

# Intelligent Building Solutions

## Installation Manual



## CPM 2010 DM ENERGY METER UNIT

- for single-phase systems
- DIN-rail mounting

**CIB-tech**

# Introduction

The CPM 2010 DM is an energy meter and power monitor unit for single-phase electrical networks, part of the CIB-tech automation system.

## Additional Equipment Required

### 1. Functional CIB-tech system

A minimal number of essential CIB-tech components to make a functional CIB-tech system<sup>1</sup>

### 2. Circuit breaker

Miniature circuit breaker (MCB) or Din-Rail mountable fuse must be used for over current protection

# Technical Specifications

## Electrical characteristics

### ● Power Supply

The CPM 2010 DM has a double power supply allowing the equipment to work both from mains power and from the CIB-tech system's power supply, powered via the CIB-tech connectors.

#### ○ Powered from CIB-tech system:

- Operating voltage range: 20 to 28V DC (nominal 24V DC)
- Supply current
  - Standby current : 25mA
  - Maximum current: 35mA

#### ○ Powered from mains:

- Operating voltage: 230V AC
- Operating current : 20mA

### ● Power measurement rating

- Rated voltage: 230V AC
- Nominal current: 5A
- Maximum current: 20A
- Line frequency: 50Hz

## Mechanical characteristics

The CPM 2010 DM has a standard 4-module wide enclosure for M36 type DIN-Rail

- Dimensions: 96mm W x 69mm L x 60mm D
- Weight: 250g

## Environmental characteristics

- Operating temperature: -10°C to 85°C
- Storage temperature: -25°C to 100°C

<sup>1</sup> See "CIB-tech installation manual" for details.

## Key Features

- Active, reactive and apparent power, line voltage and current monitoring
- Active, reactive and apparent energy measurement
- Energy measurement is not interrupted by a CIB-tech system power failure
- Energy counter values are readable from the device via the CIB-tech system even in absence of mains power
- Internal bi-color LED, indicating mains power state (green: mains power is present / red: mains power failure)
- Internal pulse LED, indicating active energy consumption (1000 imp/kWh)

## Installation

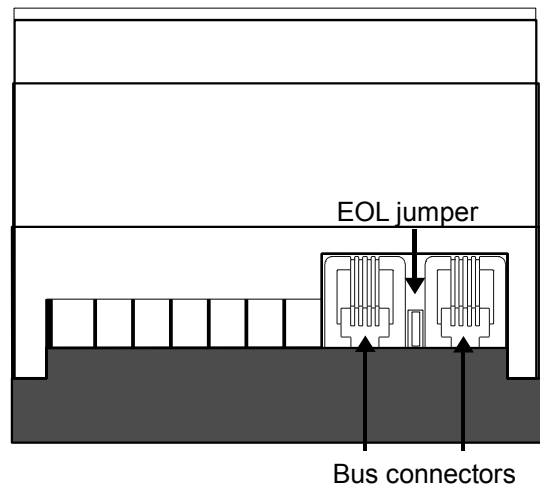
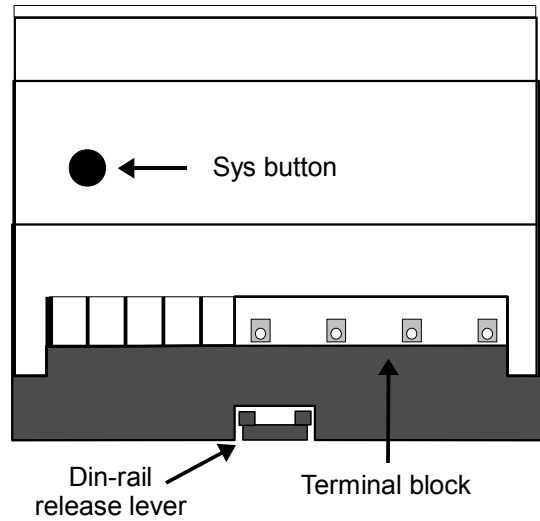
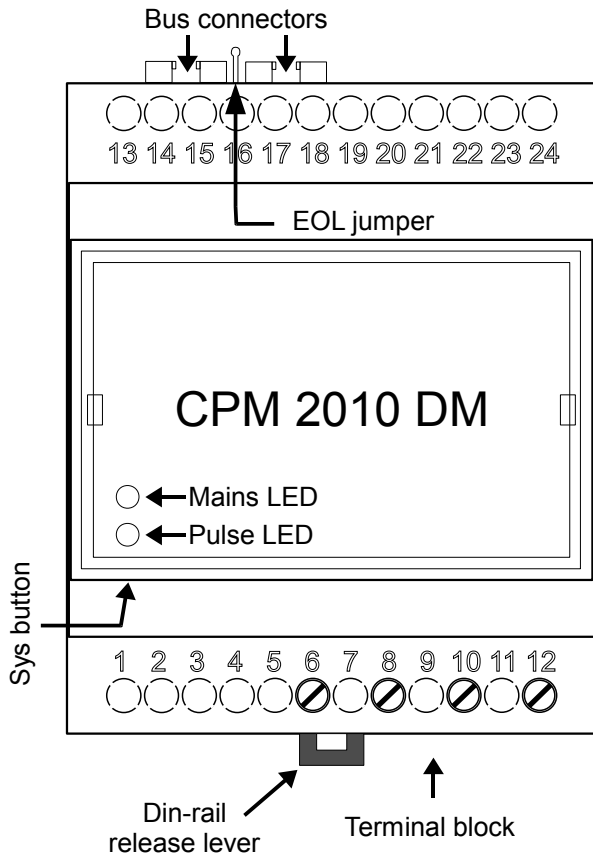
The CPM 2010 DM is meant to be installed on a standard M36 type DIN-Rail.

### Part description

- **Bus connectors:**
  - 4P4C modular jack connectors for CIB-tech connection<sup>1</sup>
- **Sys button:**
  - pushbutton for CIB-tech system configuration
- **EOL jumper:**
  - CIB-tech system's End Of Line jumper<sup>1</sup>
- **Mains LED:** indicator LED for mains state
  - green : mains power is present
  - red : mains power failure)
  - Pulse LED: active energy consumption indicator (1000 imp/kWh)
- **DIN-rail release lever:**
  - lever for removing the device from the M36 DIN-Rail
- **Terminal block:** terminals for connecting devices to mains:
  - 6. Null (N) – Input
  - 8. Null (N) – Output
  - 10. Phase (L) – Input
  - 12. Phase (L) – Output

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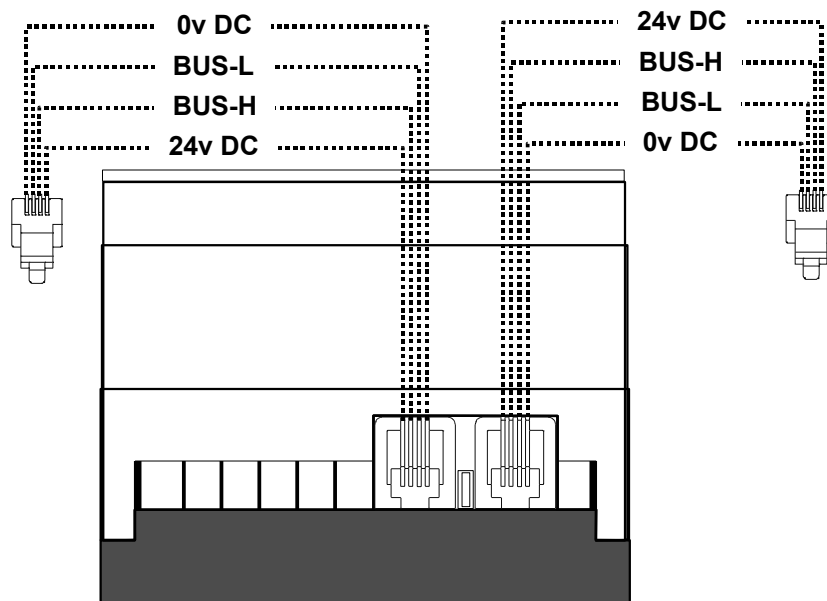
<sup>1</sup> See “CIB-tech installation manual” for details.



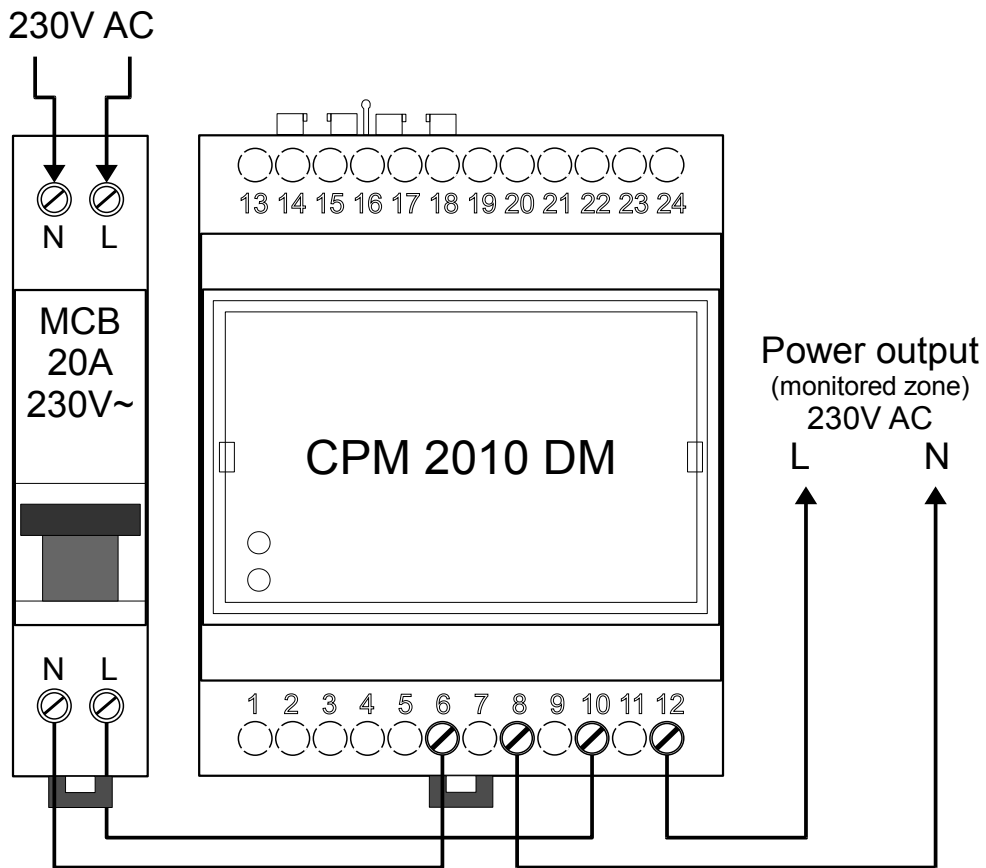
## Wiring diagrams

### Connection to CIB-tech system:

Use the CPM 2010 DM device's two 4P4C modular jack connectors to connect it to the CIB-tech systems (chain like) bus. Do not forget to remove the EOL jumper if the device is not the last element of the chain



## Connecting to mains



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The CPM 2010 DM device should only be used for informational purpose. The manufacturer will not take any responsibility for the accuracy of the device.