



ME162


Single-phase meter


The **ME162** single-phase electronic meters are intended for electric energy measurement and registration in single-phase two-wire networks in household. The meters comply both with European (EN 50470-1 and EN 50470-3) and international (IEC 62052-11, IEC 62053-21) standards, and are designed and manufactured in compliance with the ISO 9001 standard.





-  Active energy







-  One or two energy flow directions

-  Multirate registration

-  Internal time switch

-  Data display

-  Impulse output (on request tariff output)

-  Internal clock
-  LCD with No-power reading option
-  LCD backlight (option)
-  Optical port for local data downloading and meter programming
-  Compact design
-  Energy measurement: one or two energy flow directions, absolute energy measurement

FUNCTIONAL AND TECHNICAL DATA

ME162 single-phase meter is intended for residential and small commercial customers. It is used for revenue measuring of active energy in two wire networks.

Measuring and registration: One energy flow direction (import) measurement with built-in reverse running stop.

Two energy flow directions (import and export). Always positive (absolute).

Accuracy/calibration: Due to the long-term stability there is no need for recalibration in meter life.

Indications: LED 1 (red): kWh impulses (k=1000 imp/kWh)

Blinking: load current is higher than starting value

Turned-on: voltage applied to the meter, load current is lower than the starting current

Turned off: no voltage applied to the meter

Communication: Optical port (IEC 62056 – 21): for local meter reading and programming.

Real time clock:

- 32 kHz quartz crystal
- Time keeping accuracy better than prescribed by IEC 42054-21
- RTC backup power supply: Li-battery
- The real time clock enables: tariff changeover, seasons changeover, transition to day light saving period and vice-versa.

Inputs: Two tariff inputs for 2-4 tariff energy registration.

Outputs: Class A by IEC 62053-31 (S0 by DIN 43864) or opto-MOS-relay.

Option: two separate S0 or optomos outputs at two energy flow direction meters (kWh-import, kWh- export).

Local metering data display (LCD):

- Automatic scroll mode
- Manual scroll (with a button). Programmable data set and sequence
- LCD back-light (option)
- LCD with No-power reading option

Scroll key: - LCD test
- Scrolling data on LCD

Enclosure: Polycarbonate, self-extinguishing UV-stabilized.

Protection against water and dust: IP 53.

Terminal block complies with DIN 43857 or BS 5685 standard

Terminal cover: long or short

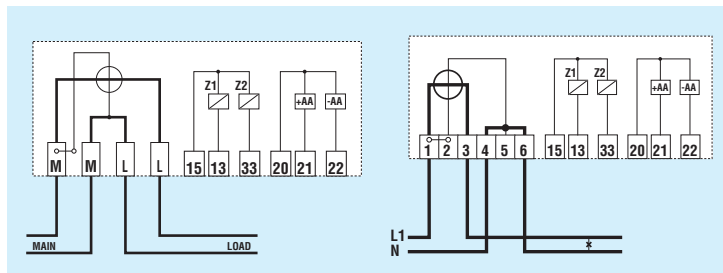
TYPE DESIGNATION FOR ORDERING

ME162-D1A41-V22G22-M3K0

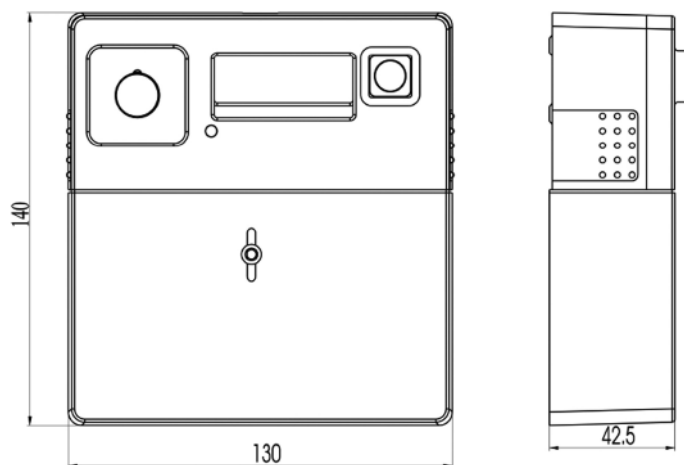
- M** - Electronic meter
- E** - Single-phase meter
- 162** - Meter with LCD and internal clock
- D1** - Terminal block for direct connection up to 85 A by DIN 43857
- D3** - Terminal block for direct connection up to 100 A by BS 5685
- A4** - Active energy measurement, accuracy class B (by EN 50470-3) 1 (by IEC 62053-21)
- A5** - Active energy measurement, accuracy class A (by EN 50470-3) 2 (by IEC 62053-21)
- 1** - Energy measurement in one direction
- 2** - Energy measurement in two directions
- 4** - Absolute energy measurement
- V12** - 1 tariff input
- V22** - 2 tariff inputs
- G12** - 1 impulse S0 output
- G22** - 2 impulse S0 outputs
- L11** - 1 OPTOMOS relay, make contact
- L21** - 2 OPTOMOS relays, make contact
- M** - Additional device
- 3** - Real time clock with Li-battery
- K0** - Communication channel. Optical port IEC 62056-21

Accuracy class	... A or B (by EN 50470-3) / 2 or 1 (by IEC 62053-21)
Reference / Basic current I _b	... 5, 10, 20 A
Max. current I _{max}	... 85 A (for DIN standard terminal block), 100 A (for BS standard terminal block)
Min. current	... 0.05 I _b
Starting current	... 0.004 I _b
Reference voltage U _n	... 120, 220, 230, 240 V
Voltage range	... 0.80 U _n ... 1.15 U _n
Reference frequency	... 50 Hz or 60 Hz
Meter constant	... 1000 imp/kWh
Clock accuracy (25°C)	... ≤ 6 ppm or ≤ ± 3 min/year
RTC control	... 32 kHz crystal
Temperature range of operation	... -40°C ... +60°C (LCD: -25°C ... +60°C)
Extended temp. range	... -40°C ... +70°C
Storing temperature	... -40°C ... +85°C
Current circuit burden	... <25 mW / 25 mVA
Voltage circuit burden	... <0.8 W / 10 VA
Dielectric strength (burst test)	... 4 kV, 50 Hz, 1 min
Impulse voltage	... 6 kV, 1.2/50 μs
Short-circuit current	... 30 I _{max}
EMC: burst test	... 6 kV (IEC 61000-4-4)
Optical port	... IEC 62056-21
Impulse outputs:	
S0	... t _i = 40 ms (10, 20, 30, ..., 160 ms)
opto-MOS	... t _i = 80 ms (10, 20, 30, ..., 160 ms)
Switching capacity	... 25 VA (100 mA, 250 V)
Dimensions (h x w x d)	... 97 x 130 x 43 mm
Mass	... Approx. 0.380 kg

CONNECTION DIAGRAM



DIMENSIONS



UK DISTRIBUTOR & RESELLER:



Tel: 0845 604 7244

Email: info@smsmetering.co.uk

41 London Road, Castle Court, Reigate RH2 0DD
WWW.SMSMETERING.CO.UK

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