

POWER MONITOR

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.	1423550000
Type	POWER MONITOR
GTIN (EAN)	4050118227871
Qty.	1 ST
Delivery status	This article will no longer be available in the future.
Available until	2026-12-30T00:00:00+01:00

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Technical data

Approvals

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ROHS Conform

Dimensions and weights

Depth	68 mm	Depth (inches)	2.6772 inch
Height	96 mm	Height (inches)	3.7795 inch
Width	96 mm	Width (inches)	3.7795 inch
Net weight	427 g		

Temperatures

Storage temperature	-25 °C...70 °C	Operating temperature	-25 °C...55 °C
Humidity	35 % to 85 % relative humidity level		

Environmental Product Compliance

RoHS Compliance Status	Compliant
REACH SVHC	Lead 7439-92-1

Measuring current input

Rated current	1 / 5 A	Current-measuring channels	3
Measuring accuracy for current	0.5 %	Residual current measuring	No

Measuring voltage input

Measuring accuracy for voltage	1 %	Three-wire system	Yes
Measurement range, voltage L-L, AC	0...500 V	Measurement range, voltage L-N, AC	0...250 V (1P3W), 0...289 V (3P4W)
Four-wire system	Yes		

Communication

Interface	RS485: Autobaud, 9,6 – 115.2 kbps (pluggable screw terminals)	Protocol	Modbus RTU
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Measurement data recording

Memory; minimum and maximum values	No	Software	Power Monitor Manager
Integrated logic	No		

Technical data

Display value	Apparent power, Effective power, Reactive power, Power factor, Voltage,	Version	Power measurement/display for 1-, 3-phase mains
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	Current, Frequency, Temperature		
Protection degree	Front panel: IP51, Enclosure: IP20	Pollution severity	2
Rated current	1 / 5 A	Standards	IEC 61010-1
Measurement range, voltage L-N, AC	0...250 V (1P3W), 0...289 V (3P4W)	Measurement range, voltage L-L, AC	0...500 V
Surge voltage category	II	Voltage supply	100...240 V AC, 100...300 V DC
Supply voltage	230 V	Three-wire system	Yes
Four-wire system	Yes	Sampling frequency 50/60 Hz	1024 kHz
Measurement result per second	100000 ms	Residual current measuring	No
Current-measuring channels	3	Measuring accuracy for voltage	1 %
Measuring accuracy for current	0.5 %	Measurement accuracy for active energy (kWh, .../5 A)	1% for the calculated values
Clock	Yes		

Voltage quality measurement

Positive, negative and zero system	Yes	Brief interruptions	Yes
Sequence-of-events recorder function	No		

Insulation coordination

Surge voltage category	II	Pollution severity	2
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Classifications

ETIM 6.0	EC002301	ETIM 7.0	EC002301
ETIM 8.0	EC002301	ETIM 9.0	EC002301
ETIM 10.0	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	ECLASS 14.0	27-14-23-30
ECLASS 15.0	27-14-23-30		

Tender specification sheets

Long specification	Electrical parameters have to be measured and visualised to optimise your machines' and systems' energy needs. This is the only way in which an analysis can be carried out and, subsequently, savings made and an energy management system established. An easy-to-install solution is now available from Weidmüller. When implementing an energy management system according to ISO 50001, the Power Monitor is one of the modules necessary to meet the requirements of recording, displaying and analysing power flows. Technical data:	Short specification	Measuring device for optimising energy requirements
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Germanywww.weidmueller.com**Technical data**

Input data: measurement variable: active, reactive, apparent power
Recording of frequencies of up to 99.99 Hz and temperatures of up to 100°C
Measurement variable: AC sine (50/60 Hz) designation
Input: voltage measurement inputs V1, V2, V3
Input voltage range: 0 VAC – 500 VAC (phase/phase)
Input voltage range: 0 VAC – 300 VAC (phase/neutral conductor)
Accuracy: 0.5% input current range: via external converters, input current: 8000 A (primary), input current: 5 A (secondary)
Response threshold of rated measurement range value: 1 mA
Power-measurement range: 0– 99999999.9 kW
Power-measurement range: 0– 99999999.9 kvar
Power-measurement range: 0– 99999999.9 kVA
Accuracy: 1%
Interface: RS-485
Type of connection: screw terminals
General data: width: 96 mm, height: 96 mm
Display: LCD display, backlit display
Supply voltage range: 85– 264 VAC
Rated power consumption: 5 VA, protection degree: IP51 (front), IP20 (rear)
Mains type: 3-phase (3 or 4 conductors), 2-phase (2 conductors) and 1-phase (1 conductor), colour: black, conformity: CE-compliant
Rated insulation voltage: 300 VAC (EN 61010-1)
Overvoltage category: II, ambient temperature (operational): -25°C to 55°C, ambient temperature (storage/transport): -25°C to 70°C
Max. perm. humidity (operation): 85%, height above sea level < 2000 m
Connection data: flexible conductor cross-section min.: 0.5 mm², flexible conductor cross-section max.: 2.5 mm², rigid conductor cross-section

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Technical data

min.: 0.2 mm², rigid
conductor cross-section
max.: 4 mm², type of
connection: screw
connection
Ordering details: product:
Weidmüller interface, type:
Power Monitor, item no.:
1423550000

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Drawings

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Measurement items

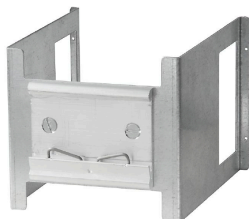
Item	Unit	Data display range
Electric energy (import)	Active kWh	0.000 to 9999999.9
	Reactive kvarh	
	Apparent kVAh	
Electric energy (export)	Active kWh	0.000 to 9999999.9
	Reactive kvarh	
	Apparent kVAh	
Instantaneous electric power	Active kW	-99999 to 0.000 to 99999
	Reactive kvar	
	Apparent kVA	
Current	A	0.000 to 8000.0
Voltage	V	0.00 to 99999
Power factor		-1.000 to 0.000 to 1.000
Frequency	Hz	0.00 to 99.99
Conversion value		0.000 to 9999999.9
Temperature	°C	-100.0 to 0.0 to 100.0

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www.weidmueller.com**Accessories****Accessories****General ordering data**

Type	POWER MONITOR BRACKET	Version	
Order No.	2091060000		
GTIN (EAN)	4050118421903		
Qty.	1 ST		