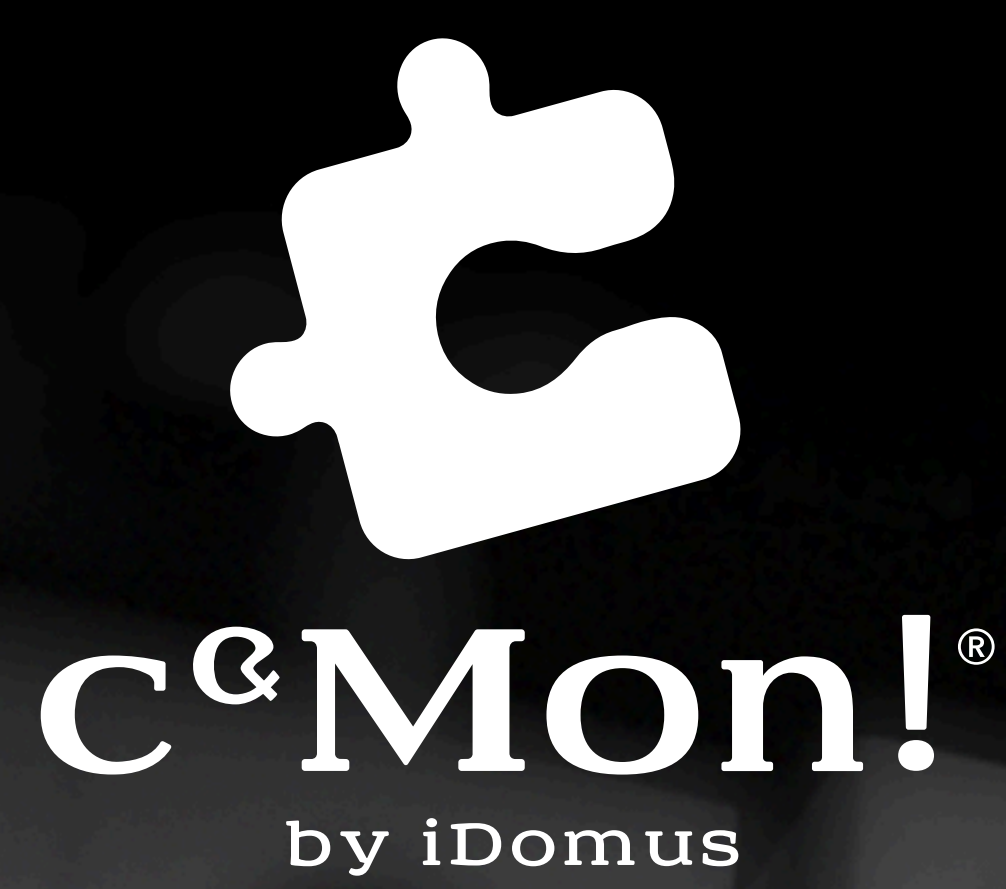




CMN-URM-2250

Compact universal RS-485 /
Modbus RTU Relay Module



CMN-URM-2250 is a compact universal industrial relay module with RS-485 interface and support for the Modbus RTU protocol. The module is designed for automation systems, BMS and control of energy infrastructure components in environments with limited space within power distribution cabinets and control panels.



optimized for cabinets
with limited space



220V power line
control



reliable operation in
energetic and industrial
systems



high-current load control
up to 50 A



support for Modbus
industrial protocol



easy integration with
BMS and SCADA

FEATURES

2x2 Module is equipped with 2 high-power 220 V AC inputs for monitoring the state of electrical lines, as well as 2 high-power relays (up 50 A) for reliable switching of high-current loads.

The module provides stable operation, remote control, and diagnostics via Modbus RTU. Its compact design allows easy integration, while its functional characteristics ensure reliable performance in industrial and energy systems.

AREAS OF APPLICATION

- ✓ Energetic infrastructure and distribution nodes
- ✓ Street and architectural lighting
- ✓ Energy control and automation panels
- ✓ BMS and EMS
- ✓ Commercial and industrial objects
- ✓ Municipal and infrastructure projects
- ✓ SCADA and dispatch systems



FUNCTIONAL CHARACTERISTICS

Number of power inputs	2
Input type	220 V AC (monitoring voltage presence)
Number of relays	2
Relay type	electromechanical power relays
Rated contact current	up to 50 A
Contact type	NO / NC

DIMENSIONS

Width	~70 mm
Height	~90 mm
Depth	~67 mm
Weight	150 g



KEY FEATURES

- Communication Interface: RS-485
- Protocol: Modbus RTU (slave)
- 2 power inputs 220 V AC for line monitoring
- 2 electromechanical power relays up to 50 A
- Control and monitoring via Modbus
- High switching ability
- Power, connection, input and relay indicators
- Compact design
- 35mm DIN rail mounting

POWER INPUTS

- Rated voltage:
110-250 V AC, 50/60 Hz
- Function: monitoring of line presence and status
- Galvanic isolation: built-in

RELAY OUTPUTS

- Rated load voltage:
up to 400 V AC / 30 V DC
- Rated current: up to 50 A (AC-1)
- Inrush currents: up to 600 A (short term)
- Electrical endurance:
≥ 50 000 cycles
- Mechanical endurance:
≥ 5 000 000 cycles

INDICATION

- Power LED
- RS-485 activity LED
- Input status indicator
- Relay status indicator

PACKAGE CONTENTS

- CMN-URM-2250 relay module
- Datasheet / user manual
- Packaging

POWER SUPPLY

- Nominal supply voltage:
12–24 V DC
- Power consumption: ≤ 4 W

COMMUNICATION INTERFACE

- Interface: RS-485
- Protocol: Modbus RTU
- Transmission speed:
9 600 - 115 200 bps
- Device address: 1-250
- Line protection: built-in (TVS / ESD)
- Network topology: daisy chain

MODBUS FUNCTIONS

- Power input status reading
- Relay output status reading
- Relay control (ON/OFF)
- Communication diagnostics and control

Supported Modbus Functions

- 01 — Read Coils
- 02 — Read Discrete Inputs
- 05 — Write Single Coil
- 15 — Write Multiple Coils

FORM FACTOR

- Enclosure: PC/ABS self-extinguishing
- Mounting: 35 mm DIN rail
- Terminals: screw-type (power and command)
- Protection rating: IP20

OPERATIONAL CONDITIONS

- Operating temperature: –20...+60 °C
- Storage temperature: –40...+85 °C
- Humidity:
up to 92%, without condensation

Model designation CMN-URM-2250

URM	Universal Relay Module
2×2	2 power inputs / 2 relays
50	rated relay current up to 50 A



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CONTACTS

iDomus Company S.R.L.
<https://idomus.pro>
info@idomus.pro