

**ENERGY METER 610-PB-24****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

**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**

|            |                            |
|------------|----------------------------|
| Version    | Supply voltage : 24 V      |
| Order No.  | <a href="#">2540860000</a> |
| Type       | ENERGY METER 610-PB-24     |
| GTIN (EAN) | 4050118552980              |
| Qty.       | 1 pc(s).                   |

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

|                |           |                 |            |
|----------------|-----------|-----------------|------------|
| Depth          | 65 mm     | Depth (inches)  | 2.559 inch |
| Height         | 96 mm     | Height (inches) | 3.78 inch  |
| Net weight     | 250 g     | Width           | 96 mm      |
| Width (inches) | 3.78 inch |                 |            |

**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      | Distortion factor THD-I in %   | Yes   |
| Harmonics, per order / current | 1.-40. | Measuring accuracy for current | 0.2 % |
| 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,<br>Profibus DP, USB | Protocol | Modbus RTU, Profibus DP<br>V0 |
|-----------|----------------------------------------------|----------|-------------------------------|

**Inputs/outputs**

|                          |   |                           |    |
|--------------------------|---|---------------------------|----|
| Number of digital inputs | 4 | Number of digital outputs | 6  |
| Number of pulse outputs  | 6 | Temperature input         | No |

**Measurement data recording**

|                                    |          |                          |                 |
|------------------------------------|----------|--------------------------|-----------------|
| Memory; minimum and maximum values | Yes      | Memory size              | 256 MB          |
| Number of memory values            | 10,000 k | Update interval register | 200 ms          |
| Min. memory recording interval     | 60 s     | Software                 | ecoExplorer go® |
| Integrated logic                   | Yes      |                          |                 |

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## Technical data

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|                                                       |               |                                            |                                                    |
|-------------------------------------------------------|---------------|--------------------------------------------|----------------------------------------------------|
| Protection degree                                     | IP20, IP40    | Standards                                  | DIN EN 61326-1,<br>IEC 61010-1, IEC<br>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                             | 24 - 90 V AC (50/60 Hz),<br>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             | Effective value from the period (50/60 Hz) | 10 / 12                                            |
| Residual current measuring                            | No            | Current-measuring channels                 | 4                                                  |
| 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            | Clock                                      | 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 |
|------------------------|---------------|

## Classifications

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC002301    | ETIM 7.0    | 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 |

## Approvals

Approvals



|                       |         |
|-----------------------|---------|
| Approvals             | CE      |
| ROHS                  | Conform |
| UL File Number Search | E469563 |

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### Downloads

|                                             |                                                                                                                                                          |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">EU-Declaration of Conformity</a>                                                                                                             |
| Software                                    | <a href="#">MODBUS address list</a><br><a href="#">GSD DATA</a><br><a href="#">Win64 - ecoExplorer go</a><br><a href="#">USB File</a>                    |
| User Documentation                          | <a href="#">Quick Guide German/English</a><br><a href="#">Manual ECOEXPLORER GO English</a><br><a href="#">Manual Energy Meter 610 PB German/English</a> |
| Brochure/Catalogue                          | <a href="#">Catalogues in PDF-format</a>                                                                                                                 |

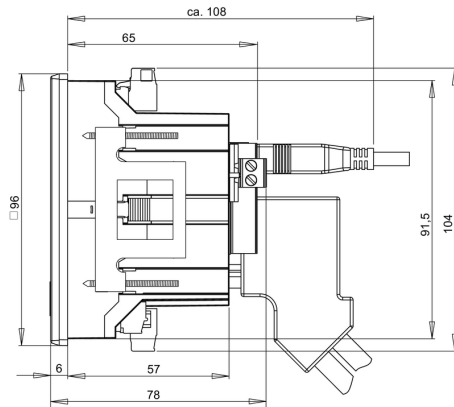
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## Drawings

### Dimensioned drawing



### Dimensioned drawing