

ENERGY METER 700-PN-24

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

www.weidmueller.com



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 items |

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Technical data

Approvals

Approvals CE; CULUS

Approvals CE

Approvals



ROHS Conform

UL File Number Search [UL Website](#)

Certificate no. (cULus) E469563

Dimensions and weights

| | | | |
|------------|-------|-----------------|-------------|
| Depth | 72 mm | Depth (inches) | 2.8346 inch |
| Height | 96 mm | Height (inches) | 3.7795 inch |
| Width | 96 mm | Width (inches) | 3.7795 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 |

Environmental Product Compliance

RoHS Compliance Status Compliant without exemption

REACH SVHC No SVHC above 0.1 wt%

Measuring current input

| | | | |
|------------------------------|---------|--------------------------------|---------|
| Housing main material | Plastic | Rated current | 1 / 5 A |
| Current-measuring channels | 4 + 2 | Measuring accuracy for current | 0.2 % |
| Residual current measuring | Yes | Harmonics, per order / current | 1.-40. |
| Distortion factor THD-I in % | Yes | Max. current | 5000 A |

Measuring voltage input

| | | | |
|------------------------------------|--|------------------------------------|-------|
| Low voltage network | 3 phase 4 wire (L1 + L2 + L3 + N), 3 phase 3 wire (L1 + L2 + L3) | Measuring accuracy for voltage | 0.2 % |
| Three-wire system | Yes | Quadrants | 4 |
| Harmonics, per order / voltage | 1.-40. | Distortion factor THD-U in % | Yes |
| Measurement range, voltage L-L, AC | 480 V | Measurement range, voltage L-N, AC | 277 V |
| Four-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 |
|-----------|---|----------|---|

Inputs/outputs

| | | | |
|--|---|---------------------------|---|
| Number of digital inputs | 3 | Number of digital outputs | 5 |
| Analogue inputs (RCM, temperature, analogue) | 2 | Number of pulse outputs | 5 |

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|-------------------|-----|
| Temperature input | Yes |
|-------------------|-----|

Measurement data recording

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

Technical data

| | | | |
|---|--|--|--|
| Version | Power measurement/ display for 1-, 3-phase mains | Input frequency | <20 Hz |
| Type of mounting | Frontpanel mounting | Protection degree | IP20, IP40 |
| Rated current | 1 / 5 A | Max. current | 5000 A |
| Display monitoring (monitor) | LCD | 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 | Supply voltage | 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 |
|------------------------|---------------|

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 | | |

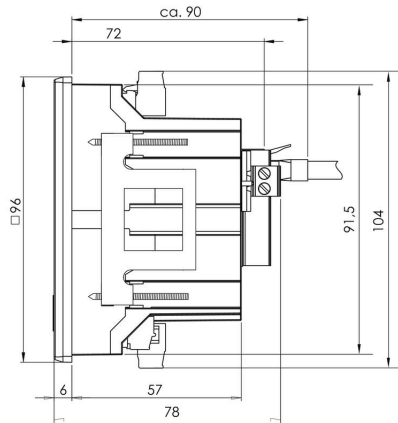
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Drawings

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Dimensioned drawing



Dimensioned drawing

