

ENERGY METER 700-PN-24**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

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.	2500870000
Type	ENERGY METER 700-PN-24
GTIN (EAN)	4050118513929
Qty.	1 pc(s).

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Technical data

Dimensions and weights

Depth	72 mm	Depth (inches)	2.835 inch
Height	96 mm	Height (inches)	3.78 inch
Width	96 mm	Width (inches)	3.78 inch
Net weight	265 g		

Temperatures

Storage temperature	-25 °C...70 °C	Humidity at storage temperature	0...90 % RH
Operating temperature	-10 °C...55 °C	Humidity at operating temperature	0 - 75% RH

Measuring current input

Current-measuring channels	4 + 2	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	Yes

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, Ethernet, Web server	Protocol	PROFINET, Modbus RTU, Modbus TCP/IP, Modbus RTU over Ethernet, SNMP
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Inputs/outputs

Number of digital inputs	3	Number of digital outputs	5
Analogue inputs (RCM, temperature, analogue)	2	Number of pulse outputs	5
Temperature input	Yes		

Measurement data recording

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

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Input frequency	<20 Hz	Protection degree	IP20, IP40
Rated current	1 / 5 A	Version	Power measurement/dis- play for 1-, 3-phase mains
Standards	IEC 61010-2-030, IEC 61010-1, IEC 61326-1	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	24 - 90 V AC (50/60 Hz), 24 - 90 V DC	Supply voltage	24 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	Yes
Current-measuring channels	4 + 2	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	Weekly time switch	No
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**Technical data****Downloads**

Approval/Certificate/Document of Conformity	Certificate of PROFlenergy Module Certificate of PROFINET IO Device Application notes – Declaration of Conformity
Engineering Data	CAD data – STEP
Software	Runtime Software – PN 700-PN GSDML file Device description – MODBUS address list Win64 - ecoExplorer go
User Documentation	Quick Guide German/English Application notes – Manual ECOEXPLORER GO English Application Note Manual Energy Meter 700 German/Englisch
Catalogues	Catalogues in PDF-format

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