



## CVM-C10-ITF-IN-485-IC2

CVM-C10-ITF-IN-485-IC2, Power analyzer

Code: M55942.

- > Protocol: Modbus/RTU | BACnet
- > Communications: RS-485
- > N° relays: 2
- > Digital inputs: 2
- > Measuring current Channels: 4
- > Harmonics: 31
- > Input current: .../5 A | .../1 A
- > Mounting: Pannel
- > Modules: 96 x 96

### Description

The **CVM-C10** is a panel mounted (96 x 96 mm) power analyzer that records energy values. Compact and versatile, with 4-quadrant measurement (consumption and generation). Suitable for Medium or Low voltage installations, in both 3 or 4-wire three-phase circuits, two-phase circuits with or without neutral, single-phase circuits or ARON connections.

Display features and interface:

- Backlit touch-screen (capacitive)
- Analogue display of instantaneous parameters (power, maximum power reached and  $\cos \varphi$  or PF)
- Backlit display
- Alarm LED indicator.
- Tariff cost
- Operating hour indicator for preventive maintenance

### Application

- Record the energy consumption from three different sources: network, generator set or photovoltaic energy generation system.
- Generation of an impulse signal associated with the cost, kgCO<sub>2</sub> emissions or savings, according to the consumption or generation of energy.
- Selection of tariffs with digital inputs. Perfect to calculate costs in three different work shifts.
- Programs alarms on any instantaneous parameter measured or calculated. Configurable parameters: Low/High, hysteresis (%), NO/NC, connection/disconnection delay and interlocking.



## CVM-C10-ITF-IN-485-IC2

Power analyzer for panel

Code: M55942.

### Specifications

#### AC power supply

|                       |                      |
|-----------------------|----------------------|
| Installation category | CAT III 300 V        |
| Consumption           | 4 ... 6 VA           |
| Frequency             | 50 ... 60 Hz         |
| Nominal voltage       | 95 ... 240 V ~ ± 10% |

#### DC power supply

|                       |                       |
|-----------------------|-----------------------|
| Installation category | CAT III 300 V         |
| Consumption           | 2 ... 6 W             |
| Nominal voltage       | 105 ... 272 Vdc ± 10% |

#### Mechanical characteristics

|                                  |                               |
|----------------------------------|-------------------------------|
| Size (mm) width x height x depth | 96 x 96 x 60.9 (mm)           |
| Envelope                         | Self-extinguishing V0 plastic |
| Fastening                        | Panel                         |
| Weight (kg)                      | 0,322                         |

#### Environmental characteristics

|  |   |
|--|---|
| Protection class                         | IP 51 (Front), IP 64 (with accessory), IP 21 (rear) |
| Relative humidity (without condensation) | 5 ... 95%   |
| Storage temperature                      | -10... +65 °C                                       |
| Working temperature                      | -10 ...+60 °C                                       |

#### Standards

|                                       |  |
|---------------------------------------|--|
| Certifications                        | UL/CSA 61010-1 3rd edition, UL, VDE  |
| Electrical safety, Maximum height (m) | 2000   |
| Standards                             | UNE EN 61010, UNE EN 61000-6-3, UNE EN 61000-6-1, IEC 664, VDE 0110, UL 94, BS EN 61000-6-2, BS EN 61000-6-4 |

#### Current measurement circuit

|                                   |                  |
|-----------------------------------|------------------|
| Installation category             | CAT III 300 V    |
| Nominal current (In)              | .../5A , .../1 A |
| Neutral current measurement       | .../5A , .../1 A |
| Phase current measuring range     | 2 ... 120% In    |
| Maximum input current consumption | 0,9 VA           |
| Maximum pulse current             | 100 A            |
| Minimum current measurement       | 10 mA            |

#### Voltage measurement circuit



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|                                      |                       |
|--------------------------------------|-----------------------|
| Installation category                | CAT III 300 V         |
| Frequency measuring range            | 45 ... 65 Hz          |
| Voltage measuring range              | 5 ...120% Un          |
| Nominal voltage                      | 300V Ph-N, 520V Ph-Ph |
| Minimum measurement voltage (Vstart) | 15 V                  |

### Communications

|                    |                    |
|--------------------|--------------------|
| Fieldbus (BACnet)  | MS/TP              |
| Fieldbus (ModBus)  | RS-485 / RTU       |
| Stop bits (BACnet) | 1                  |
| Stop bits (ModBus) | 1-2                |
| Parity (BACnet)    | non                |
| Parity             | without, even, odd |
| Protocol           | ModBus/BACnet      |
| Speed              | 9600-19200         |

### User interface

|              |                |
|--------------|----------------|
| LED          | 3 LED          |
| Keyboard     | 3 keys         |
| Display type | LCD Custom COG |

### Digital inputs

|                         |                            |
|-------------------------|----------------------------|
| Input/output insulation | Optoisolated               |
| Quantity                | 2                          |
| Type                    | NPN Potential-free contact |

### Digital relay outputs

|                                   |                           |
|-----------------------------------|---------------------------|
| Electrical life (at maximum load) | 60x10 <sup>3</sup> cycles |
| Mechanical life                   | 10x10 <sup>6</sup> cycles |
| Maximum switching capacity        | 1500 VA                   |

### Measurement accuracy

|                           |                |
|---------------------------|----------------|
| Phase voltage measurement | 0.5% ± 1 digit |
|---------------------------|----------------|

### CVM-C10

Power analyzer, panel mounted 96 x96

| CODE    | TYPE                 | Input current     | Transistor output | N° relays | Digital inputs | Communications | Protocol            |
|---------|----------------------|-------------------|-------------------|-----------|----------------|----------------|---------------------|
| M55911. | CVM-C10-ITF-485-ICT2 | .../5 A   .../1 A | 2                 | 2         | 2              | RS-485         | Modbus/RTU   BACnet |



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Power analyzer for panel

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| CODE          | TYPE                   | Input current     | Transistor output | Nº relays | Digital inputs | Communications | Protocol            |
|---------------|------------------------|-------------------|-------------------|-----------|----------------|----------------|---------------------|
| M55921.       | CVM-C10-MC-485-ICT2    | .../250 mA        | 2                 | 2         | 2              | RS-485         | Modbus/RTU   BACnet |
| M55942.       | CVM-C10-ITF-IN-485-IC2 | .../5 A   .../1 A |                   | 2         | 2              | RS-485         | Modbus/RTU   BACnet |
| M559210000V00 | CVM-C10-mV-485-ICT2    | .../333 mV        | 2                 | 2         | 2              | RS-485         | Modbus/RTU   BACnet |

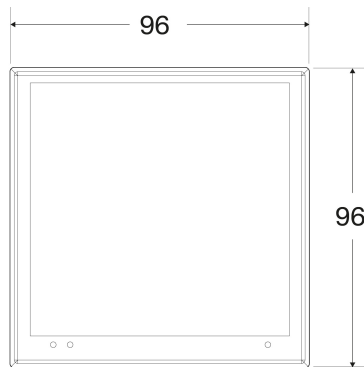
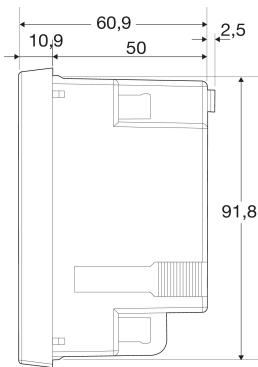


# CVM-C10-ITF-IN-485-IC2

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## Dimensions



## Connections

