



# ModBUS Pulse Counter for Fiscal Energy Meters with integrated Pulse Repeater

- Compatible with Signal Emission Boards (ES)
- Manages consumption and production counters
- Instant power calculation
- Calculation of consumption by time slot

## KET-MES-610

### Applications

Monitoring consumption

The **KET-MES-610** is a pulse counter that connects to the **standard ES** (signal emission) interface of the electricity meters, equipped with **6 digital inputs** with signal repeater for clean contacts: 2 for active and reactive energy withdrawn; 2 for active and reactive energy injected; 2 for tariff bands. It is equipped with an RS485 interface with ModBUS RTU protocol compatible with KET-RMB-211 ModBUS bridge/Master and X-Monitor Gateways.

Maximum flexibility of power supply, direct from the mains or low voltage, both DC and AC. Format suitable for mounting in electrical panel on DIN-rail. The internal **F-RAM memory** for the continuous saving of the meters allows to keep the data even in case of sudden power failure. KET-MES-610 allows the input of K and C factors for the withdrawn counter and for the grid feed counter, in this way it **calculates in real time the kWh of active and reactive energy and the instantaneous powers** for each counter. Moreover, if the relative contacts of the F1, F2 and F3 bands are active, it sums up on three distinct counters the active energy withdrawn.

These features make the KET-MES-610 the ideal instrument for **UVAC, UVAP and UVAM systems for the MSD**.

### Technical Features

General specifications	<b>Protection Range:</b> Front: IP40; Screw Terminals: IP20 <b>Operative Temperature:</b> -20 ÷ +60 °C <b>Storage Temperature:</b> <b>Relative Humidity:</b>
Case	<b>Dimensions:</b> 88 x 110 x 60 mm (W x H x D) <b>Mounting:</b> Wall mounting or on DIN rail <b>Required DIN modules:</b> 5 DIN modules <b>Electric Board Type:</b> Industrial <b>Material:</b> Blend PC/ABS self extinguishing UL94-V0
Power supply	<b>Supply Voltage:</b> 9 ÷ 24 VDC, 9 ÷ 20 VAC; 230 VAC with integrated power supply <b>Consumption:</b> < 1.5 W @ 9 ÷ 20 VAC / < 1.5 W @ 9 ÷ 24 VDC / < 1.5 W @ 230 VAC <b>Connectors types:</b> Screw terminal
Datalogger function	<b>Memory Type:</b> Flash: 256KB; E <sup>2</sup> PROM: 4KB; RAM: 16KB <b>Data Storage Capacity:</b> Internal F-RAM to ensure data storage even in case of power failure
Rs485 interface	<b>Supported Protocols:</b> ModBUS RTU <b>Communication Rate:</b> <b>Isolation:</b> <b>Connectors types:</b> Screw terminal
Es interface	<b>Ingressi:</b> 6 clean contacts - 2 for active and reactive energy used; 2 for active and reactive energy sold; 2 for tariff bands - 1 common <b>Response Time:</b> 80 ms <b>Maximum Working Voltage:</b> 500 VDC <b>Maximum Rated Current:</b> 1 A <b>Isolation:</b> 2000 VAC
Es interface output	<b>Channels:</b> 6 clean contacts - 2 for active and reactive energy used; 2 for active and reactive energy sold; 2 for tariff bands - 1 common <b>Maximum Rated Current:</b> 50 mA <b>Isolation:</b> 1 kV

