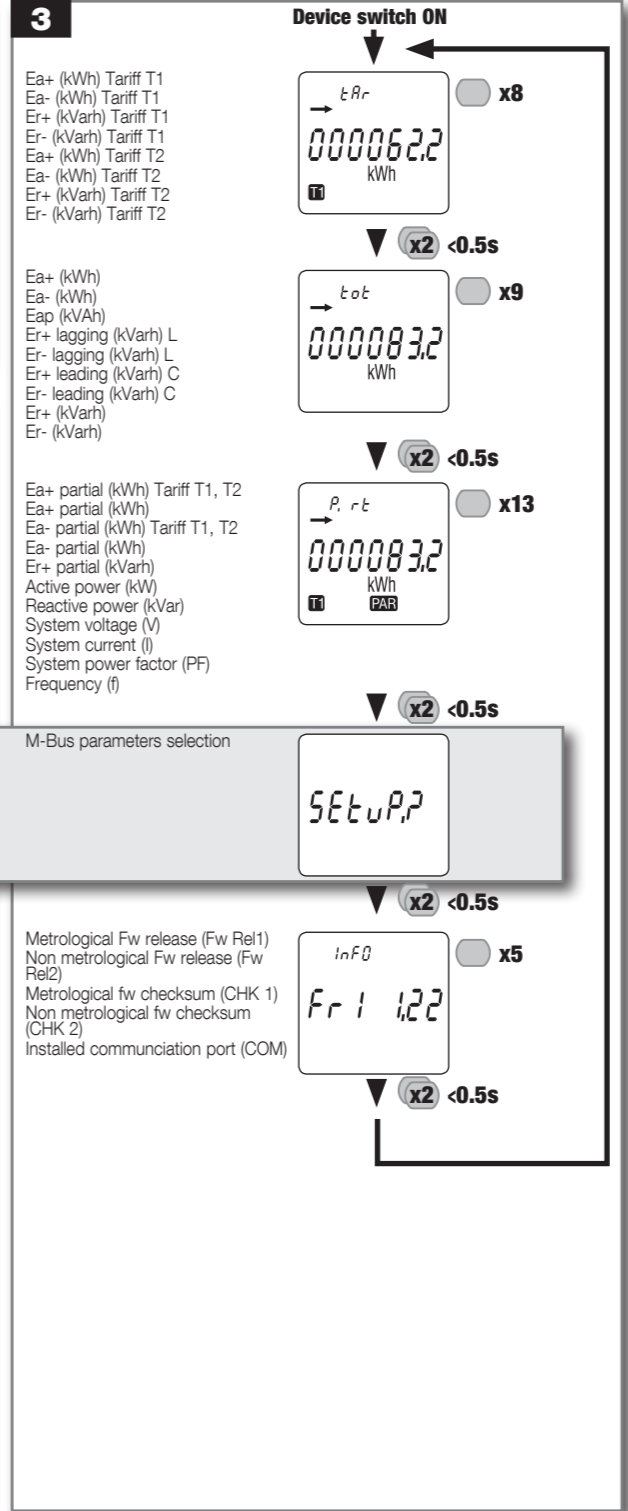
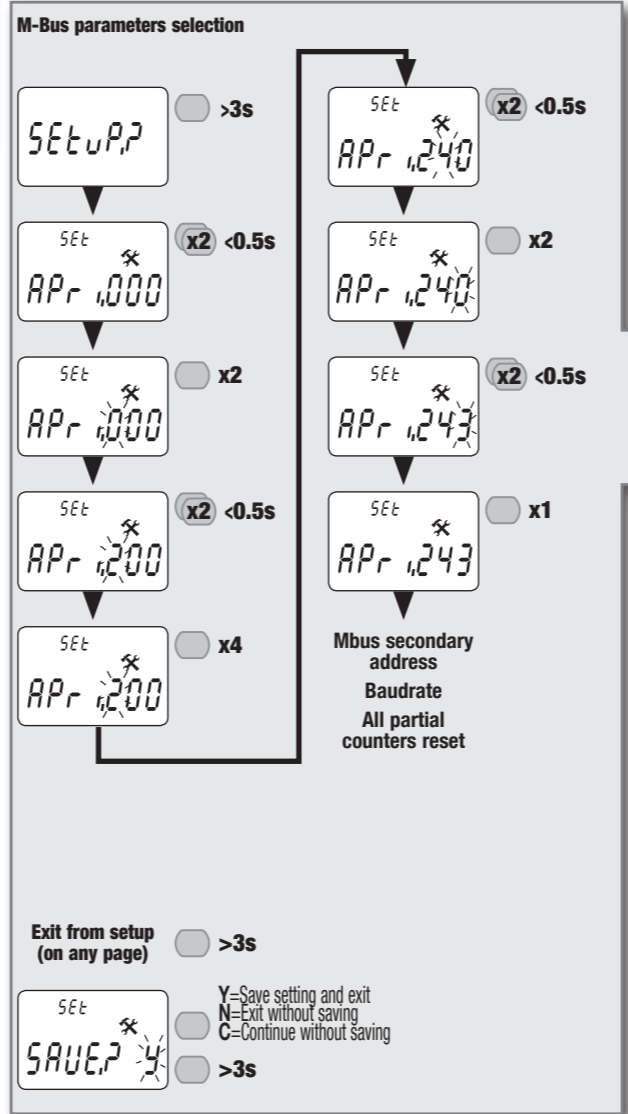
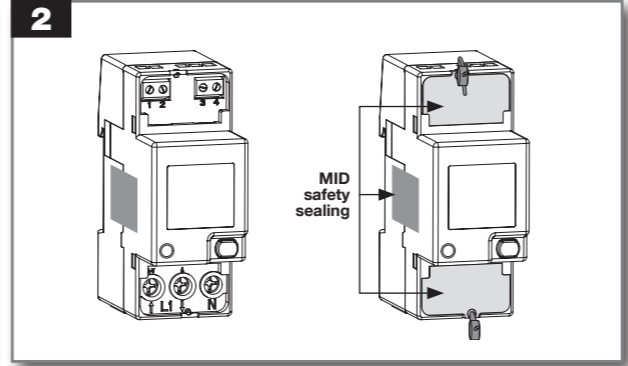
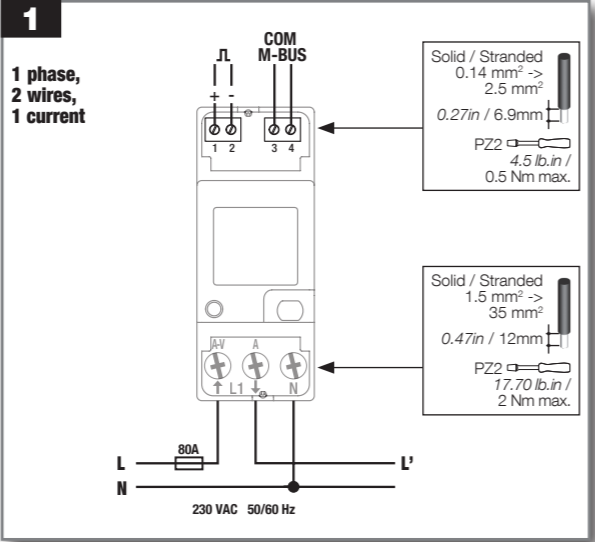




### Measurements

The parameters are available according to the device model.

| Instantaneous values                            | Symbol | Measure unit      | Display | Com. |
|-------------------------------------------------|--------|-------------------|---------|------|
| Phase to Neutral voltages                       | V      | V                 | ●       | ●    |
| Current                                         | I      | A                 | ●       | ●    |
| Power factor                                    | PF     |                   | ●       | ●    |
| Apparent power                                  | S      | kVA               | ●       |      |
| Active power                                    | P      | kW                | ●       | ●    |
| Reactive power                                  | Q      | kvar              | ●       | ●    |
| Frequency                                       | f      | Hz                | ●       |      |
| Power direction                                 | ↔      |                   | ●       |      |
| Recorded data                                   |        |                   |         |      |
| Total energy counters                           | Ea, Er | kWh, kvarh        | ●       | ●    |
| Total apparent energy                           | Eap    | kVAh              | ●       |      |
| Total ind. and cap. reactive energy             | Er     | kvarh             | ●       |      |
| T1/T2 tariff energy counters                    | Ea, Er | kWh, kvarh        | ●       | ●    |
| T1/T2 tariff resettable partial energy counters | Ea     | kWh               | ●       |      |
| Resettable partial energy counters              | Ea, Er | kWh, kvarh        | ●       | ●    |
| Other information                               | Symbol | Value/status      | Display | Com. |
| Present tariff                                  | T      | 1/2               | ●       |      |
| Partial counters                                | PAR    | START/STOP        | ●       |      |
| S0 output status                                |        | Active/Not active | ●       |      |



**Technical characteristics**  
Data in compliance with EN 50470-1, EN 50470-3

| General                                                         |                                               |
|-----------------------------------------------------------------|-----------------------------------------------|
| Housing                                                         | 2 modules DIN 43880                           |
| Mounting                                                        | DIN rail EN 60715                             |
| Operating features                                              |                                               |
| Connectivity                                                    | 2 wires 230 to 240V                           |
| Storage of energy values and configuration                      | yes FRAM                                      |
| Display tariffs identifier                                      | T1 and T2                                     |
| Supply                                                          |                                               |
| Autosupplied                                                    |                                               |
| Operating voltage range                                         | 184 ... 288 VAC                               |
| Operating frequency range                                       | 45 ... 65 Hz                                  |
| Rated power dissipation (max.) P <sub>v</sub>                   | 7.5VA - 0.5W                                  |
| Overload capability                                             |                                               |
| Voltage U <sub>n</sub> continuous                               | 276 VAC                                       |
| Voltage U <sub>n</sub> momentary (1 s)                          | 300 VAC                                       |
| Current I <sub>max</sub> continuous                             | 80 A                                          |
| Current I <sub>max</sub> momentary                              | 30 I <sub>max</sub> for 1/2c                  |
| Display                                                         |                                               |
| Display type                                                    | LCD 7 digits with backlight                   |
| Active energy: 1 display, 7-digit                               | 000000.0 ... 999999.9 kWh                     |
| Reactive energy: 1 display, 7-digit                             | 000000.0 ... 999999.9 kvarh                   |
| Apparent energy: 1 display, 7-digit                             | 000000.0 ... 999999.9 kVAh                    |
| Instantaneous active power: 1 display, 4-digit                  | 00.00 ... 99.99 kW                            |
| Instantaneous reactive power: 1 display, 4-digit                | 00.00 ... 99.99 kvar                          |
| Instantaneous voltage: 1 display, 4-digit                       | 000.0 ... 999.9 V                             |
| Instantaneous current: 1 display, 4-digit                       | 00.00 ... 99.99 A                             |
| Power Factor: 1 display, 4-digit                                | 0.001 ... 1.000                               |
| Frequency: 1 display, 4-digit                                   | 45.00 ... 65.00 Hz                            |
| Display period refresh                                          | 1 s                                           |
| Measuring accuracy                                              |                                               |
| Active energy                                                   | class B acc. to EN 50470-3                    |
| Active energy                                                   | class 1 acc. to EN 62053-21                   |
| Reactive energy                                                 | class 2 acc. to EN 62053-23                   |
| Measuring input                                                 |                                               |
| Type of connection                                              | direct phase/N                                |
| Certified voltage U <sub>n</sub>                                | 230/240 VAC                                   |
| Current I <sub>ref</sub>                                        | 5 A                                           |
| Current I <sub>min</sub>                                        | 0.25 A                                        |
| Operating range current (I <sub>st</sub> ... I <sub>max</sub> ) | 0.020 ... 80 A                                |
| Certified frequency f <sub>n</sub>                              | 50/60 Hz ± 1 Hz                               |
| Starting current for energy measurement (I <sub>st</sub> )      | 20 mA                                         |
| Optical interfaces (LED)                                        |                                               |
| Meter constant                                                  | 1 Wh/imp                                      |
| S0 Output                                                       |                                               |
| Type                                                            | Optoisolated - 27VDC 27mA acc. to EN 62053-31 |
| Pulse weight                                                    | 100Wh                                         |
| Safety                                                          |                                               |
| Indoor meter                                                    | yes                                           |
| Degree of pollution                                             | 2                                             |
| Operational voltage                                             | 300 VAC                                       |
| AC voltage test (EN 50470-3, 7.2)                               | 4 kV                                          |
| Impulse voltage test                                            | 6 kV 1.2/50µs                                 |
| Protection class (EN 50470)                                     | class II                                      |
| Housing material flame resistance                               | UL 94 class V0                                |
| Embedded communication                                          |                                               |
| M-Bus                                                           | 300, 600, 1200, 2400, 4800, 9600 bps          |
| Isolation class                                                 | SELV Circuit                                  |
| Environmental conditions                                        |                                               |
| Mechanical environment                                          | M1                                            |
| Electromagnetic environment                                     | E2                                            |
| Operating temperature                                           | -25 ... +55 °C                                |
| Limit temperature of transportation and storage                 | -25 ... +75 °C                                |
| Relative humidity (not condensation)                            | ≤80 %                                         |
| Vibrations                                                      | ±0.075 mm                                     |
| Degree protection                                               | IP51(*)/IP20                                  |

(\*) For the installation in a cabinet at least with IP51 protection.

