



## CVM-D440-MC

CVM-D440-MC, Multi-channel network analyser with memory, DIN rail

Code: M551A4.

- > Protocol: Modbus/TCP | Modbus/RTU
- > Memory: Yes
- > Communications: Wi-Fi | Ethernet | RS-485
- > Transistor output: 4
- > Harmonics: 15
- > Input current: .../250 mA
- > Mounting: DIN rail
- > N° Input channels: 1...4(III) | 1...12(II)

### Description

The **CVM-D400** series are multi-channel power analysers designed for reading multiple loads or circuits (Branch Circuit Monitoring). These devices can manage up to 12 single-phase or 4 three-phase lines or loads, or any combination of them in a single device. They also allow each type of consumption to be labelled, grouping together the total consumption of all the loads destined for the same purpose without the need for any type of programming. The results are automatically displayed on screen or via communications. The devices are configured via an integrated web interface, accessible via Wi-Fi or Ethernet, or directly from the **MyConfig App**. Both options allow the connection to be checked and modified via the 'autowiring' option, avoiding wiring errors and saving time during commissioning.

### Application

- Measurement of electrical parameters in multi-channel installations, such as data processing centres and switchboards of single-phase loads.
- Simultaneous measurement at 4 different points in three-phase installations
- Its compact size is perfect for assembly on electric panels.



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### Specifications

#### Mechanical characteristics

|                                  |                               |
|----------------------------------|-------------------------------|
| Size (mm) width x height x depth | 105 x 104 x 72 (mm)           |
| Envelope                         | Self-extinguishing V0 plastic |
| Fastening                        | DIN rail                      |
| Weight (kg)                      | 0,5                           |

#### Environmental characteristics

|                                          |                         |
|------------------------------------------|-------------------------|
| Protection class                         | IP30, Front panel: IP43 |
| Relative humidity (without condensation) | 5 ... 95%               |
| Storage temperature                      | 10 °C... +75 °C         |
| Working temperature                      | -10 °C... +60 °C        |

#### Current measurement circuit

|                                   |               |
|-----------------------------------|---------------|
| Installation category             | CAT III 300 V |
| Nominal current (In)              | ... / 0,250 A |
| Maximum input current consumption | 0,18 VA x 4   |
| Maximum current                   | 275 mA        |
| Minimum current measurement       | 13 mA         |

#### Voltage measurement circuit

|                                      |                                          |
|--------------------------------------|------------------------------------------|
| Installation category                | CAT III 300 V                            |
| Sampling frequency                   | 45...65 Hz                               |
| Input impedance                      | 0,4 MΩ                                   |
| Frequency measuring range            | 45...65 Hz                               |
| Voltage measuring range              | 120... 300 V~Ph-N / 120 ... 520 V ~ph-ph |
| Maximum input voltage consumption    | 5...8 VA                                 |
| Minimum measurement voltage (Vstart) | 120 V ~                                  |

#### Communication Network

|                      |                                      |
|----------------------|--------------------------------------|
| Connection mechanism | RJ-45                                |
| Connection mode      | DHCP ON/OFF                          |
| Protocol             | Modbus TCP - Web server - Web socket |
| Technology / Type    | Ethernet 10BaseT - 100BaseTX         |

#### Standards

|                                              |                                                               |
|----------------------------------------------|---------------------------------------------------------------|
| Electrical safety, Maximum height (m)        | 2000                                                          |
| Electrical safety, Installation category     | CAT III 300 V                                                 |
| Electrical safety, Contamination level/class | Pollution resistance 2                                        |
| Standards                                    | UNE-EN 61000-4-4, UNE-EN 61000-4-5, UNE-EN 61000-4-11, UNE-EN |



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61000-6-3, UNE-EN 61000-6-1, UNE-EN 61010-1, UNE-EN 60068-2-1, UNE-EN 60068-2-2, UNE-EN 60068-2-78, IEC 61010-2-030, IEC 61326-1, UNE-EN 61000-4-20, ETSI EN 301 489-1 V2.2.3, ETSI EN 301 489-17 V3.2.4

### User interface

|              |        |
|--------------|--------|
| LED          | 2 LED  |
| Keyboard     | 3 keys |
| Display type | LCD    |

### Digital transistor outputs

|                   |               |
|-------------------|---------------|
| Pulse width       | 30 ... 500 ms |
| Quantity          | 4             |
| Type              | NPN           |
| Maximum frequency | 5 imp/s       |
| Maximum current   | 50 mA         |
| Maximum voltage   | 24 Vdc        |

### Measurement accuracy

|                                 |                  |
|---------------------------------|------------------|
| Phase current measurement       | 0,5% (5... 110%) |
| Active energy measurement (kWh) | 1%               |
| Active power measurement (kW)   | 1%               |
| Phase voltage measurement       | 0,5%             |

### Serial communication

|                   |            |
|-------------------|------------|
| Protocol          | Modbus RTU |
| Technology / Type | RS-485     |

### Wireless communication

|                   |                         |
|-------------------|-------------------------|
| Band              | 2,4 GHz (2,4...2,5 GHz) |
| Technology / Type | Wi-Fi                   |

### CVM-D400

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| CODE    | TYPE                | Input current | N° Input channels       | Transistor output | Communications            | Protocol                | Harmonics | Clamp   |
|---------|---------------------|---------------|-------------------------|-------------------|---------------------------|-------------------------|-----------|---------|
| M551A2. | CVM-D420-MC         | .../250 mA    | 1...2(III)   1...12(II) | 2                 | Wi-Fi   Ethernet   RS-485 | Modbus/TCP   Modbus/RTU | 15        |         |
| M55132. | CVM-D421-SCV        | .../333 mV    | 1...2(III)   1...6(II)  | 2                 | Wi-Fi   Ethernet   RS-485 | Modbus/TCP   Modbus/RTU | 15        |         |
| M551A4. | CVM-D440-MC         | .../250 mA    | 1...4(III)   1...12(II) | 4                 | Wi-Fi   Ethernet   RS-485 | Modbus/TCP   Modbus/RTU | 15        |         |
| M55134. | CVM-D441-SCV        | .../333 mV    | 1...4(III)   1...12(II) | 4                 | Wi-Fi   Ethernet   RS-485 | Modbus/TCP   Modbus/RTU | 15        |         |
| Kits    |                     |               |                         |                   |                           |                         |           |         |
| M55136. | kit CVM-D421+2xSCV1 | .../333 mV    | 1...2(III)   1...6(II)  | 2                 | Wi-Fi   Ethernet   RS-486 | Modbus/TCP   Modbus/RTU | 15        | 3 x SCV |
| M55138. | kit CVM-D441+4xSCV1 | .../333 mV    | 1...4(III)   1...12(II) | 4                 | Wi-Fi   Ethernet   RS-487 | Modbus/TCP   Modbus/RTU | 15        | 3 x SVC |



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The -MC models require MC1/MC3 type transformers and the -SCV require SCV1 type transformers

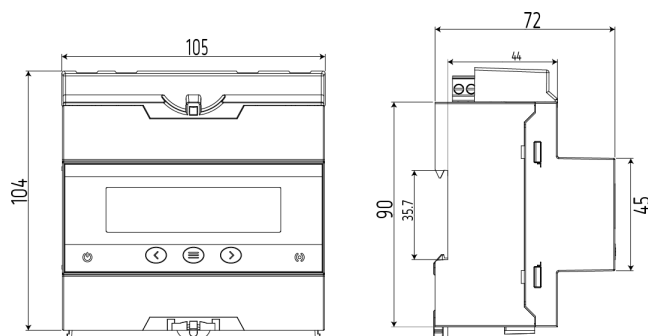


## CVM-D440-MC

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### Dimensions



### Connections

