

ENERGY METER 700-PN-24

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 16

D-32758 Detmold

Germany

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Product image



Energy meters

Many companies would like to save energy at source, use energy more efficiently and maximise the availability of energy networks. This not only shows responsibility, but is also recommended for economic reasons.

Weidmüller energy meters can do far more than just measure the consumption of electrical energy. For example, the basic parameters for energy quality can also be determined or the currents of all conductors can be analysed individually or differentially - e.g. with our Energy Meter. This allows you a quick status overview of the electrical energy in your production facility. This applies both in relation to efficient usage, as well as to quality, stability and availability.

General ordering data

| | |
|------------|----------------------------|
| Type | ENERGY METER 700-PN-24 |
| Order No. | 2500870000 |
| Version | Supply voltage : 24 V |
| GTIN (EAN) | 4050118513929 |
| Qty. | 1 pc(s). |

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Technical data**Dimensions and weights**

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

Temperatures

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

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 |
|-----------|--|----------|---|

Inputs/outputs

| | | | |
|--------------------------|---|---------------------------|-----|
| Number of digital inputs | 3 | Number of digital outputs | 5 |
| 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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Technical data**Technical data**

| | | | |
|---|---|--|---------------|
| 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 | Effective value from the period (50/60 Hz) | 10 / 12 |
| Measurement result per second | 5 | Residual current measuring | Yes |
| 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 | Current-measuring channels | 4 + 2 |
| 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 |

Classifications

| | | | |
|------------|-------------|------------|-------------|
| ETIM 5.0 | EC001102 | ETIM 6.0 | EC002301 |
| UNSPSC | 39-12-15-35 | eClass 6.2 | 27-20-03-90 |
| eClass 7.1 | 27-37-18-01 | eClass 8.1 | 27-37-18-01 |
| eClass 9.0 | 27-14-23-30 | eClass 9.1 | 27-21-03-01 |

Approvals

Approvals



| | |
|-----------|---------|
| Approvals | CE |
| ROHS | Conform |

Downloads

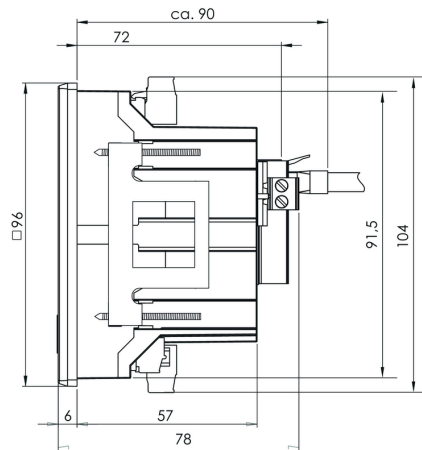
| | |
|---|--|
| Approval/Certificate/Document of Conformity | Certificate of PROFenergy Module Certificate of PROFINET IO Device EU-Declaration of Conformity |
| Engineering Data | PN 700-PN GSDML file |
| Software | MODBUS address list Win64 - ecoExplorer go Unix - ecoExplorer go Win32 - ecoExplorer go Linux64 - ecoExplorer go Linux32 - ecoExplorer go |
| User Documentation | Quick Guide German/English Manual ECOEXPLORER GO English Application Note Manual Energy Meter 700 German/English |

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Drawings**Dimensioned drawing****Dimensioned drawing**