**

Approval/Certificate/Document of Conformity

[Application notes – Declaration of Conformity](#)

Engineering Data

[CAD data – STEP](#)

Software

[MODBUS address list](#)[Win64 - ecoExplorer go](#)

User Documentation

[Quick Guide German/English](#)[Application notes – Manual ECOEXPLORER GO English](#)[Manual Energy Meter 520 German/English](#)

Catalogues

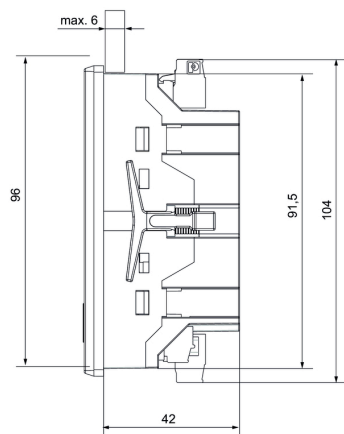
[Catalogues in PDF-format](#)

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