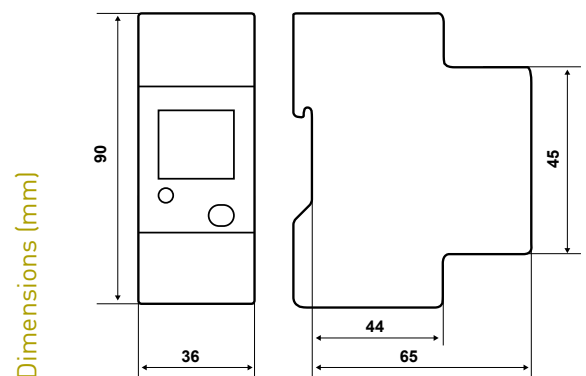


VM802

Energy meter, compact, single-phase, 80A, 2 wires

Compact-design active energy meter with direct connection in 2 DIN modules only, 7-digit LCD display, intended for measuring electric energy both in housing units and in business and industrial units; it comes with MID certification and is therefore suitable for billing. This meter can communicate with other monitoring and control systems via an optical port coupled with a set of external modules available for the most common protocols.



Power Supply I_{max} I_{ref} (I_b) I_{tr} I_{min} I_{st} Options Availability

VM802MA	230V 50Hz 2 wires	80A	5A	500mA	250mA	20mA	MID certification	in stock
VM802A	230V 50Hz 2 wires	80A	5A	500mA	250mA	20mA	-	in stock
VM802RA	230V 50Hz 2 wires	80A	5A	500mA	250mA	20mA	resettable total meters *	on request

* Note: all partial meters models are resettable.

ELECTRICAL FEATURES

Power supply: 230V (±20%) 50Hz derived from metering circuit.

Consumption ≤1 W.

Current:

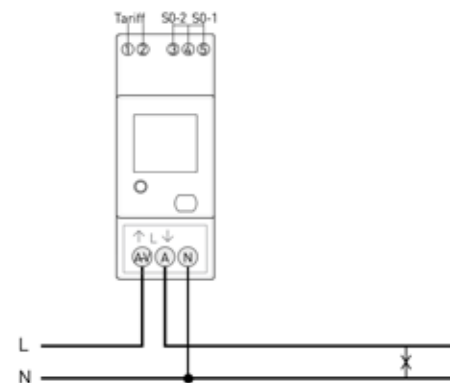
- Max value I_{max}: 80A
- Value I_{ref} (I_b): 5A
- Value I_{tr}: 500mA
- Value I_{min}: 250mA
- Start current I_{st}: 20mA

Accuracy:

- Active energy: class B according to EN50470-3
- Reactive energy: class 2 according to EN62053-23

Outputs and inputs:

- 2 pulse outputs (ON-50ms OFF-50ms ±2ms), opto-isolated passive (max 250Vac-dc 100mA);
- 1 tariff input, opto-isolated active (max 276Vac-dc);
- 1 metrological LED with 1000 pulse/KWh integrating constant.



HOMOLOGATION AND STANDARDS

EN50470-3 class B; EN60253 Class 2; MID Certification (model "VM802MA").

INSTALLAZIONE

DIN rail, 2 modules;

OPERATION

This meter, in addition to energy, reads also the main electric parameters and provides them to the optical communication port. The LCD displays energy and instantaneous values readouts.

The energy meter has been implemented in full compliance with European Norm EN50470-1. Active energy accuracy falls within the limits set out for Class B according to EN50470-3. Reactive energy accuracy complies with European Norm EN60253-23 Class 2.

- Metering carried out on the four dials, bidirectional values for totalizing power import/export (absorbed/supplied).
- 8 instantaneous parameters read, full set of energy meters (refer to the table), including 2 tariffs and resettable partial energy meters. Partial meters can be started, stopped or reset. The VM802RA version (no MID) allows to reset all meters (individually or in block) via keyboard.
- LCD display, backlit, wide, 7-digits. Thorough symbols for prompt reading of the state and values displayed. Energy instantaneous values displaying.
- Metrological LED on the front panel.
- Two S0 outputs for transmitting energy metering pulses to other devices.
- Auxiliary input for high/low tariff switching.
- Optical port (on left side) for coupling with communication modules series VM001x.
- Sealable terminal cover (MID version).

The analysis of the MTBF value (reliability coefficient), the accurate selection of components as well as the low internal working temperatures, together with rigid and severe manufacturing and control standards, ensure top-quality and excellent-reliability products.

MEASUREMENTS

INSTANTANEOUS VALUES	SYMBOL	UNIT	DISPLAY	COM PORT	S0 OUTPUT
Voltage	V	kV		●	
Current	I	kA		■	
Power factor	PF			●	
Apparent power	S	kA	■	■	
Active power	P	kW	■	■	
Reactive power	Q	kvar	■	■	
Frequency	f	kHz		●	
Energy flow	IMP/EXP		●	●	

INSTANTANEOUS VALUES	SYMBOL	UNIT	DISPLAY	COM PORT	S0 OUTPUT
Total active energy	L	kWh	■	■	■
Total reactive energy (ind. and cap.)	L	kvarh	■	■	■
Total apparent energy (ind. and cap.)	L	kVAh	■	■	■
T1/T2 tariff energy meters	L	kWh, kvarh, kVAh	■	■	
Resettable partial energy meters	L	kWh, kvarh, kVAh	■	■	
Energy balance	L	kWh, kvarh, kVAh	■	■	

- STANDARD
- BIDIRECTIONAL VALUE

DATA	SYMBOL	VALUE/STATE	DISPLAY	COM PORT
Running tariff	T	1/2		•
Voltage Over/Under Limit	VOL,VUL	ON/OFF		•
Current Over/Under Limit	IOL,IUL	ON/OFF		•
Frequency Over/Under Limit	fOL,fUL	ON/OFF		•
Partial meters	PAR	START/STOP	•	•
Communication (ON)	COM	ON/OFF	•	
Pulse S0 (ON)	S0-1, S0-2	ON/OFF	•	
Error condition	ERR	01/02/OFF	•	•

- STANDARD
- BIDIRECTIONAL VALUE

Column "S0 OUTPUT" shows all system counters which can be selected for S0 outputs. It is not possible to set the same counter for both outputs.

APPLICATIONS:

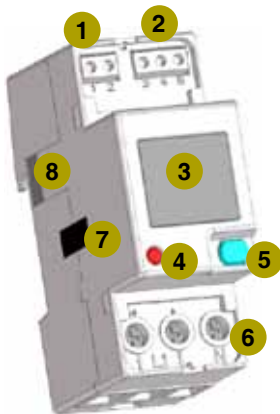
- Industrial energy logging for individual production lines or machines.
- Measurement of renewable energy from photovoltaic systems, wind power turbines, etc.
- Logging and billing of energy consumption at campsites, shopping centers, housing developments, wharfs, etc.
- Individual energy consumption logging for hotels, convention centers and trade fair facilities.
- Energy consumptions billing for business centers.
- Internal cost distribution for civil and/or industrial multi-owned and/or subleased buildings.
- Implementation of energy monitoring and control systems.
- Remote consumption metering and reading and cost calculation.

FEATURES

Operating temperature -25÷55°C

Relative humidity: max 80% (non-condensing).

Protection level: IP51 (front panel), IP20 (terminal block compartment).



- 1 Tariff input terminals
- 2 Terminals for both S0 outputs
- 3 Backlit LCD display
- 4 Metrological LED
- 5 Multifunction key
- 6 Neutral, voltage, current terminals
- 7 Anti-tampering seal-label
- 8 Optical communication port (for VM001x modules)

ACCESSORIES



VM001A
RS485-MODBUS communication module

VM001B
M-BUS communication module

VM001C
LAN-GATEWAY communication module