



# ModBUS Power Meter for 6-channel Continuous Current with OLED display and Hall effect sensors

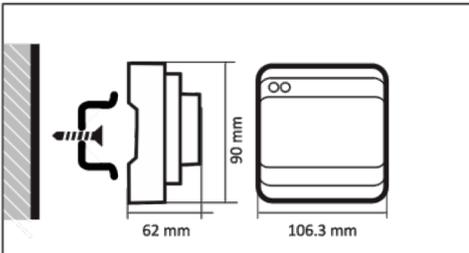
## KET-MDC-416

### Applications

Monitoring consumption

- Oled graphic display
- Small Hall Sensor
- Integrated calibration menu
- ModBUS RTU protocol

The **KET-MDC-416** is an **energy meter** specifically designed for **direct current (DC)** loads. This advanced device is capable of monitoring up to **6 channels** simultaneously, with currents ranging from **-2500 A to +2500 A**. For signal transduction, the meter utilizes **compact Hall sensors**, connected via **2-meter long cables**, ensuring flexibility in sensor installation and placement. Thanks to the **integrated display**, it is possible to view in real-time for each of the 6 channels the values of **current**, **power**, and the **energy counter**, in addition to the **supply voltage** common to all channels. This feature offers immediate and detailed local consumption monitoring. The KET-MDC-416 is equipped with an **RS485** interface with **ModBUS RTU** protocol, ensuring compatibility with any third-party ModBUS RTU master, facilitating integration into existing supervision and control systems. This energy meter is particularly suitable for applications in the **TelCo** sector, thanks to its **wide supply voltage range**. A distinctive feature of the **KET-MDC-416** is its **self-powering** directly from the voltage used for energy calculation, simplifying installation and reducing the need for external power supplies.



### Technical Features

|                        |   |
|------------------------|---|
| General specifications | <b>Protection Range:</b> Front: IP40; Screw Terminals: IP20<br><b>Operative Temperature:</b> -30 ÷ +70 °C   |
| Case                   | <b>Dimensions:</b> 106,3 x 90 x 62 mm (W x H x D)<br><b>Mounting:</b> Wall mounting or on DIN rail<br><b>Required DIN modules:</b> 6 DIN modules<br><b>Electric Board Type:</b> Industrial or switchboard<br><b>Material:</b> Blend PC/ABS self extinguishing UL94-V0   |
| Power supply           | <b>Supply Voltage:</b> 20 ÷ 60 VDC not isolated<br><b>Consumption:</b> < 1.5 W @ 20 ÷ 60 VDC<br><b>Connectors types:</b> Removable screw terminals  |
| Rs485 interface        | <b>Supported Protocols:</b> ModBUS RTU<br><b>Connectors types:</b> Removable screw terminals  |
| Current sensor         | <b>Sensor Type:</b> Hall effect probe<br><b>Current Range:</b> -2500 ÷ +2500 A<br><b>Typical Sensitivity:</b> 280 V/T<br><b>Precision:</b> 0.5%<br><b>Tolerance:</b> 1%<br><b>Linearity:</b> ± 0.2%<br><b>Linearity Range:</b> -7.5 +7.5 mT<br><b>Nonlinearity:</b> ±1%<br><b>Temperature Drift:</b> < ±200 ppm/°C<br><b>Noise Spectral Density:</b> <125 nT/sqrt(Hz) (f = 10 Hz ÷ 10 Hz) |
| Measuring range        | <b>Detected:</b> Current and Voltage<br><b>Calculated:</b> Power and energy for each channel, as well as total values, with energy calculation accuracy of 0.5%.  |
| Certifications         | <b>Approvals:</b> CE<br><b>Security:</b> EN61010-1<br><b>Metrology:</b> EN61000-6-2, EN61000-6-4  |