

# WUM-CDC-LR

Compact Wireless Relay Module  
LoRa Mesh / LoRaWAN



WUM-CDC-LR is a compact, industrial-grade wireless relay module supporting LoRa Mesh and LoRaWAN technologies, designed for remote control and monitoring in BMS, smart home, and automated management systems for commercial and technological infrastructure.



load and consumption  
monitoring in a single  
device



long communication  
range and interference  
immunity



suitable for remote and  
distributed sites



wireless control with  
no need for cable  
infrastructure



easy integration into  
BMS and IIoT platforms



energy efficiency and  
compact design

# FEATURES

The module features a 16 A power relay for switching electrical loads, as well as a built-in current meter for real-time electricity consumption monitoring (up to 16A). Based on LoRa communication module, the device provides reliable long-range wireless data transmission, supports remote control and diagnostics, and enables easy integration into distributed automation networks.

The device combines energy efficiency, compact design, and industrial-grade reliability, making it an optimal solution for decentralized and hard-to-reach facilities.

## AREAS OF APPLICATION

- ✓ BMS and Smart Home systems
- ✓ Lighting and electrical appliance control
- ✓ Commercial and office buildings
- ✓ Industrial and technological facilities
- ✓ Decentralized and remote sites
- ✓ Infrastructure and municipal projects
- ✓ IIoT and wireless monitoring networks



## FUNCTIONAL CHARACTERISTICS

Number of Relays	1
Relay Type	electromechanical
Relay Rated Current	up to 16 A
Current Measurement	built-in, up to 16 A
Control Type	wireless (LoRa)

## DIMENSIONS

Width	~35 mm
Height	~90 mm
Depth	~65 mm
Weight	80 g

KEY FEATURES

- Wireless LoRa Mesh / LoRaWAN connectivity
- Communication range up to several kilometers (depending on conditions)
- 1 power relay up to 16 A
- Built-in current measurement up to 16 A
- Real-time consumption monitoring
- Remote control and monitoring
- Low power consumption
- Compact design
- Device status indication
- Industrial-grade reliability

POWER SUPPLY

- Rated Supply Voltage: 110–240 V AC
- Power Consumption: ≤ 2 W

RELAY OUTPUT

- Load Rated Voltage:  
up to 250 V AC / 30 V DC
- Rated Current: up to 16 A (AC-1)
- Electrical Endurance:  
≥ 100 000 cycles
- Mechanical Endurance:  
≥ 10 000 000 cycles

CURRENT MEASUREMENT

- Measurement Range: 0–16 A
- Measurement Type: Built-in current sensor
- Measurement accuracy: ±1% (typ.)
- Data Update Rate: programmable

PACKAGE CONTENTS

- WUM-CDC-LR Wireless Relay Module
- LoRa Antenna (for outdoor version)
- Datasheet / User Manual
- Packaging

WIRELESS INTERFACE

- Technology: LoRa Mesh / LoRaWAN
- Operating Frequency:  
868 MHz (EU) / 915 MHz (US)
- LoRaWAN Device Class: A / C (configurable)
- Encryption: AES-128
- Antenna Type: External

FUNCTIONAL CAPABILITIES

- Remote On/Off switching
- Relay status monitoring
- Current measurement and consumption data transmission
- Device diagnostics
- Support for scenarios and control logic at the system level

INDICATION

- Power LED
- LoRa Connection Status LED
- Relay Status LED

FORM FACTOR

- Enclosure: ABS
- Mounting: DIN rail / Wall mount (depending on version)
- Terminals: Screw-type
- Protection Rating: IP20

OPERATIONAL CONDITIONS

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

Descifrare model WUM-CDC-LR

WUM	Wireless Universal Multimesh
CDC	Controller & Data Concentrator
LR	LoRa + Relay



# WUM

## CONTACTS

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