



## SMART HOME SYSTEM

we make things smarter  
than it's ever been possible



# CATALOGUE

[www.larnitech.com](http://www.larnitech.com)

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## ABOUT US

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Larnitech is a developer and manufacturer of ‘Smart Home’ systems for home and office automation. The head office of the company is located in Frondenberg (Germany).

Our new product line combines easy mounting and installation with a wide range of the system functional features. The use of modern elements allows us to create compact and economical devices.

Our team of designers and software developers has created user-friendly software for managing the system, which allows our clients to manage the most sophisticated tasks.

The modern world is experiencing an unprecedented boost in the sphere of IT. We, at Larnitech, are fully aware of this trend and are doing everything in our power to provide our own share of innovations in the field of smart house technology. We strive to become a leader in our market niche. Through our high-tech environment-friendly products, we contribute to saving the world’s natural resources and fulfil our mission of developing modern housing that combines progressive ideas, comfort and safety.

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## OUR ADVANTAGES

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- Really quick and easy equipment setup with true Plug&Play technology
- The basic setup of the system is done from a tablet and does not require special coding skills
- Reliable support service, which responds to any queries fast
- Great conditions for cooperation
- Training provided
- Numerous ready-made scenarios (that enable the creation of a home that's truly smart)
- Voice control (Alexa, Siri and Google Home integrated)
- Free software for iOS, Android, Windows, Mac, Linux
- Remote control from any point of the world (Using cloud connection)
- German quality
- Integration with Philips Hue, IKEA, Sonos, Satel, Dynalite, IFTTT, IntesisBox, CoolMaster and many others
- The multiroom system is fully integrated into the Smart Home system (it is used in scenarios, voice announcements, 'following' sound and others)
- Distributed logic with flexible architecture (there is no 'central element', increased reliability, varying scope of the project, connection of up to 1000 devices)
- A wide range of equipment on offer allows to control all systems of a building
- Intuitive interface for creating scripts using visual language Blockly, programming skills are not required

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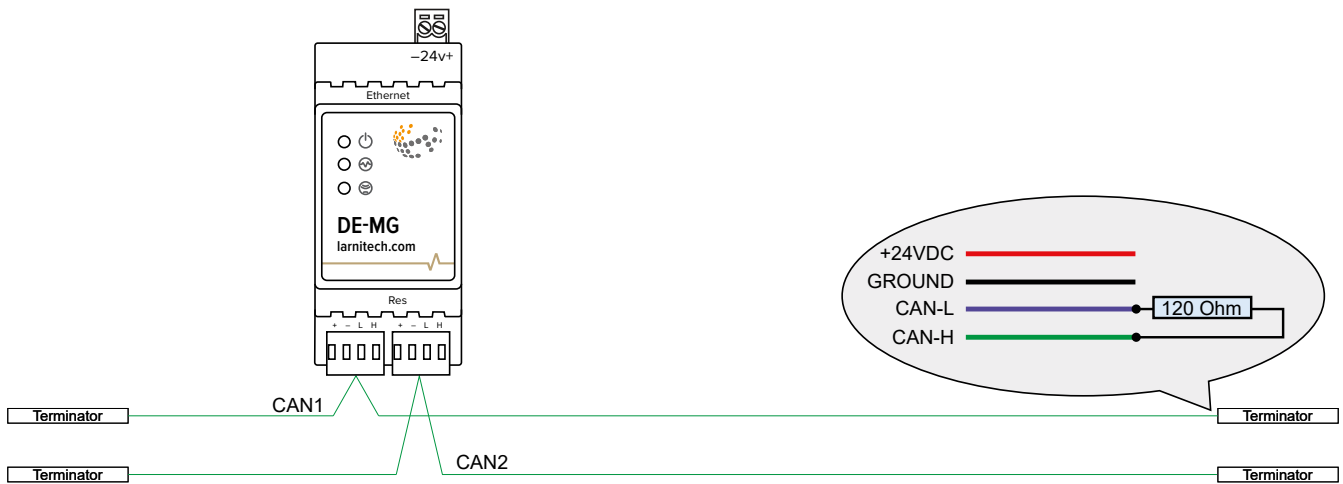


# LARNITECH SMART HOME SYSTEM ARCHITECTURE

The Main Gateway is the core device of the system. Its main task is to configure the system, and provide the logic for its operation. It also keeps track of the sensors data and provides authorized access to the system. The Main Gateway is connected to the local network. It has 2 CAN bus ports.

The CAN bus is used to connect the sensors and actuators to the system. Terminators, 120 Ohm resistors, need to be installed at the end of the CAN bus.

As can be seen from the table below, a four-wire bus is used (two twisted pairs) with a maximum length of eight hundred meters. A maximum of 50 devices can be connected to each CAN bus.



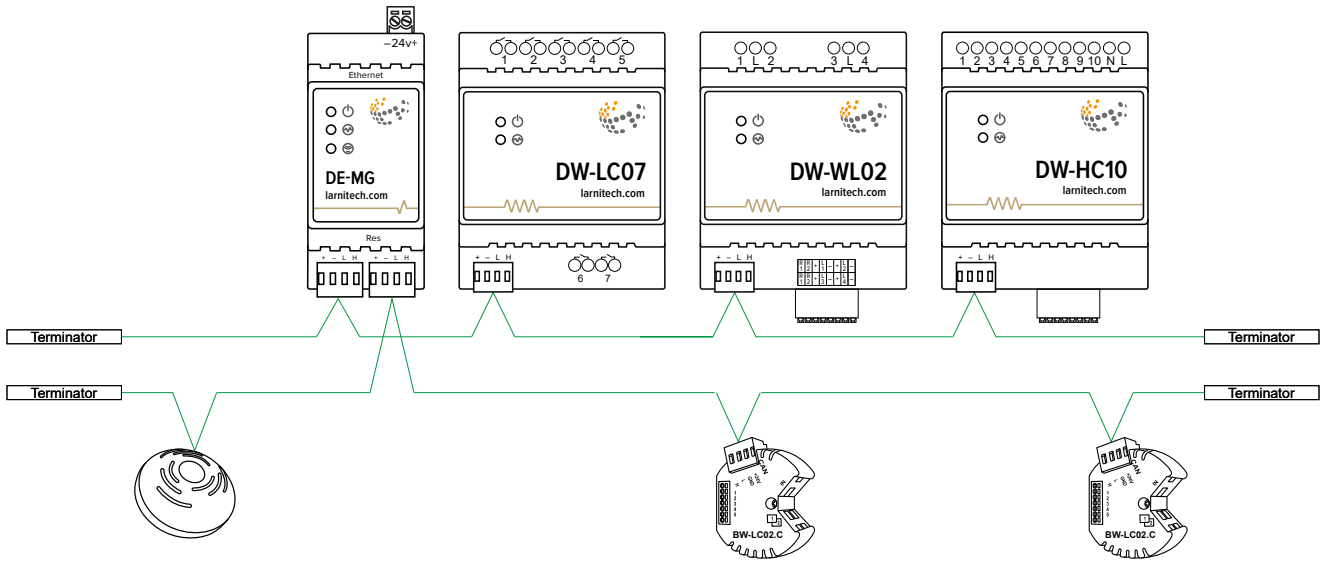
Topology	BUS
CAN BUS wire type	FTP/UTP CAT5e
Number of wires used	4-wire bus (two twisted pairs)
Max CAN BUS length	800 m* (twisted pair CAT5e)
Max devices per CAN BUS	50
Terminator type	Resistance 120 Ohm

\* installing additional power supply units is required for long lines; the maximum length of the line may be reduced by various interference factors

The following diagram shows how modules can be connected to the system. In the drawing below a 7-channel actuator, a leak control module and a heating control module have been connected to the first CAN bus.

The second CAN bus has a four-in-one multi-sensor and a two-channel pattress box space actuators. In such a manner up to 100 devices can be connected to the main gateway.

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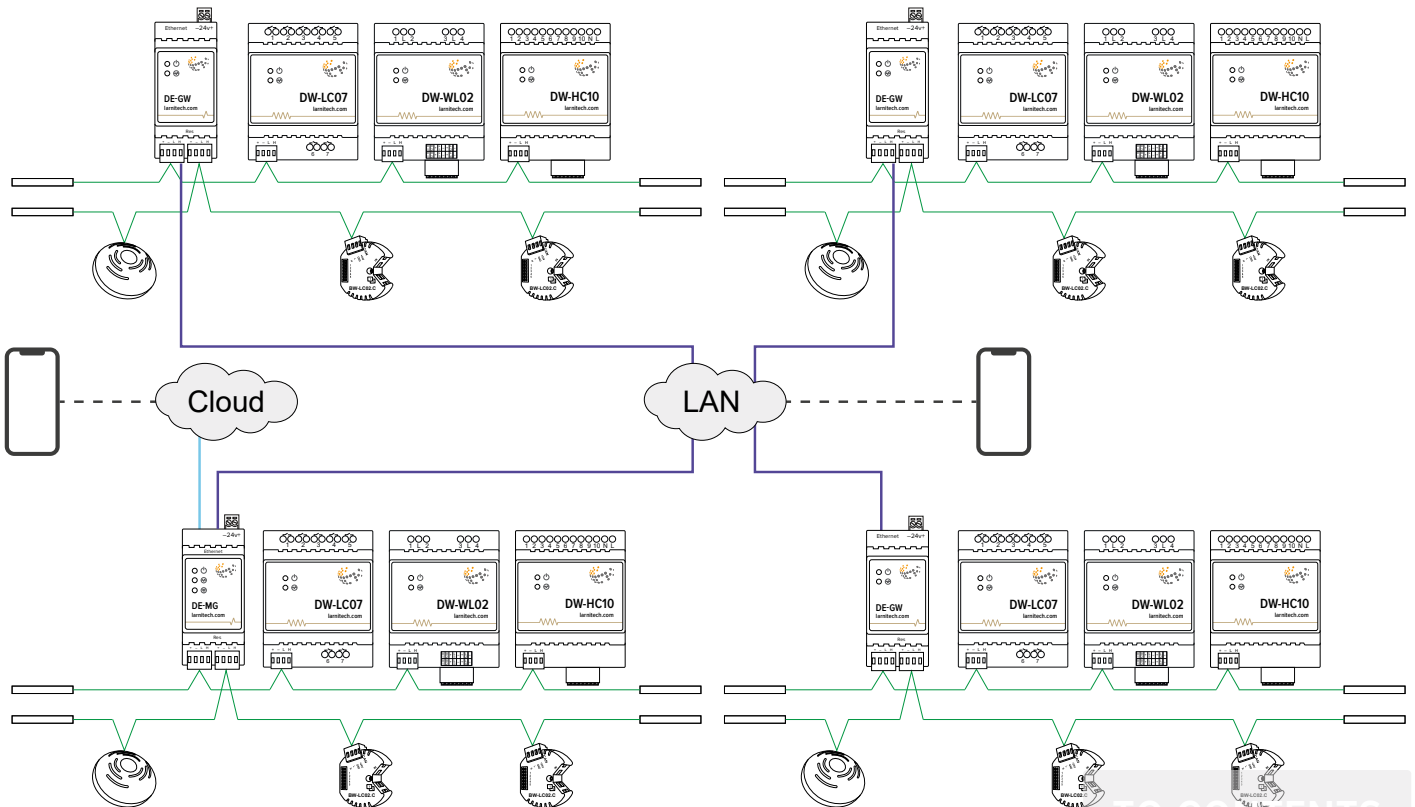
In its turn, the main gateway is connected to the Local Area Network.

If the building where the system is set up has several floors or 100 devices are not sufficient for performing all of your tasks, additional extension modules are connected to the system. Each of them gives the user the ability to connect 100 more devices.

As many extension modules as needed may be added, therefore the system can be expanded almost indefinitely. This way via the Local Area Network numerous CAN networks can be united into one network with the total number of up to 1000 controlled modules.

Tablets or smartphones get connected to the local area network via Wi-Fi. After installing the Larnitech application on your tablet or phone, you can control the devices in the system.

The main gateway is connected to the cloud, which allows to get authorized remote access to the Smart Home.



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# METAFORSA – DE-MG COMPARISON

Larnitech GmbH offers smart home systems of two varieties: the simplified basic system called MetaforSA and the full-function Larnitech Smart Home, based on the DE-MG (main gateway) module. The table below offers the comparison between the 4 options.

Feature	DE-MG	MetaforSA	MetaforSA2	MetaforSA2 Cloud
<b>Quantity of supported extra modules</b> This is the quantity of extra modules that can be connected to the Smart Home system	999	4 <sup>1</sup>	4 <sup>1</sup>	99
<b>Lighting scenarios</b> There is a possibility of creating various lighting scenarios	+	+	+	+
<b>Lighting automation</b> Lighting automation is based on motion detectors, level of lighting, door position, time and date	+	+	+	+
<b>Quantity of additional scenarios</b> This is the number of additional scenarios that can be used in the system. Lighting scenarios and lighting automation are considered basic functions and are not included in this list	150+ <sup>2</sup>	70+ <sup>12</sup>	70+ <sup>12</sup>	150+ <sup>2</sup>
<b>Quantity of IP cameras that can be integrated into the system</b> This function allows to view the image captured by IP cameras and to control them using the Larnitech Smart Home application	99	1	1	99
<b>Possibility of creating custom scenarios</b> Possibility of creating custom scenarios that do not exist in the database	+	— <sup>1</sup>	— <sup>1</sup>	+
<b>Voice control (Siri, Alexa, Google Home, Alisa)</b>	+	+	+	+
<b>Support of multiroom system</b> Ability to integrate the media points into the Smart Home system in order to play the voice messages and control media content	local/remote	local only	local only	local/remote
<b>Intercom</b> Possibility to connect the FE-IC intercom to Larnitech Smart Home system	local/remote	local/remote	local/remote	local/remote
<b>Support of third party media devices</b> Possibility to control the third party media devices that support the DLNA protocol	local/remote	local only	local only	local/remote
<b>Remote control</b> Remote connection that allows to control all Smart Home systems through direct or cloud connection	+	+	+	+

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Feature	DE-MG	Metaforsa	Metaforsa2	Metaforsa2 Cloud
<b>API</b> Application programming interface that allows to exchange data and commands with third party applications	+	+	+	+
<b>Plug &amp; Play</b> Technology that automatically detects and preconfigures new devices connected to the system	+	+	+	+
<b>Video cloud</b> Possibility to view the image from IP cameras with the help of cloud connection	+	limited	limited	limited
<b>Number of relay outputs</b> Quantity of output channels that are built into the module in order to connect the load	—	10	10	10
<b>Number of discrete inputs</b> Quantity of input channels that are built into the module in order to connect the sensors and buttons	—	16	24	24
<b>Number of dimming channels</b> Quantity of dimming channels that are built into the module in order to connect the dimming lamps	—	—	4	4
<b>Number of PWM outputs</b> PWM outputs combined with inputs	0	0	0	8
<b>Number of CAN ports</b> Quantity of CAN ports in order to connect additional modules	2	1	1	1
<b>Built-in IR receiver</b> Infrared receiver used to set up an universal remote	+	—	—	+

<sup>1</sup> Can be extended with the license

<sup>2</sup> Continually expands

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## SAFETY REQUIREMENTS

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**CAUTION!** All work related to the installation, connection, setting up, service and support must be carried out by qualified personnel with sufficient skills and experience in working with electrical equipment.

To avoid the risk of fire, electric shock, damage to the system and / or personal injury, the system installation and assembly must be performed in accordance with the instructions listed below:

- all connection work must be carried out without power;
- use appropriate tools and personal protection against electric shock;
- do not use damaged cables, wires and connectors;
- avoid folding cables and wires;
- do not pinch or kink the cables and wires by applying excessive force. Otherwise, inner conductors of the cables and wires may be stripped or broken;
- do not use the power socket with poor contacts to connect;
- do not exceed the load limit parameters specified in this manual;
- the supply conductors wire section is subject to the specifications for current density limit, insulation type and wire material. Light section can result in cable overheating and fire.

When working with the system after voltage supply NEVER:

- connect/disconnect the connectors;
- open modules and sensors.

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# METAFORSA SERIES

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# Metafora2 MF-14



## FEATURES

- 10 universal outputs support:
  - Lights
  - NC/NO heating valves
  - Blinds
  - 1 or 2-pole gates
  - 1 or 2-pole valves
  - NC/NO locks
  - Fan coil units
- 4 dimming outputs
- 24 Discreet inputs that support:
  - Buttons
  - Switches
  - Reed switches
  - Leak sensors
  - Motion detectors
- 4 digital inputs for up to 8 temperature sensors
- Extension port
- Relays with AgSnO2 contacts rated for 80A 20ms inrush current
- Cloud connection and control of all house systems
- Voice control (Siri, Alexa, Google Home)

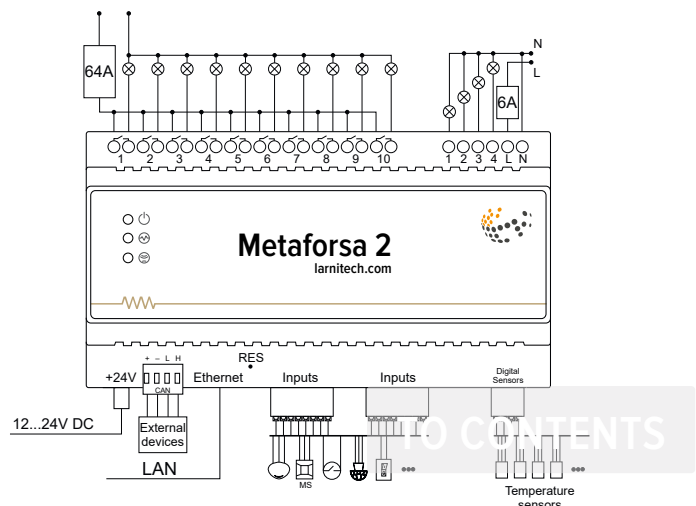
It is a completely ready-to-install kit of the Smart Home system. The kit includes the main unit, 3 motion sensors, 2 FW-WL leakage sensors, 4 FW-TS temperature sensors, 4 reed switches, and a PSU.

## Module parameters

Parameter name	Value
Switching channels quantity	10
Dimming channels quantity	4
Discrete input channels qty	24
Digital input channels qty	4
Input voltage	0-250 V
Current type	AC/DC
Max load per channel	16A
Max load per dimming channel	0.5A (110W at 220V)
Power supply	11.5 ... 27.5 V DC
Max current(24V)	0.5 A
BUS type	CAN
Max CAN bus length	800 m* (twisted pair CAT5e)
Max CAN devices	4 (can be extended with the license)
Equipment installation type	DIN-rail (EN 60715)
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	9U, 156x90x58 mm
Weight	400 g

\* installing additional power supply units is required for long lines; the maximum length of the line may be reduced by various interference factors

## Connection example

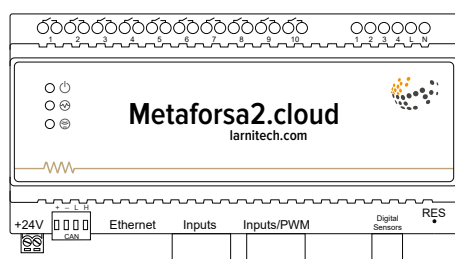


# Metaforsa2 Cloud MFC-14



## FEATURES

- 10 universal outputs support:
  - Lights
  - NC/NO heating valves
  - Blinds
  - 1 or 2-pole gates
  - 1 or 2-pole valves
  - NC/NO locks
  - Fan coil units
- 4 dimming outputs
- 8 PWM outputs
- 24 Discreet inputs that support:
  - Buttons
  - Switches
  - Red switches
  - Leak sensors
  - Motion detectors
- 4 digital inputs for up to 8 temperature sensors
- Extension port
- Relays with AgSnO2 contacts rated for 80A 20ms inrush current
- Cloud connection and control of all house systems
- Voice control (Siri, Alexa, Google Home)



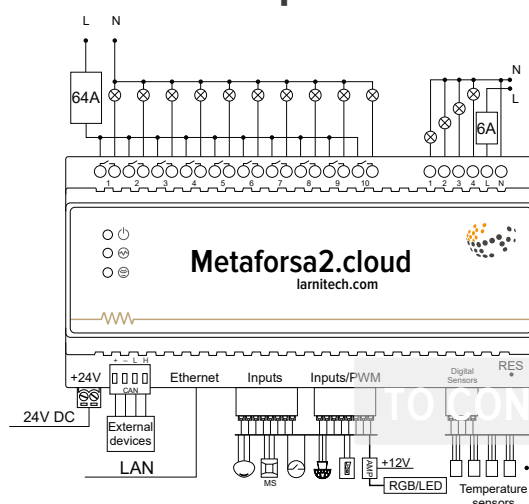
It is a completely cloud-based ready-to-install Smart Home system kit. It includes the main unit, 3 CW-MSD motion sensors, 2 FW-WL leakage sensors, 4 FW-TS temperature sensors, 4 reed switches, and a PSU.

## Module parameters

Parameter name	Value
Switching channels quantity	10
Dimming channels quantity	4
PWM outputs qty	8 (combined with inputs)
Discrete input channels qty	24
Digital input channels qty	4
Input voltage	0-250 V
Current type	AC/DC
Max load per channel	16A
Max load per dimming channel	0.5A (110W at 220V)
Max load per PWM outputs	50 mA
Power supply	23 .. 27.5 V DC
Max current(24V)	0.5 A
BUS type	CAN
Max CAN bus length	800 m* (twisted pair CAT5e)
Max CAN devices	99
Equipment installation type	DIN-rail (EN 60715)
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	9U, 162x90x58 mm
Weight	300 g

\* installing additional power supply units is required for long lines; the maximum length of the line may be reduced by various interference factors

## Connection example



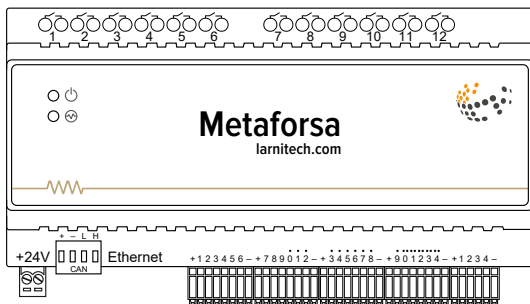
# Metafora MFC-12



## FEATURES

- 12 universal outputs support:
  - Lights
  - NC/NO heating valves
  - Blinds
  - 1 or 2-pole gates
  - 1 or 2-pole valves
  - NC/NO locks
  - Fan coil units
- 24 Discreet inputs that support:
  - Buttons
  - Switches
  - Reed switches
  - Leak sensors
  - Motion detectors
- 4 digital inputs for up to 8 temperature sensors
- Extension port
- Relays with AgSnO2 contacts rated for 80A 20ms inrush current
- Cloud connection and control of all house systems
- Voice control (Siri, Alexa, Google Home)

Metafora series



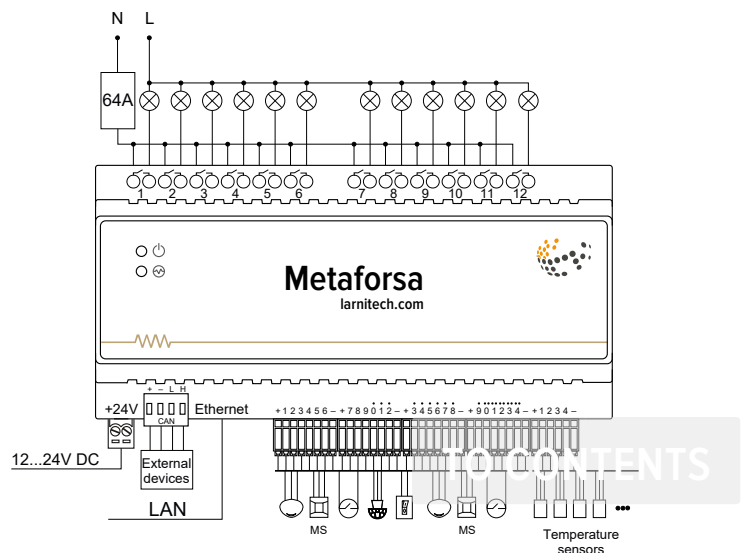
METAFORSA SMART HOUSE is a ready-made solution for automation of residential and commercial premises, hotel complexes which includes the most highly desired features of Smart House. The device has 12 control channels, 24 incoming sensor channels, and a digital sensors' connection port.

## Module parameters

Parameter name	Value
Output channels qty	12
Discrete input channels qty	24
Digital input channels qty	4 (up to 8 FW-TS sensors)
Input voltage	0-250 V
Current type	AC/DC
Max load per channel	16A
Max load per group	160A
Power supply	11.5 ... 27.5 V DC
Max current(12V)	1 A
BUS type	CAN
Max CAN bus length	800 m* (twisted pair CAT5e)
Max CAN devices	99
Equipment installation type	DIN-rail (EN 60715)
Case material	ABS
Protection	IP40
Temperature range	-20 ... +60 °C
Size	9U, 156x110x58 mm
Weight	300 g

\* installing additional power supply units is required for long lines; the maximum length of the line may be reduced by various interference factors

## Connection example



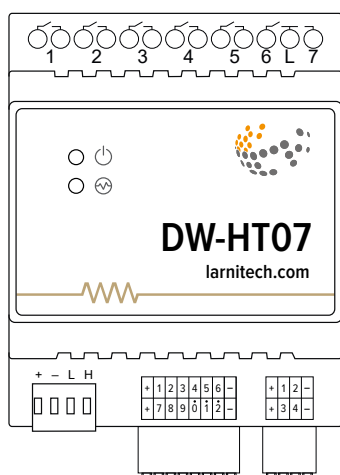
# DW-HT07

## 7-CHANNEL EXTENSION MODULE



### FEATURES

- 7 universal outputs support:
  - Lights
  - NC/NO heating valves
  - Blinds
  - 1 or 2-pole gates
  - 1 or 2-pole valves
  - NC/NO locks
  - Fan coil units
- 12 Discreet inputs that support:
  - Buttons
  - Switches
  - Reed switches
  - Leak sensors
  - Motion detectors
- 4 digital inputs for up to 8 temperature sensors

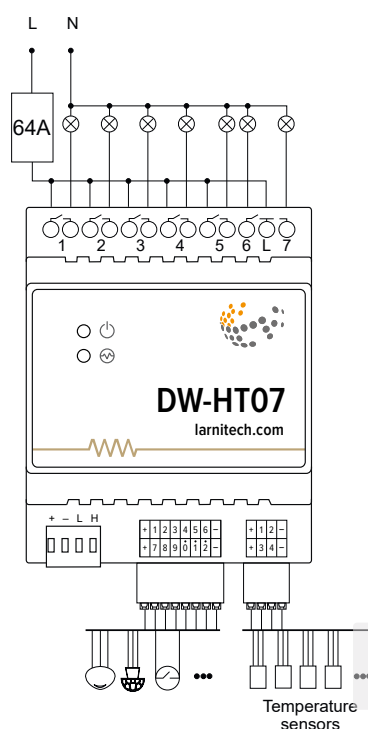


This module has 7 outputs for connecting the load and 12 inputs for connecting various sensors/buttons.

### Module parameters

Parameter name	Value
Output channels qty	7
Discrete input channels qty	12
Digital input channels qty	4 (up to 8 FW-TS sensors)
Input voltage	0-250 V
Current type	AC/DC
Max load per channel	16A
Power supply	11.5 ... 27.5 V DC from CAN
Max current(24V)	140 mA
BUS type	CAN
Equipment installation type	DIN-rail (EN 60715)
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	4U, 69x115x58 mm
Weight	255 g

### Connection example



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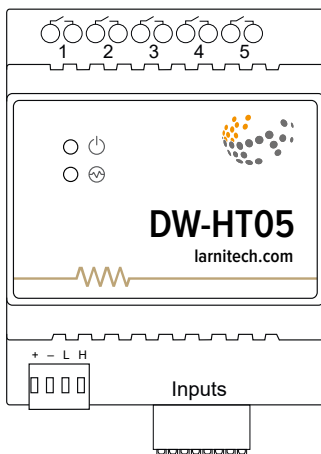
# DW-HT05

## 5-CHANNEL MODULE



### FEATURES

- 5 universal outputs support:
  - Lights
  - NC/NO heating valves
  - Blinds
  - 1 or 2-pole gates
  - 1 or 2-pole valves
  - NC/NO locks
  - Fan coil units
- 12 Discreet inputs that support:
  - Buttons
  - Switches
  - Reed switches
  - Leak sensors
  - Motion detectors

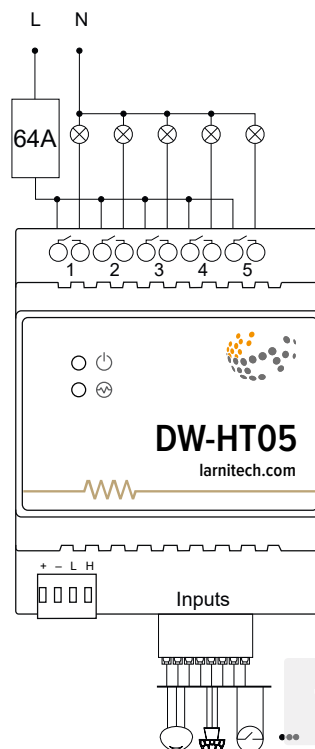


Has 5 outputs for connecting load and 12 inputs for connecting various sensors/buttons.

### Module parameters

Parameter name	Value
Output channels qty	5
Discrete input channels qty	12
Input voltage	0-250 V
Current type	AC/DC
Max load per channel	16A
Power supply	11.5 ... 27.5 V DC from CAN
Max current(24V)	110 mA
BUS type	CAN
Equipment installation type	DIN-rail (EN 60715)
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	4U, 69x110x58 mm
Weight	110 g

### Connection example



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# DIN-RAIL EQUIPMENT

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# DE-MG.plus MAIN GATEWAY

It is used for accumulation and storage of system data. The device determines the logical scheme of the system and allows authorized access to the system via the Internet. It also converts Ethernet into CAN bus, EIB, Bluetooth and vice versa. DE-MG.plus has a built-in IR receiver.



## FEATURES

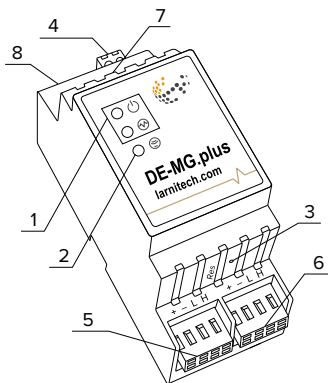
- One DE-MG.plus can manage up to 1000 devices
- Cloud connection and control of all house systems
- 2xCAN, EIB, Bluetooth interfaces
- 4-core processor
- Voice control (Siri, Alexa, Google Home)
- Plugins engine allows expanding the system possibilities (e.g. integrating with Satel, Philips Hue, Somfy, Luxaflex, IKEA)
- Safety against unauthorized intrusion ensured with RSA/AES256 encryption
- Push notifications from the system on your phone (also possible to receive through Telegram and Viber messengers)
- History (meter data for 1 year is stored)
- Plug and play (possibility for fast and user-friendly extension of the system)
- Large constantly updated database of scripts to meet all your needs
- Automatic daily backups via cloud with the possibility to restore the initial configuration
- Open API
- Interactive and user-friendly LT SETUP Web interface available for advanced configuration

## Module parameters

Parameter name	Value
Input/output interfaces	Ethernet, 2xCAN, EIB, Bluetooth
Data speed	10/100Mb/s
Max CAN devices	100(50 per CAN)
CAN bus topology	BUS
Number of CAN ports	2
Power supply	11.5 ... 27.5 V DC 24V, 2.5A Recommended
Max own current (24V)	140mA
Max CAN bus length	800 m* (twisted pair CAT5e)
Max CAN bus current	700mA
IR Receiver angle	30°
Case material	ABS
Protection	IP40
Equipment installation type	DIN-rail (EN 60715)
Temperature range	-10 ... +50°C
Size	2U, 36x102x58 mm
Weight	145 g

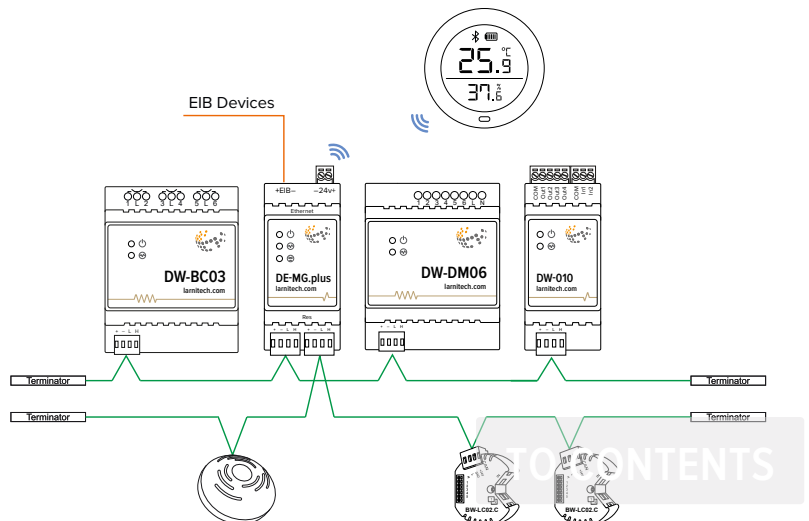
\* installing additional power supply units is required for long lines; the maximum length of the line may be reduced by various interference factors

DIN rail equipment



- |                    |             |
|--------------------|-------------|
| 1. Indicators      | 5. CAN1     |
| 2. IR Receiver     | 6. CAN2     |
| 3. Recovery button | 7. Ethernet |
| 4. Power supply    | 8. EIB      |

## Connection example



# DE-MG MAIN GATEWAY

It is used for accumulation and storage of system data. The device determines the logical scheme of the system and allows authorized access to the system via the Internet. It also converts Ethernet into CAN bus and vice versa. DE-MG has a built-in IR receiver.



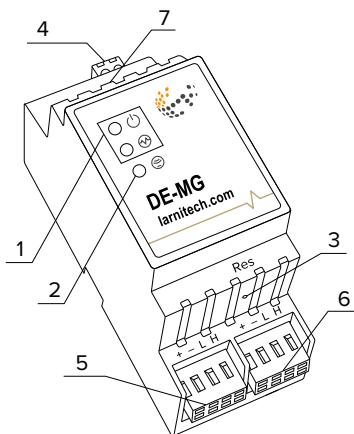
## FEATURES

- One DE-MG can manage up to 1000 devices
- Cloud connection and control of all house systems
- Voice control (Siri, Alexa, Google Home)
- Plugins engine allows expanding the system possibilities (e.g. integrating with Satel, Philips Hue, Somfy, Luxaflex, IKEA)
- Safety against unauthorized intrusion ensured with RSA/AES256 encryption
- Push notifications from the system on your phone (also possible to receive through Telegram and Viber messengers)
- History (meter data for 1 year is stored)
- Plug and play (possibility for fast and user-friendly extension of the system)
- Large constantly updated database of scripts to meet all your needs
- Automatic daily backups via cloud with the possibility to restore the initial configuration
- Open API
- Interactive and user-friendly LT SETUP Web interface available for advanced configuration

## Module parameters

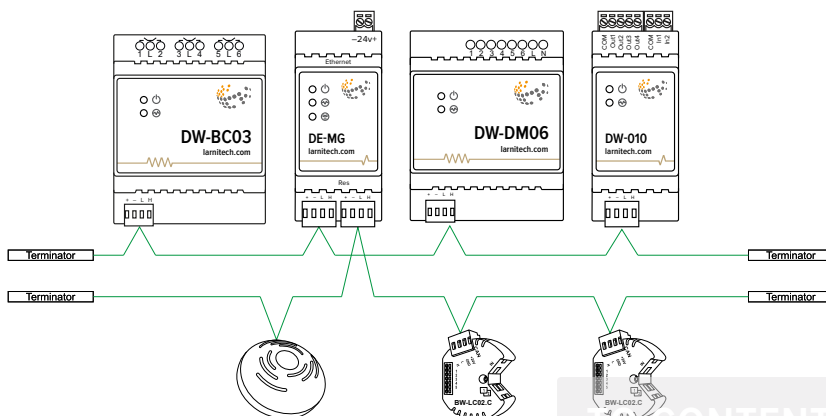
Parameter name	Value
Input/output interfaces	Ethernet, 2xCAN
Data speed	10/100Mb/s
Max CAN devices	100(50 per CAN)
CAN bus topology	BUS
Number of CAN ports	2
Power supply	11.5 ... 27.5 V DC 24V, 2.5A Recommended
Max own current (24V)	140mA
Max CAN bus length	800 m* (twisted pair CAT5e)
Max CAN bus current	700mA
IR Receiver angle	30°
Case material	ABS
Protection	IP40
Equipment installation type	DIN-rail (EN 60715)
Temperature range	-10 ... +50°C
Size	2U, 36x102x58 mm
Weight	145 g

\* installing additional power supply units is required for long lines; the maximum length of the line may be reduced by various interference factors



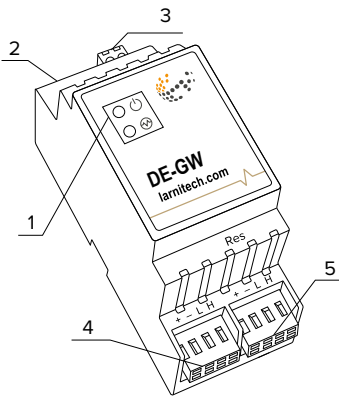
1. Indicators
2. IR Receiver
3. Recovery button
4. Power supply
5. CAN1
6. CAN2
7. Ethernet

## Connection example



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# DE-GW GATEWAY



- 1. Indicators
- 2. Ethernet
- 3. Power supply
- 4. CAN1
- 5. CAN2

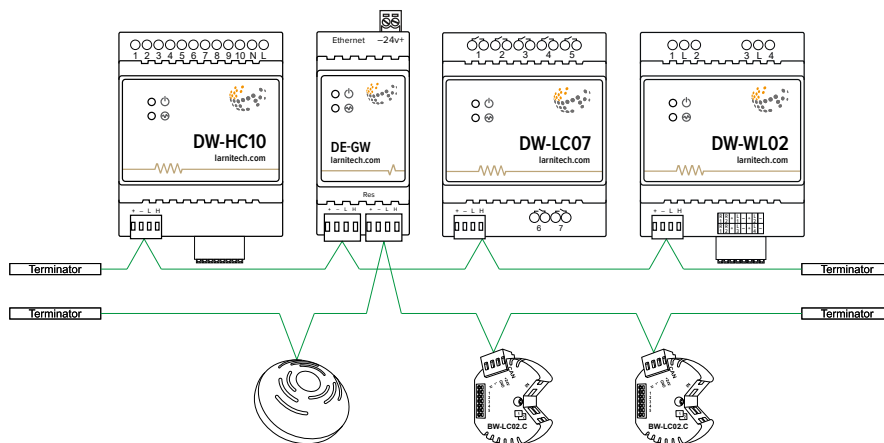
This module is used to connect two additional CAN networks to the system. It also converts Ethernet into CAN bus and vice versa.

## Module parameters

Parameter name	Value
Type of connection	CAN, Ethernet
Input/output interfaces	Ethernet, 2xCAN
Data speed	10/100Mb/s
Max CAN devices	100(50 per CAN)
CAN bus topology	BUS
Number of CAN ports	2
Power supply	11.5 ... 27.5 V DC 24V, 2.5A Recommended
Max own current (24V)	140mA
Max CAN bus length	800 m* (twisted pair CAT5e)
Max CAN bus current	700mA
Case material	ABS
Protection	IP40
Equipment installation type	DIN-rail (EN 60715)
Temperature range	-10 ... +50°C
Size	2U, 35x95x58 mm
Weight	65 g

\* installing additional power supply units is required for long lines; the maximum length of the line may be reduced by various interference factors

## Connection example



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# DW-LC18

## 18-CHANNEL ACTUATOR



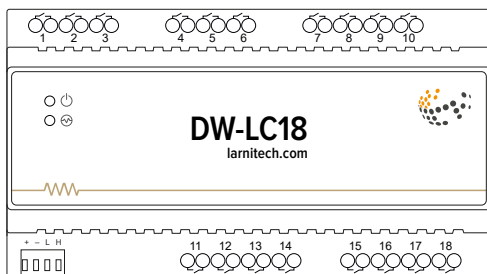
### FEATURES

- Control of a wide range of devices:
  - Lights
  - NC/NO heating valves
  - Blinds
  - 1 or 2-pole gates
  - 1 or 2-pole valves
  - NC/NO locks
  - Fan coil units
- Relays with AgSnO<sub>2</sub> contacts rated for 16A continuous load and 120A 20ms inrush current
- Low noise relay switching
- Built-in logical unit
- Plug and play feature
- Regular software updates

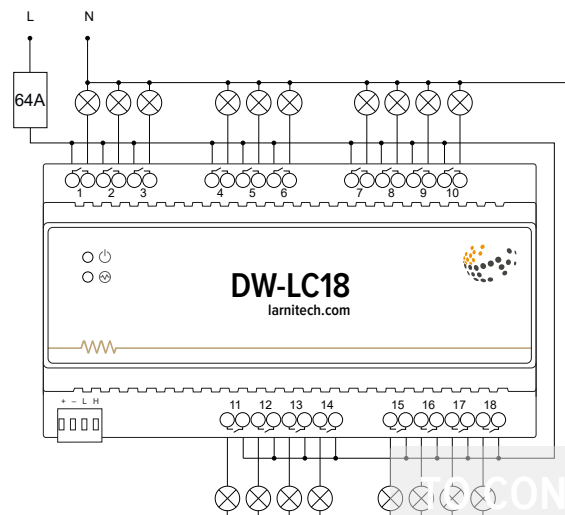
This module is designed for high power AC/DC circuits commutation. Applicable for light, power sockets, for control of fan coil units, locks, blinds/gates.

### Module parameters

Parameter name	Value
Output channels qty	18
Input voltage	0-250V
Current type	AC/DC
Max load per channel	16 A
Power supply	18 ... 27.5 V DC from CAN
Max current(24V)	315 mA
Permissible section of power supply cable to connect in socket:	
single-conductor cable	0.5 ... 4mm <sup>2</sup>
multiple-conductor cable	0.5 ... 4mm <sup>2</sup>
tipped multiple-conductor cable	0.5 ... 2.5mm <sup>2</sup>
Bus type	CAN (4-wire)
Equipment installation type	DIN-rail (EN 60715)
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	9U, 162x86x60 mm
Weight	475 g



### Connection example



# DW-LC10

## 10-CHANNEL ACTUATOR



### FEATURES

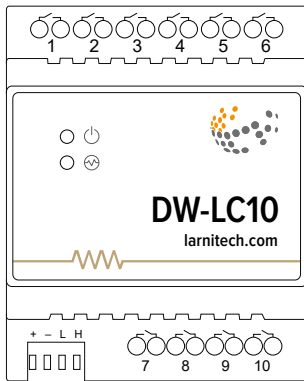
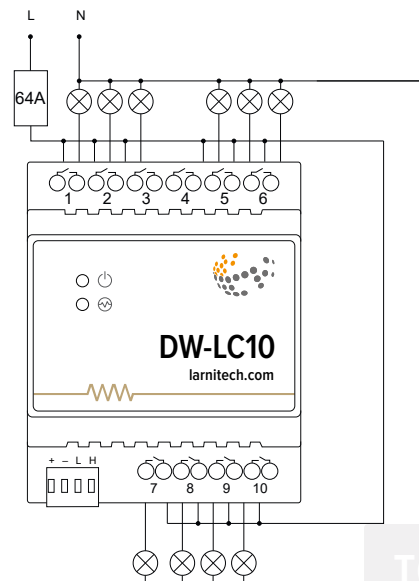
- Control of a wide range of devices:
  - Lights
  - NC/NO heating valves
  - Blinds
  - 1 or 2-pole gates
  - 1 or 2-pole valves
  - NC/NO locks
  - Fan coil units
- Relays with AgSnO2 contacts rated for 16A continuous load and 120A 20ms inrush current
- Low noise relay switching
- Built-in logical unit
- Plug and play feature
- Regular software updates

This module is designed for high power AC/DC circuits commutation. Applicable for light, power sockets, for control of fan coil units, locks, blinds/gates.

### Module parameters

Parameter name	Value
Output channels qty	10
Input voltage	0-250V
Current type	AC/DC
Max load per channel	16 A
Power supply	11.5 ... 27.5 V DC from CAN
Max current(24V)	200 mA
Permissible section of power supply cable to connect in socket:	
single-conductor cable	0.5 ... 4mm <sup>2</sup>
multiple-conductor cable	0.5 ... 4mm <sup>2</sup>
tipped multiple-conductor cable	0.5 ... 2.5mm <sup>2</sup>
Bus type	CAN (4-wire)
Equipment installation type	DIN-rail (EN 60715)
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	4U, 69x115x58 mm
Weight	250 g

### Connection example



# DW-LC07

## 7-CHANNEL ACTUATOR



### FEATURES

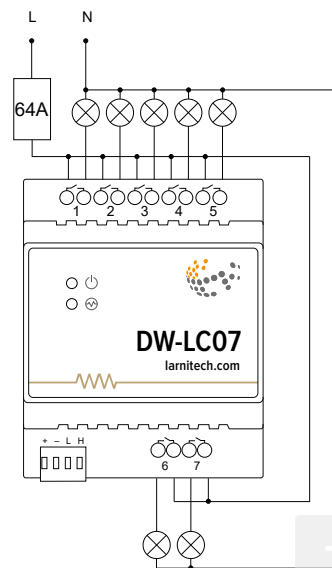
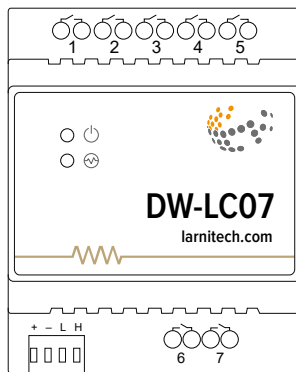
- Control of a wide range of devices:
  - Lights
  - NC/NO heating valves
  - Blinds
  - 1 or 2-pole gates
  - 1 or 2-pole valves
  - NC/NO locks
  - Fan coil units
- Relays with AgSnO2 contacts rated for 16A continuous load and 120A 20ms inrush current
- Low noise relay switching
- Built-in logical unit
- Plug and play feature
- Regular software updates

This module is designed for high power AC/DC circuits commutation. Applicable for light, power sockets, for control of fan coil units, locks, blinds/gates.

### Module parameters

Parameter name	Value
Output channels qty	7
Input voltage	0-250V
Current type	AC/DC
Max load per channel	16 A
Power supply	11.5 ... 27.5 V DC from CAN
Max current(24V)	150 mA
Permissible section of power supply cable to connect in socket:	
single-conductor cable	0.5 ... 4mm <sup>2</sup>
multiple-conductor cable	0.5 ... 4mm <sup>2</sup>
tipped multiple-conductor cable	0.5 ... 2.5mm <sup>2</sup>
Bus type	CAN (4-wire)
Equipment installation type	DIN-rail (EN 60715)
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	4U, 69x115x58 mm
Weight	180 g

### Connection example



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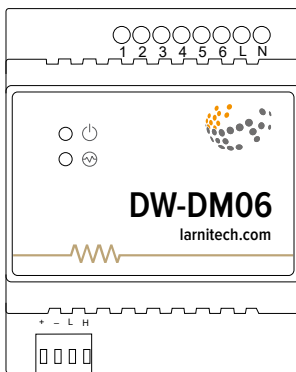
# DW-DM06

## 6-CHANNEL DIMMER

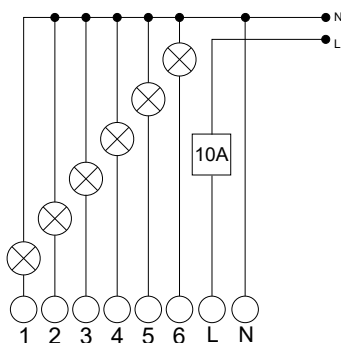


### FEATURES

- R/C load type supports (6 x 200 W)
- Works with halogen /LED lights
- Advanced LED light settings
- Soft start mode
- Overload protection
- Overheating protection
- Short-circuit protection
- Plug and play (automatically detected and configured by the system)
- Built-in logical unit
- Regular system updates



### Connection example



This module is designed for smooth adjustment of brightness of lighting devices (non reactive load). The dimmer type is MOSFET with trailing edge dimming.

### Module parameters

Parameter name	Value
Output channels qty	6
Input voltage	100-240V AC, 50-60 Hz
Current type	AC
Max load per device	5.45A (1200W at 220V)
Max load per channel	0.9A (200W at 220V)
Dimmer type	MOSFET
Dimming type	trailing edge
Power supply	11.5 ... 27.5 V DC from CAN
Max current (24V)	35 mA
Bus type	CAN (4-wire)
Equipment installation type	DIN-rail (EN 60715)
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	4U, 69x102x58 mm
Weight	180 g

### Supported load types

Load type	Value
Conventional incandescent lamps	0-200W
Halogen light sources	0-200W
LED lamps with dimming support	0-200W
Energy saving lamps with dimming support	0-200W
Electronic ballasts with dimming support	0-200W

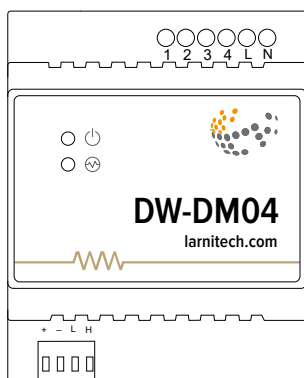
# DW-DM04

## 4-CHANNEL DIMMER

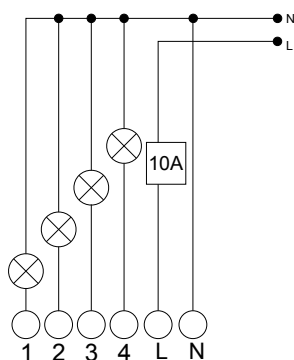


### FEATURES

- R/C load type supports (4 x 500 W)
- Works with halogen /LED lights
- Advanced LED light settings
- Soft start mode
- Overload protection
- Overheating protection
- Short-circuit protection
- Plug and play (automatically detected and configured by the system)
- Built-in logical unit
- Regular system updates



### Connection of 4 dimmer lamps



This module is designed for smooth adjustment of brightness of lighting devices (non reactive load). The dimmer type is MOSFET with trailing edge dimming.

### Module parameters

Parameter name	Value
Output channels qty	4
Input voltage	100-240V AC, 50-60 Hz
Current type	AC
Max load per device	7.27A (1600W at 220V)
Max load per channel	2.27A (500W at 220V)
Dimmer type	MOSFET
Dimming type	trailing edge
Power supply	11.5 ... 27.5 V DC from CAN
Max current(24V)	35 mA
Bus type	CAN (4-wire)
Equipment installation type	DIN-rail (EN 60715)
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	4U, 69x102x58 mm
Weight	180 g

### Supported load types

	Load type	Value
	Conventional incandescent lamps	0-500W
	Halogen light sources	0-500W
	LED lamps with dimming support	0-500W
	Energy saving lamps with dimming support	0-500W
	Electronic ballasts with dimming support	0-500W

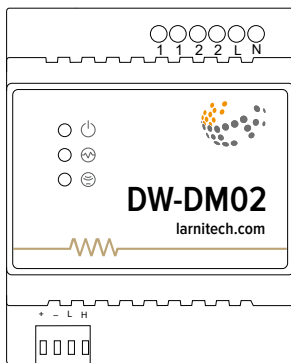
# DW-DM02

## 2-CHANNEL DIMMER

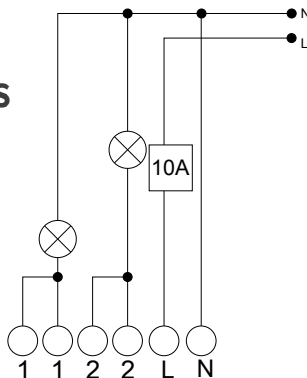


### FEATURES

- R/C load type supports (2 x 1000 W)
- Works with halogen /LED lights
- Advanced LED light settings
- Soft start mode
- Overload protection
- Overheating protection
- Short-circuit protection
- Plug and play (automatically detected and configured by the system)
- Built-in logical unit
- Regular system updates



### Connection of 2 dimmer lamps



This module is designed for smooth adjustment of brightness of lighting devices (non reactive load). The dimmer type is MOSFET with trailing edge dimming.

### Module parameters

Parameter name	Value
Output channels qty	2
Input voltage	100-240V AC, 50-60 Hz
Current type	AC
Max load per device	7.27A (1600W at 220V)
Max load per channel	4.54A (1000W at 220V)
Dimmer type	MOSFET
Dimming type	trailing edge
Power supply	11.5 ... 27.5 V DC from CAN
Max current(24V)	35 mA
Bus type	CAN (4-wire)
Equipment installation type	DIN-rail (EN 60715)
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	4U, 69x102x58 mm
Weight	180 g

### Supported load types

Load type	Value
Conventional incandescent lamps	0-1000W
Halogen light sources	0-1000W
LED lamps with dimming support	0-1000W
Energy saving lamps with dimming support	0-1000W
Electronic ballasts with dimming support	0-1000W

DIN railequipment

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# DW-HC10

## 10-CHANNEL HEATING CONTROLLER



### FEATURES

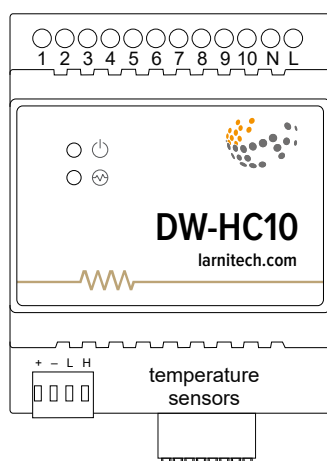
- 10 outputs for NO/NC/PWM valves
- 12 inputs for digital and NTC temperature sensors
- Can to use temperature data from other modules
- with weekly schedule
- Up to 20 heating profiles
- Built-in real time clock

The device is designed for controlling heating devices (radiators, floor heating, fan coil units, etc.).

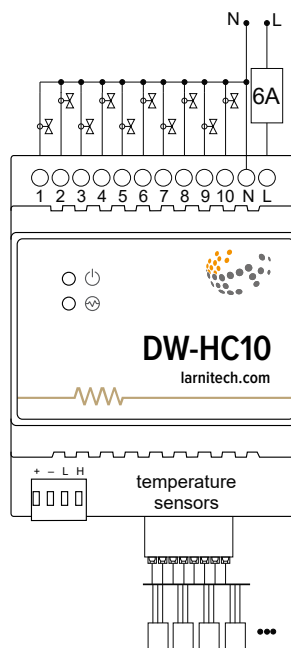
The device is equipped with 12 input channels for connection of temperature sensors.

### Module parameters

Parameter name	Value
Output channels qty	10
Input channels qty	12
Load type	NO / NC / PWM (0.4Hz)
Supported sensors	DS18B20 / NTC (7-15kOhm)
Input voltage	20-250 V
Current type	AC/DC
Max load per channel	0.5A(110W at 220V)
Power supply	11.5 ... 27.5 V DC from CAN
Max current(24V)	110 mA
Sensors line max length	30 m
Bus type	CAN (4-wire)
Equipment installation type	DIN-rail (EN 60715)
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	4U, 69x110x58 mm
Weight	140 g



### Connection example



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# DW-RGB03

## 9-CHANNEL LED CONTROLLER

The module allows connecting RGB and monochrome LED strips.



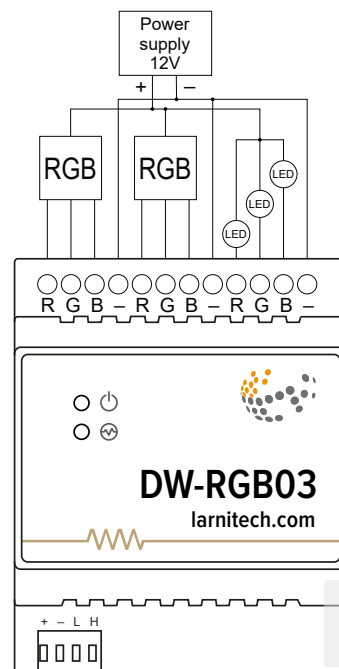
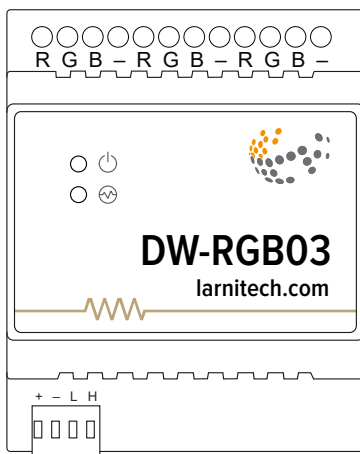
### FEATURES

- Supported load types:
  - 3x RGB
  - 2x RGBW + 1 monochrome channels
  - 1x RGBW + 1x RGB or 4x monochrome channels
  - 9x monochrome channels

### Module parameters

Parameter name	Value
Output channels qty	9
Input voltage	0 ... 25V DC
Current type	DC
Adjustment type	PWM
Max current (per channel)	3A (36W at 12V)
Power supply	11.5 ... 27.5 V DC from CAN
Max current(24V)	55 mA
Bus type	CAN (4-wire)
Equipment installation type	DIN-rail (EN 60715)
Case material	ABS
Protection	IP40
Temperature range	-10 ... +40 °C
Size	4U, 69x110x58 mm
Weight	85 g

### Connection example



DIN rail equipment

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# DW-BC03

## 3-CHANNEL MODULE FOR BLINDS MOTOR CONTROL



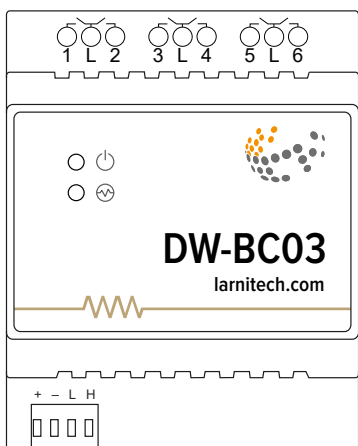
### FEATURES

- Supported load types:
  - curtains with force/low-current control
  - 1 / 2 pole valves
- Overcurrent protection
- Built-in current sensor

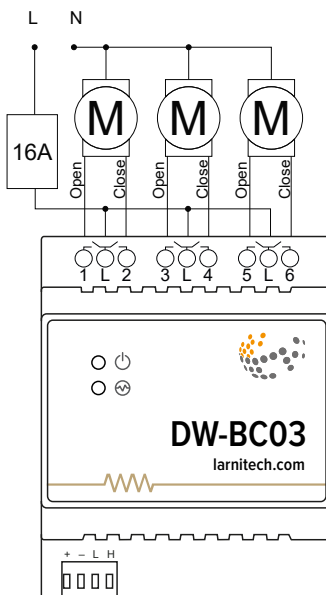
This module provides control of curtains, projector screens, valves or other electrical motors.

### Module parameters

Parameter name	Value
Output channels qty	3
Input voltage	0-250 V AC/DC
Current type	AC/DC
Max load per channel	5 A
Power supply	11.5 ... 27.5 V DC from CAN
Max current(24V)	55 mA
Connection type	CAN
Permissible section of power supply cable to connect in socket:	
single-conductor cable	0.5 ... 4mm <sup>2</sup>
multiple-conductor cable	0.5 ... 4mm <sup>2</sup>
tipped multiple-conductor cable	0.5 ... 2.5mm <sup>2</sup>
Bus type	CAN (4-wire)
Equipment installation type	DIN-rail (EN 60715)
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	4U, 69x110x58 mm
Weight	85 g



### Connection example



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DIN rail equipment

# DW-WL02

## WATER LEAKAGE PROTECTION MODULE



### FEATURES

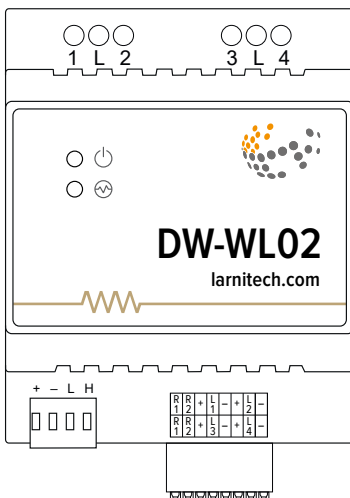
- Supports 1p/2p valves
- Valve feedback reed switch
- Support up to 16 leakage sensors
- Sensor detection and diagnostics
- Sensor sensitivity adjustment

The module supports the connection of 2/4 valves of water supply shutoff and up to 16 leakage sensors.

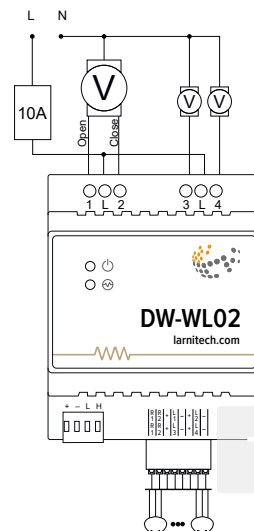
### Module parameters

Parameter name	Value
Output channels qty	4
Number of sensor inputs	4 FW-WL.A/EW-WL.A 16 FW-WL.B/EW-WL.B (4 per input)
Number of dry contact inputs	2
Input voltage	0-250 V AC/DC
Current type	AC/DC
Max load per channel	5 A
Power supply	11.5 ... 27.5 V DC from CAN
Max current(24V)	60 mA
Sensors VCC output	8..12 V
Sensors max VCC current	70 mA
R1-R4 inputs max current	3 mA
Sensor line max length	30m
Bus type	CAN (4-wire)
Equipment installation type	DIN-rail (EN 60715)
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	4U, 69x110x58 mm
Weight	100 g

DIN rail equipment



### Connection of valves and sensors



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# DW-SW16

## 16-CHANNEL ADAPTER FOR BUTTONS

This module can support up to 15 buttons/reed switches or 8 LED buttons.

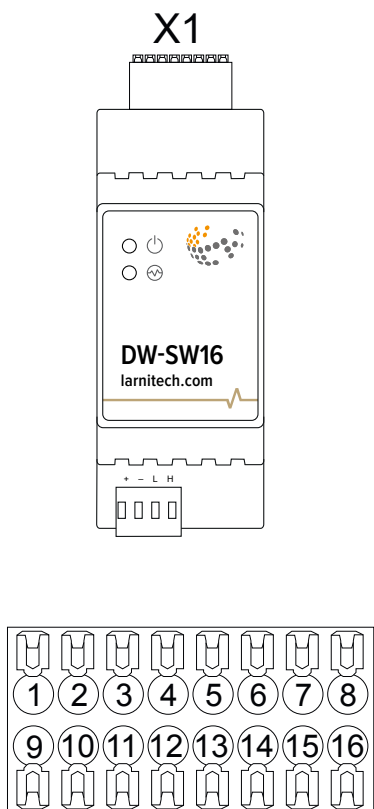


### FEATURES

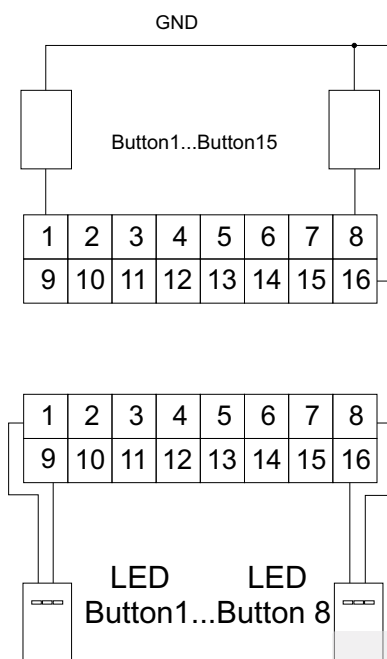
- Up to 15 buttons/reed switches
- Up to 8 LED buttons
- Supports single/double/triple/long click. Up to 4 different actions for each button
- Line noise protection

### Module parameters

Parameter name	Value
Input channels qty	16
Buttons	15
LED Buttons	8
Backlight voltage	3V
Power supply	11.5 ... 27.5 V DC from CAN
Max current(24V)	45mA
Bus type	CAN (4-wire)
Equipment installation type	DIN-rail (EN 60715)
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	2U, 36x102x58 mm
Weight	75g



### Connection of buttons/LED buttons



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# DW-RS485

## RS485 INTERFACE ADAPTER

This module is designed for interface adjustment between the devices which have the RS485 interface and the Smart Home system. This module has an internal 120Ω terminator resistor.



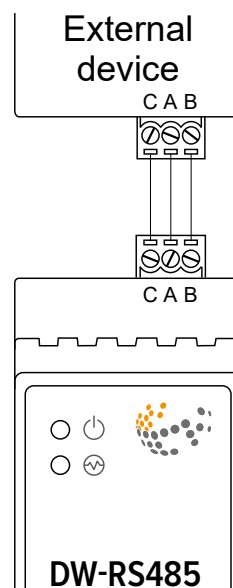
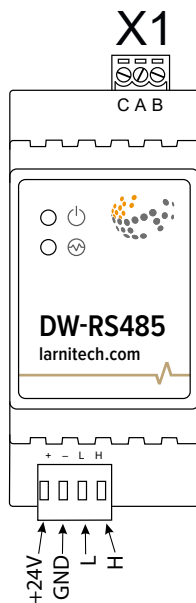
### FEATURES

- Supported protocols:
  - ModBus RTU
  - Custom protocols
- 1200 - 115200 baud rate

### Module parameters

Parameter name	Value
RS485 ports qty	1
Power supply	11.5 ... 27.5 V DC from CAN
Max current(24V)	40mA
Data transfer speed	1200-115200 b/s
Bus type	CAN (4-wire)
Equipment installation type	DIN-rail (EN 60715)
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	2U, 36x90x58 mm
Weight	130 g

### Connection example



DIN railequipment

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# DW-RS232

## RS232 INTERFACE ADAPTER

This module is designed for interface adjustment between the devices which have the RS232 interface and the Smart Home system.

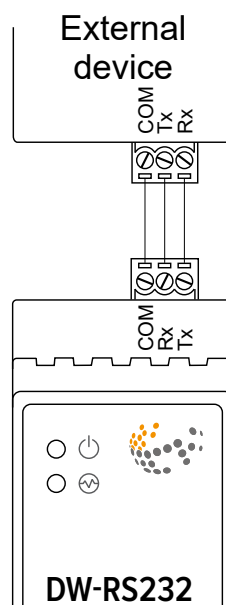


### Module parameters

Parameter name	Value
RS232 ports qty	1
Power supply	11.5 ... 27.5 V DC from CAN
Max current(24V)	40mA
Data transfer speed	1200-115200 b/s
Bus type	CAN (4-wire)
Equipment installation type	DIN-rail (EN 60715)
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	2U, 36x90x58 mm
Weight	130 g



### Connection example

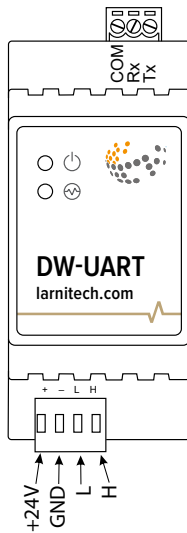


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# DW-UART

## SERIAL INTERFACE ADAPTER

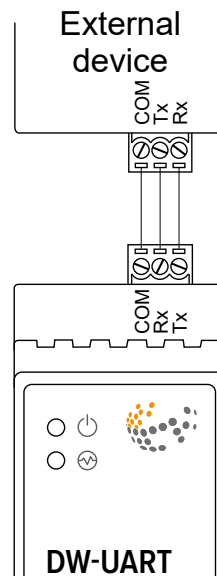
This module is designed for interface adjustment between the devices which have the UART interface (TTL levels) and the Smart Home system.



### Module parameters

Parameter name	Value
UART ports qty	1
Power supply	11.5 ... 27.5 V DC from CAN
Max current(24V)	40mA
Data transfer speed	1200-115200 b/s
Bus type	CAN (4-wire)
Equipment installation type	DIN-rail (EN 60715)
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	2U, 36x97x58 mm
Weight	130 g

### Connection example



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# DW-010

## 4-CHANNEL MODULE FOR DEVICES WITH 0-10V INPUT

This module allows connecting devices with 0-10V inputs and outputs to the Smart Home system.



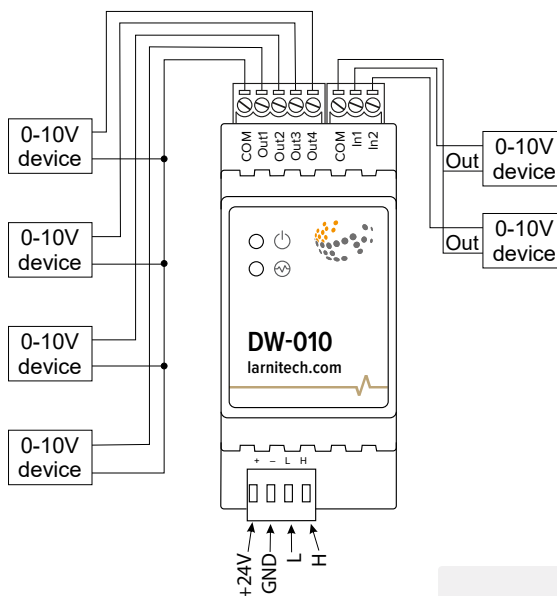
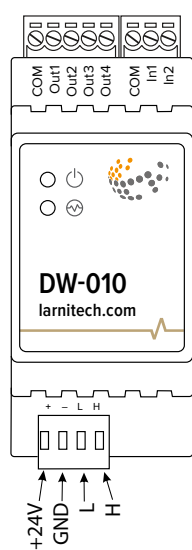
### FEATURES

- 4x 0-10V outputs
- 2x 0-10V inputs

### Module parameters

Parameter name	Value
Input channels qty	2
Output channels quantity	4
Max load per channel	15mA
Power supply	11.5 ... 27.5 V DC from CAN
Max current(24V)	50mA
Bus type	CAN (4-wire)
Equipment installation type	DIN-rail (EN 60715)
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	2U, 36x97x58 mm
Weight	130 g

### Connection example



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# DW-DALI

## 2-CHANNEL DALI INTERFACE ADAPTER

This is the module needed to connect the lamp drivers that are controlled with the help of DALI protocol.



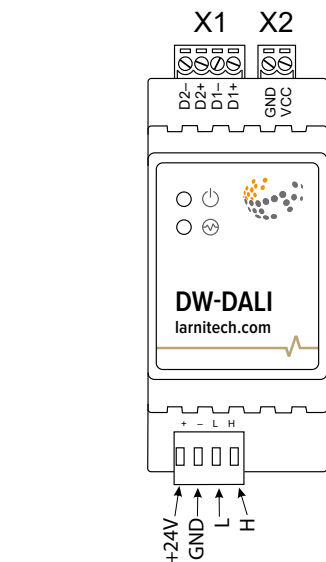
### FEATURES

- Automatic line scanning for new devices
- Built-in bus power injection
- Dali device configuration

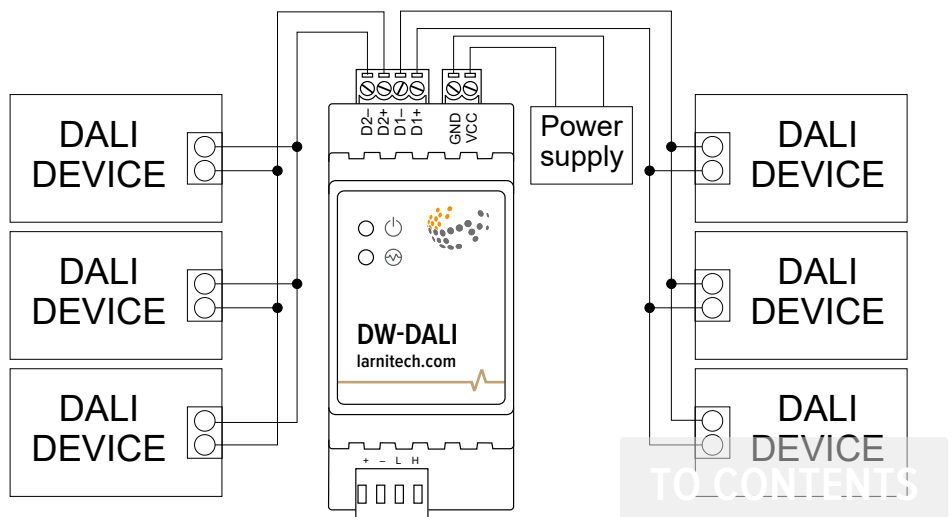
### Module parameters

Parameter name	Value
DALI ports qty	2
DALI-line voltage supply	10.5 – 22.5 V DC
Supported DALI protocols	DT6, DT8
Max number of DALI devices	2x 40*
Peak current of DALI-line power supply	1A
Peak current in DALI-line	300 mA
Power supply	11.5 ... 27.5 V DC from CAN
Max current(24V)	30 mA
BUS type	CAN (4-wire)
Equipment installation type	DIN-rail (EN 60715)
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	2U, 35x97x58 mm
Weight	75 g

\* subject to compliance with other parameters



### Connection example



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# DW-METERS

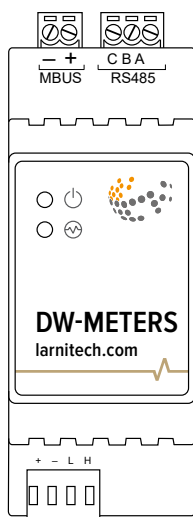
## AMR (AUTOMATIC METER READING) MODULE

This module receives data from the M-BUS, RS485 interface meters connected to it.

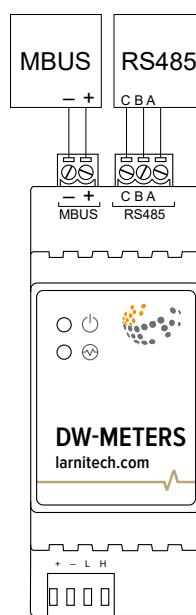


### Module parameters

Parameter name	Value
Interfaces	M-BUS, RS485
Power supply	11.5 ... 27.5 V DC from CAN
Max current(24V)	150 mA
Bus type	CAN (4-wire)
Equipment installation type	DIN-rail (EN 60715)
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	2U, 36x104x58 mm
Weight	130 g



### Connection example



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# PATTRESS BOX EQUIPMENT

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# BW-LC02

## 2-CHANNEL ACTUATOR

Designed for AC/DC circuits commutation. Applicable for lighting and other electrical devices. It has 6 inputs for connecting buttons and reed switches.



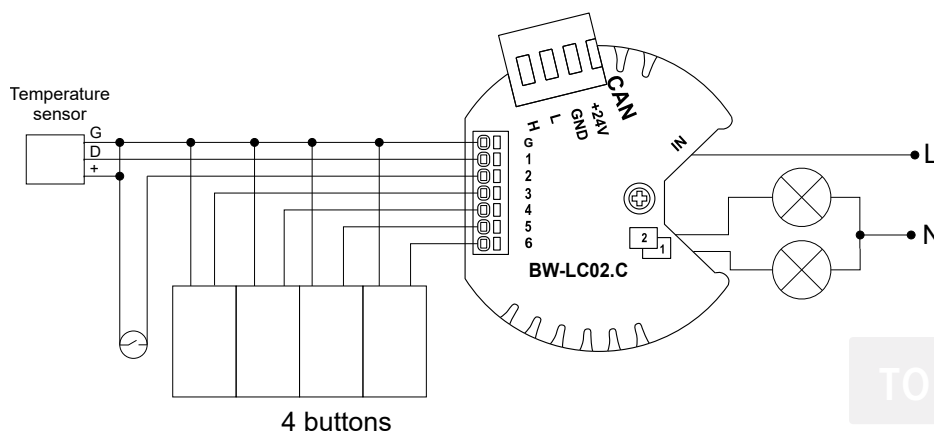
### FEATURES

- Compact size (only 16mm thickness)
- 6 inputs support:
  - Buttons
  - Switches
  - reed switches
  - LED buttons
  - Digital temperature sensor
- Outputs support:
  - Lights
  - NC/NO heating valves
  - NC/NO locks
  - curtains
  - projector screens
  - valves

### Module parameters

Parameter name	Value
Output channels qty	2
Input channels qty	6
Buttons	6
LED Buttons	5
Input voltage	0-250 V
Current type	AC/DC
Max load per channel	2 A (440W at 220V)
Backlight voltage	3V
Power supply	11.5 ... 27.5 V DC from CAN
Max current(24V)	35 mA
Permissible section of power supply cable to connect in socket:	
single-conductor cable	0.5 ... 4 mm <sup>2</sup>
multiple-conductor cable	0.5 ... 4 mm <sup>2</sup>
tipped multiple-conductor cable	0.5 ... 2.5 mm <sup>2</sup>
Temperature sensor line max length	10 m
Bus type	CAN (4-wire)
Equipment installation type	Free
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	45x42x14 mm
Weight	25 g

### Connection example



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# BW-DM DIMMER





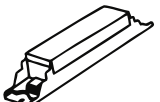
This single-channel dimmer is designed for smooth control of electrical load (non reactive load). It has 3 input channels for connecting buttons and reed switches. MOSFET type.



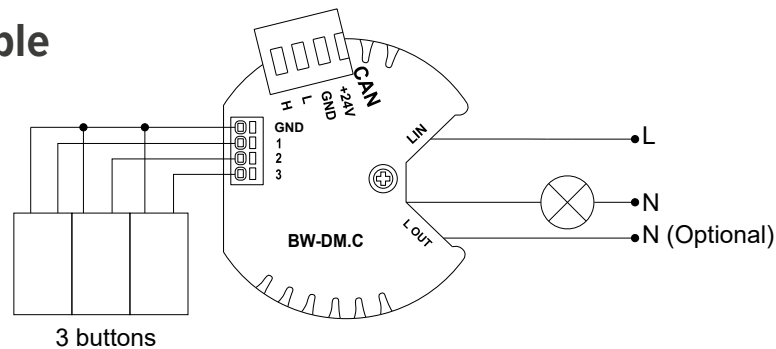
## Module parameters

Parameter name	Value
Output channels qty	1
Input channels qty	3
Input voltage	100-250 V 50Hz
Current type	AC
Max load	0.9A (200W at 220V)
Min load	0.09A (20W at 220V)
Power supply	11.5 ... 27.5 V DC from CAN
Max current(24V)	40 mA
Temperature sensor line max length	0.3 m
Bus type	CAN (4-wire)
Mounting	Free
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	45x42x14 mm
Weight	25 g

## Supported load types

Load type	Value
 Conventional incandescent lamps	20-200W
 Halogen light sources	20-200W
 LED lamps with dimming support	20-200W
 Energy saving lamps with dimming support	20-200W
 Electronic ballasts with dimming support	20-200W

## Connection example



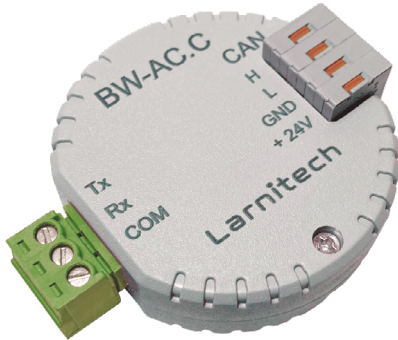
● Pattress box equipment ●

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# BW-AC

## AC ADAPTER

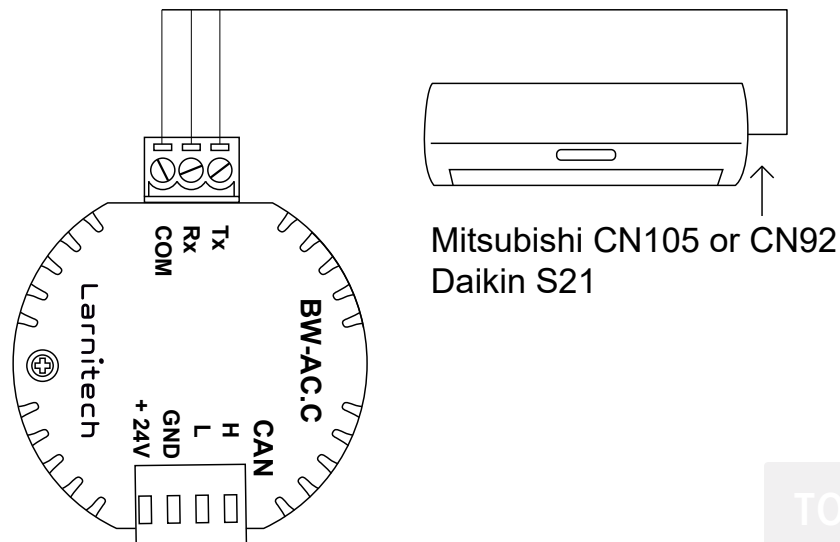
This module is designed for integration Mitsubishi AC (connector CN105, CN92), Daikin AC (connector S21) to the Smart Home system.



### Module parameters

Parameter name	Value
UART ports qty	1
Power supply	11.5 ... 27.5 V DC from CAN
Max current(24V)	25 mA
Bus type	CAN (4-wire)
Mounting	Free
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	45x42x14 mm
Weight	15 g

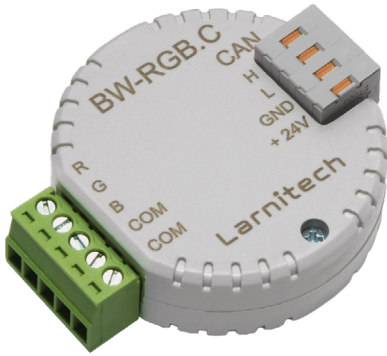
### Connection example



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# BW-RGB 3-CHANNEL LED CONTROLLER

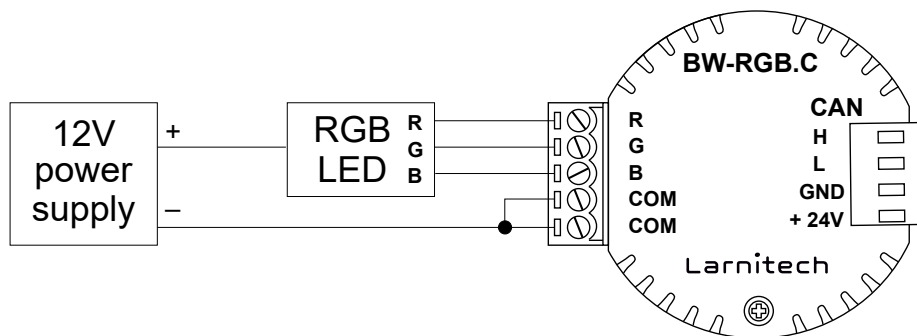
This module allows controlling RGB strip or three monochrome LED strips.



## Module parameters

Parameter name	Value
Output channels qty	3
Input voltage	11.5 ... 25V
Current type	DC
Adjustment type	PWM
Max load per channel	1 A (12W at 12V)
Max load power per device	3A (36W at 12V)
Power supply	11.5 ... 27.5 V DC from CAN
Max current(24V)	25 mA
Bus type	CAN (4-wire)
Mounting	Free
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	45x42x14 mm
Weight	25 g

## Connection example



● Pattress box equipment

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# BW-SW06

## 6-CHANNEL INPUT MODULE

This module is used to connect buttons/reed switches.



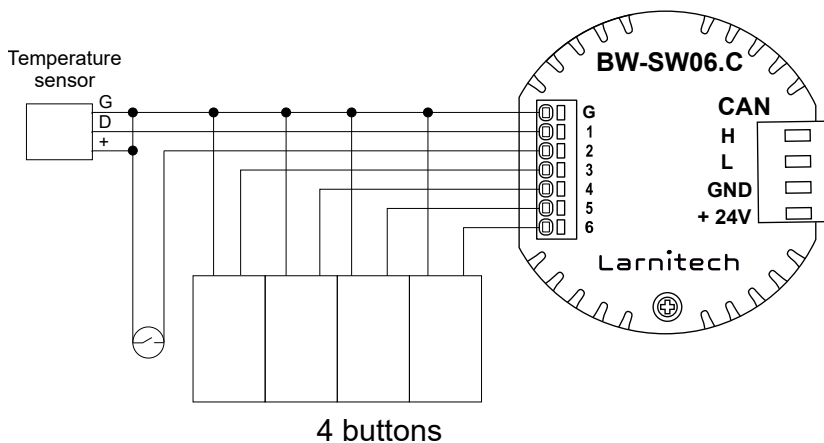
### Module parameters

Parameter name	Value
Input channels qty	6
Buttons	6
LED Buttons	5
Backlight voltage	3V
Max current(24V)	30 mA
Power supply	11.5 ... 27.5 V DC from CAN
Temperature sensor line max length	10 m
Bus type	CAN (4-wire)
Mounting	Free
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	45x42x14 mm
Weight	25 g

### FEATURES

- 6 inputs support:
  - Buttons
  - Switches
  - Reed switches
  - LED buttons
  - Digital temperature sensor

### Connection example



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# BW-SW24V

## 24V BUTTONS INPUT MODULE

This module is used to connect 24V buttons w/wo LED backlighting.



### FEATURES

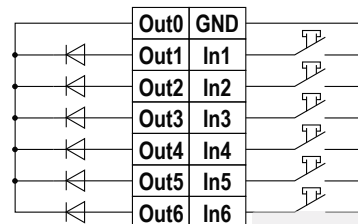
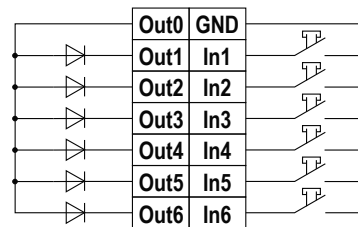
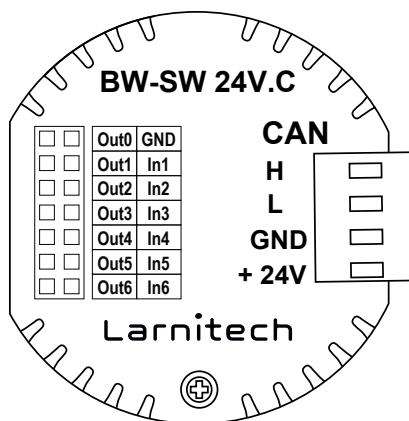
- 6 inputs
- Supports both common anode and cathode LEDs

### Module parameters

Parameter name	Value
Output channels qty	6
Input channels qty	6
Buttons	6
LED Buttons	6
Backlight voltage	11.5 ... 27.5 V DC (from CAN)
Max current(24V)	30 mA
Power supply	11.5 ... 27.5 V DC from CAN
Bus type	CAN (4-wire)
Mounting	Free
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	45x42x14 mm
Weight	25 g

### Connection example

● Pattress box equipment ●



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# BW-LSA

## LEAKAGE SENSOR ADAPTER

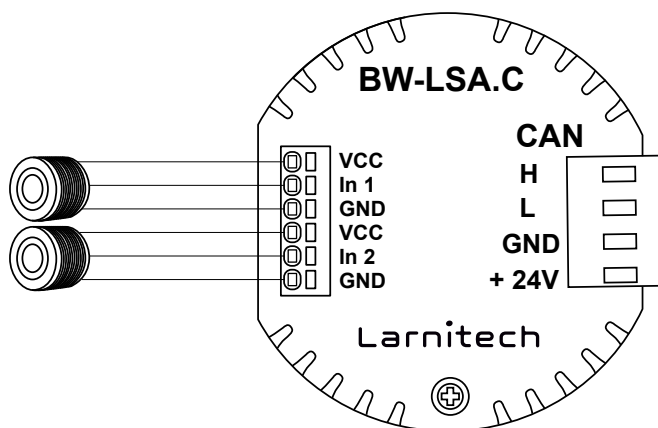
This module allows connecting two leakage sensors and has the function of detecting the presence of the sensor.



### Module parameters

Parameter name	Value
Input channels qty	2
Power supply	11.5 ... 27.5 V DC from CAN
Max current(24V)	65 mA
Bus type	CAN (4-wire)
Compatible with	EW-WL FW-WL
Output voltage	8-14V
Output current	20 mA
Mounting	Free
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	45x42x14 mm
Weight	25 g

### Connection example



# BW-IO

## 6-CHANNEL I/O

### MODULE

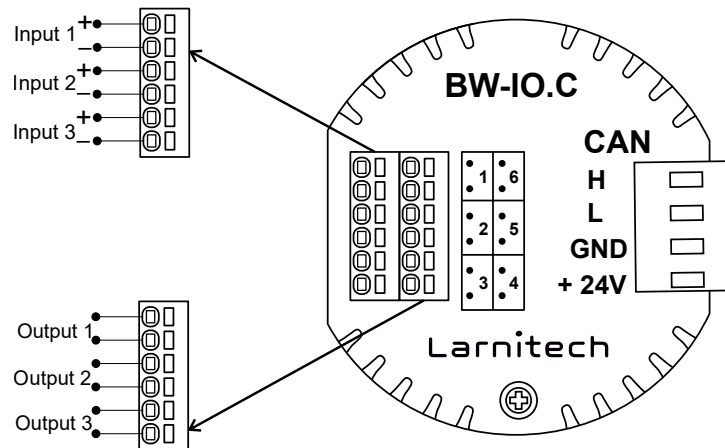
The module is designed for connection of other digital devices which do not have standard interfaces.



### Module parameters

Parameter name	Value
Input channels qty	3
Output channels qty	3
Voltage that may be applied to the input channels	0...15 V DC
Min detected voltage threshold	2.5V
Max output switching voltage	60V AC/DC
Max output switching current	50mA
Power supply	11.5 ... 27.5 V DC from CAN
Max current(24V)	25 mA
Bus type	CAN (4-wire)
Mounting	Free
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	45x42x14 mm
Weight	15 g

### Connection example



● Pattress box equipment ●

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# BW-NA

## NEST ADAPTER

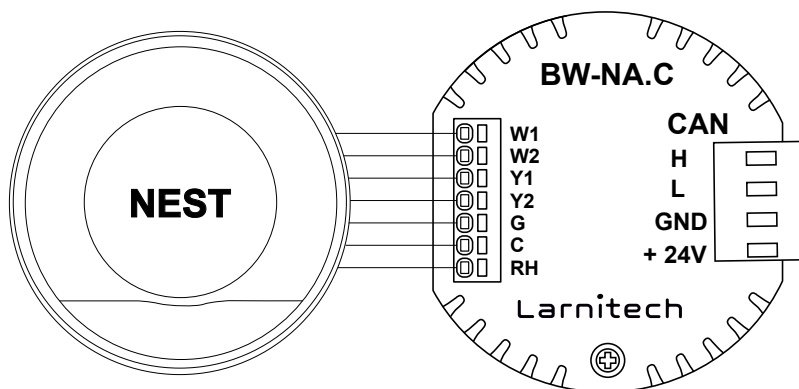
This module is an adapter for connecting NEST thermostat (US version only) to the Smart Home system.



### Module parameters

Parameter name	Value
Input channels qty	5
Output	24 V AC
Power supply	23 ... 25 V DC from CAN
Max current(24V)	70 mA
Bus type	CAN (4-wire)
Mounting	Free
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	45x42x14 mm
Weight	15 g

### Connection example



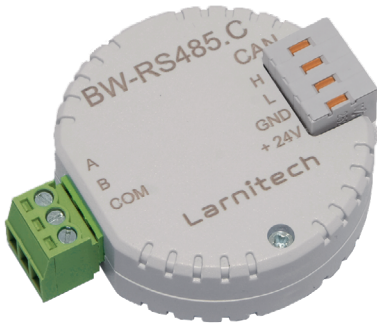
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# BW-RS485

## RS485 INTERFACE ADAPTER

This module is designed for interface adjustment between the devices which have the RS485 interface and the Smart Home system. The module has an internal 120Ω terminator resistor.



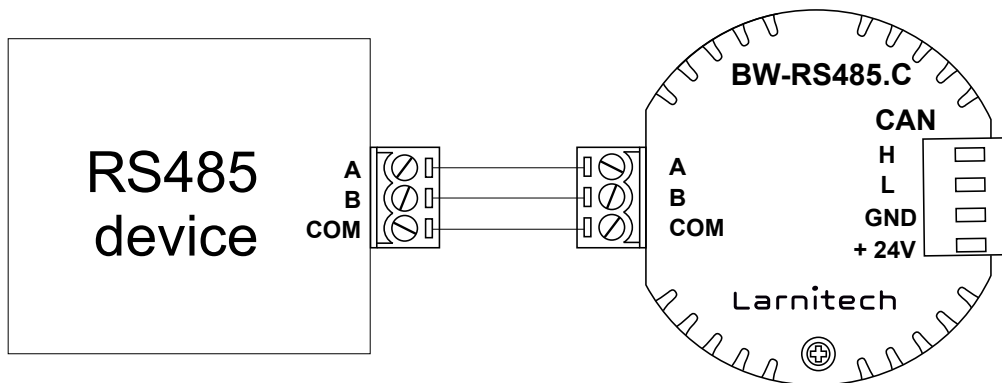
### Module parameters

Parameter name	Value
RS485 port quantity	1
Power supply	11.5 ... 27.5 V DC from CAN
Max current(24V)	25 mA
Bus type	CAN (4-wire)
Mounting	Free
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	45x42x14 mm
Weight	15 g

### FEATURES

- Supported protocols:
  - ModBus RTU
  - Custom protocols
- 1200 - 115200 baud rate

### Connection example



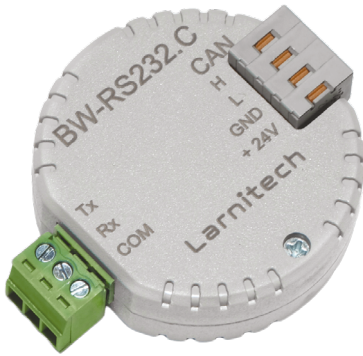
● Pattress box equipment ●

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# BW-RS232

## RS232 INTERFACE ADAPTER

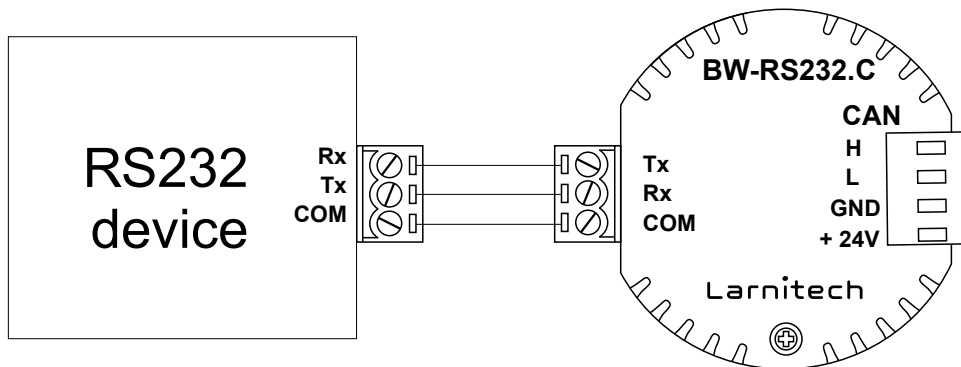
This module is designed for interface adjustment between the devices which have the RS232 interface and the Smart Home system.



### Module parameters

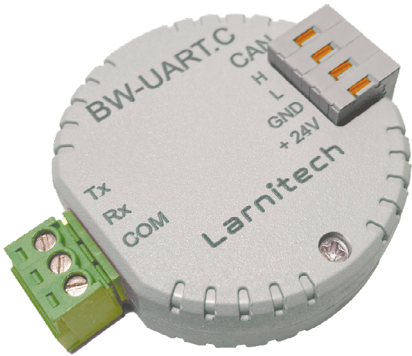
Parameter name	Value
RS232 port quantity	1
Power supply	11.5 ... 27.5 V DC from CAN
Max current(24V)	25 mA
Bus type	CAN (4-wire)
Mounting	Free
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	45x42x14 mm
Weight	15 g

### Connection example



# BW-UART SERIAL PORT ADAPTER

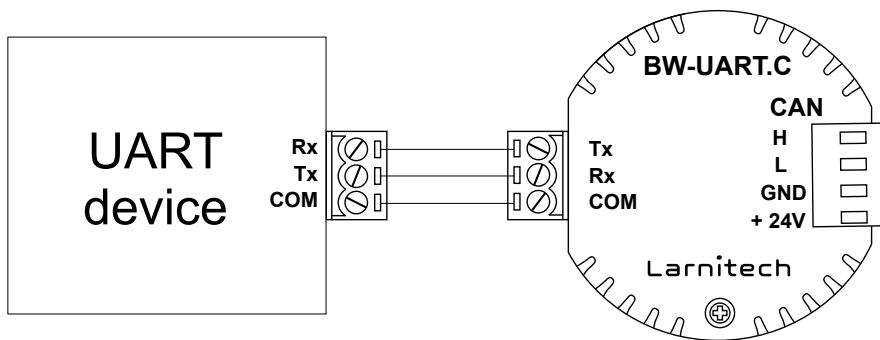
This module is designed for interface adjustment between the devices which have the UART interface (TTL levels) and the Smart Home system.



## Module parameters

Parameter name	Value
UART port quantity	1
Power supply	11.5 ... 27.5 V DC from CAN
Max current(24V)	25 mA
Bus type	CAN (4-wire)
Mounting	Free
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	45x42x14 mm
Weight	15 g

## Connection example



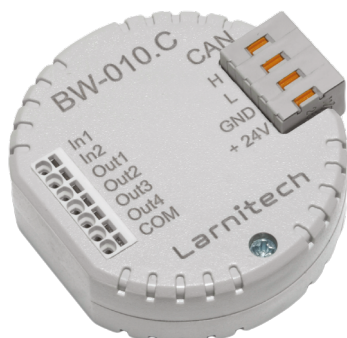
● Pattress box equipment ●

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# BW-010

## 4-CHANNEL MODULE FOR DEVICES WITH 0-10V INPUT

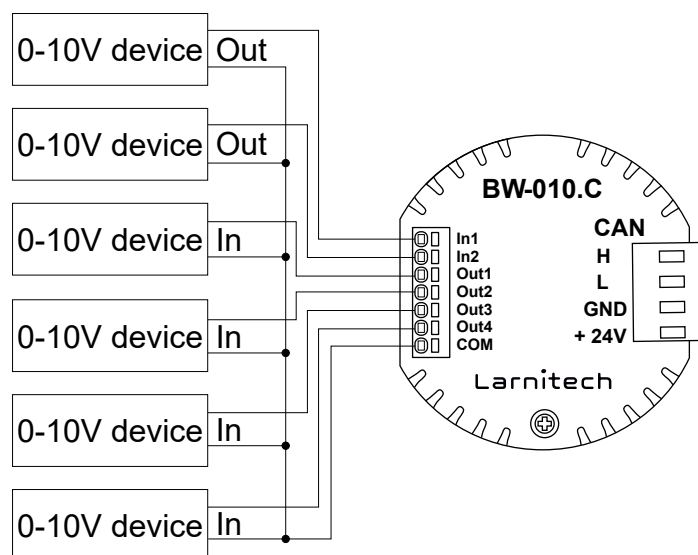
This module allows connecting devices with 0-10V input interface to the Smart Home system.



### Module parameters

Parameter name	Value
0-10 input port quantity	2
0-10 output port quantity	4
Max load per channel	15mA
Power supply	11.5 ... 27.5 V DC from CAN
Max current(24V)	55 mA
Bus type	CAN (4-wire)
Mounting	Free
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	45x42x14 mm
Weight	15 g

### Connection example



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# SENSORS

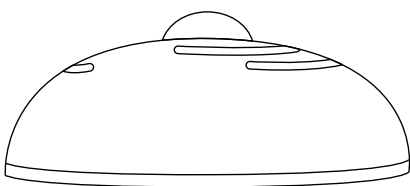
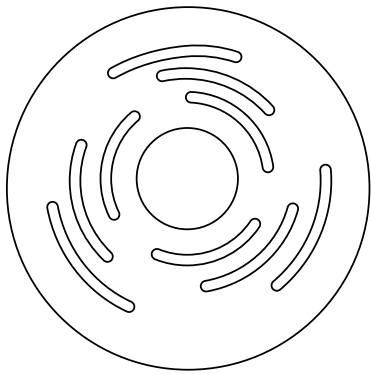
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## CW-HTMLI-II / CW-CO2 6 IN 1 SENSOR

This module contains motion, lighting, humidity, temperature, CO2 sensors and an IR transmitter.



### Module parameters

Parameter name	Value
Control parameters	Humidity, lighting, movement, temperature, CO2 (CW-CO2 only)
Angle of vision IR	360°
Power supply	11.5 ... 27.5 V DC from CAN
Max current(24V)	100 mA
Max IR distance	3 meters*
Bus type	CAN (4-wire)
Mounting	Wall, ceiling
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	85x85x35 mm
Weight	70 g

\* Depends on many factors, such as the sensitivity of the IR receiver, the reflectivity of surfaces etc. Recommended distance up to 3 meters

# CW-M-II / CW-M-II (black) / CW-MLI-II

## MOTION SENSOR

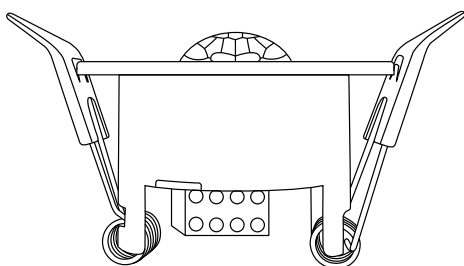
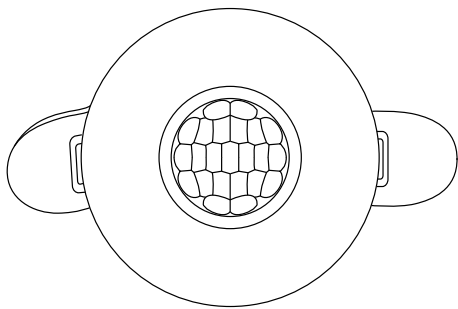
This module contains motion sensor, lighting sensor, and an IR transmitter.



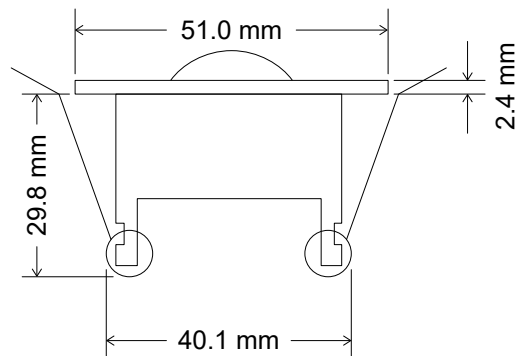
### Module parameters

Parameter name	Value
Control parameters	Motion, Lightning (CW-MLI-II only)
Angle of vision IR	360° (CW-MLI-II only)
Max IR distance	3 meters* (CW-MLI-II only)
Power supply	11.5 ... 27.5 V DC from CAN
Max current(24V)	50 mA
Bus type	CAN (4-wire)
Equipment installation type	Cell
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	51x51x37 mm
Weight	25 g

\* Depends on many factors, such as the sensitivity of the IR receiver, the reflectivity of surfaces etc. Recommended distance up to 3 meters



### Module dimentions



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## CW-MLI / CW-M

### MICRO-SIZED 3 IN 1 SENSOR

This module contains motion, lighting (CW-MLI only) sensors and an IR transmitter (CW-MLI only).

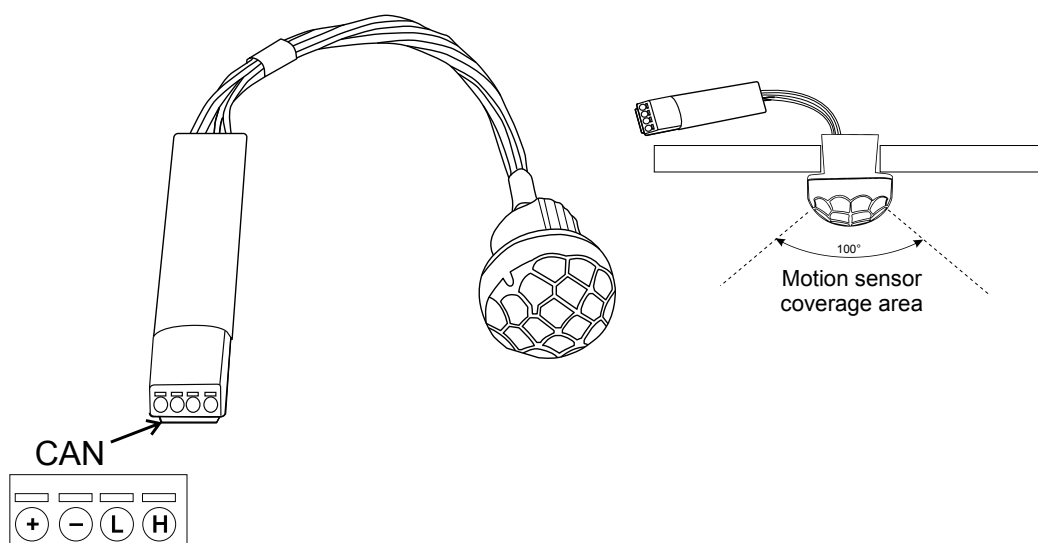


### Module parameters

Parameter name	Value
Control parameters	Motion, lighting(optional)
Angle of vision IR	360°
Power supply	11.5 ... 27.5 V DC from CAN
Max current(24V)	50 mA
Max IR distance	3 meters*
Bus type	CAN (4-wire)
Mounting	Cell
Protection	IP40
Temperature range	-10 ... +50 °C
Size	17x17x60 mm
Weight	15 g

\* Depends on many factors, such as the sensitivity of the IR receiver, the reflectivity of surfaces etc. Recommended distance up to 3 meters

### Connection example



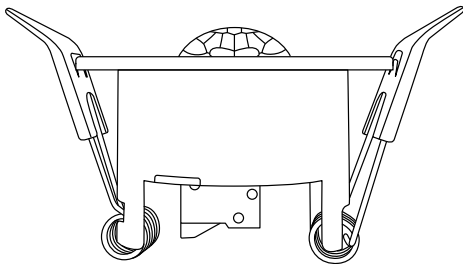
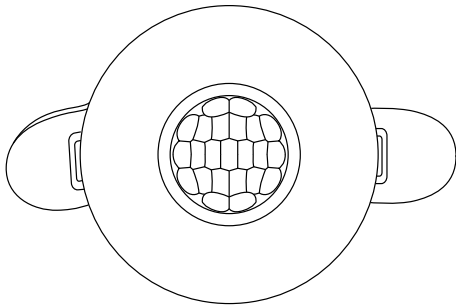
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# CW-MSD

## MICRO-SIZED MOTION SENSOR

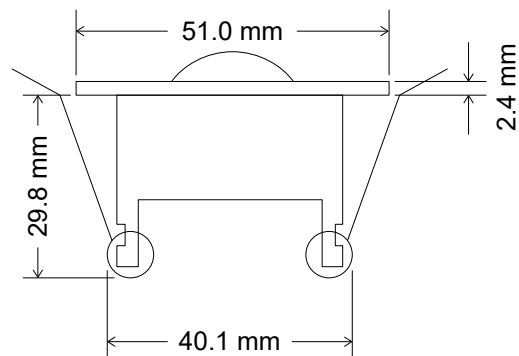
Motion sensor which can be connected to the Metafora series modules.



### Module parameters

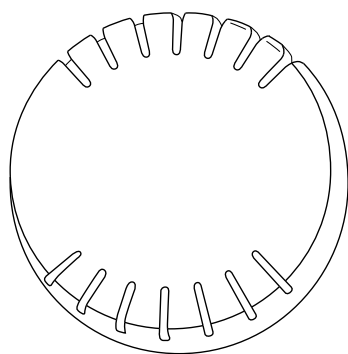
Parameter name	Value
Control parameters	Motion
Angle of motion	100°
Power supply	5 ... 13 V DC
Max current(13V)	1 mA
Max detection distance	10m
Bus type	CAN (4-wire)
Compatible with	Metafora series devices
Equipment installation type	Cell
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	51x51x37 mm
Weight	15 g

### Module dimentions



## WW-HTL 3 IN 1 SENSOR

This module contains temperature, lighting, and humidity sensors.



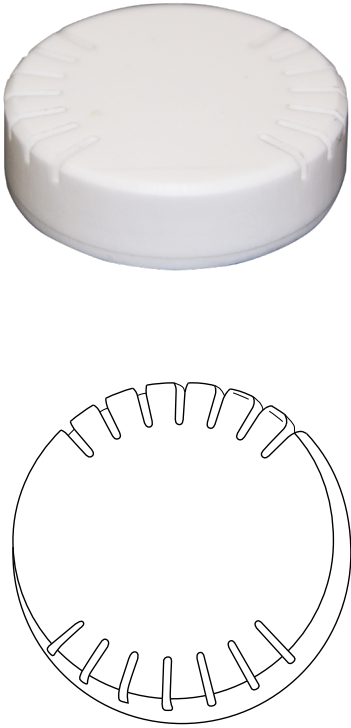
### Module parameters

Parameter name	Value
Control parameters	Temperature, humidity, lighting
Temperature measuring range	-10 ... +50°C
Humidity measuring range	0 ... 100%
Power supply	11.5 ... 27.5 V DC from CAN
Max current(24V)	25 mA
Bus type	CAN (4-wire)
Mounting	Wall, ceiling
Case material	ABS
Protection	IP40
Size	40x40x12
Weight	50 g

# WW-TS

## TEMPERATURE SENSOR

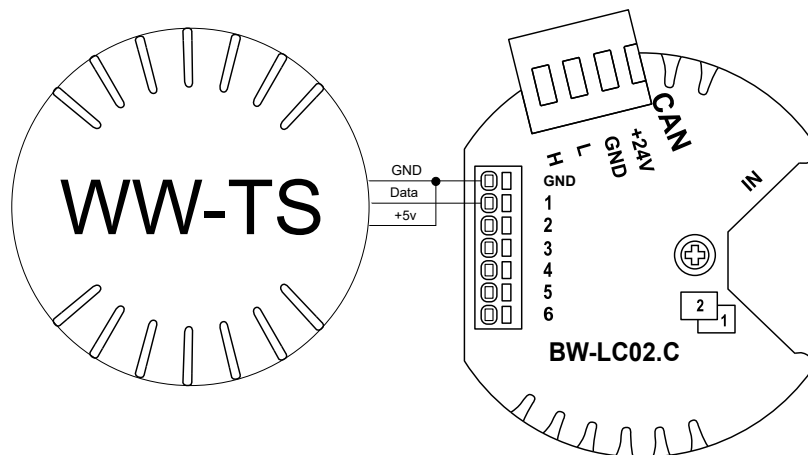
It is a temperature sensor for DW-HCxx module.



### Module parameters

Parameter name	Value
Control parameters	Temperature
Temperature measuring range	-20 ... +60°C
Power supply	5 V DC
Max current	5 mA
Bus type	One Wire
Compatible with	DW-HCxx BW-LC/DM/SW DW-HT07 Metafora devices
Mounting	Wall
Case material	ABS
Protection	IP40
Size	40x40x12 mm
Weight	35 g

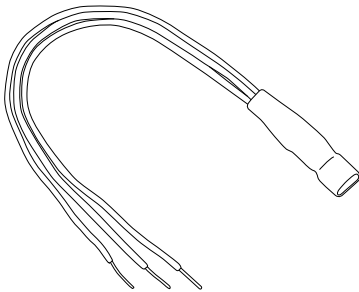
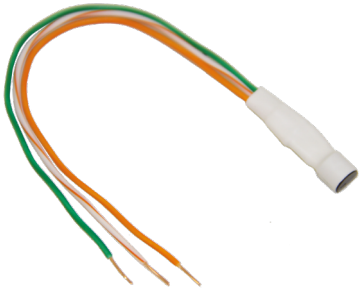
### Connection example



# FW-TS

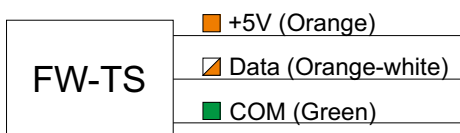
## TEMPERATURE SENSOR

This is an open-frame temperature sensor for DW-HCxx module.

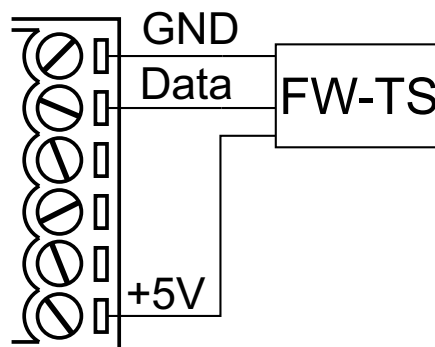


### Module parameters

Parameter name	Value
Control parameters	Temperature
Temperature measuring range	-20 ... +60°C
Power supply	5 V DC
Max current	5 mA
Bus type	One Wire
Compatible with	DW-HCxx BW-LC/DM/SW DW-HT07 Metafora devices
Mounting	Free
Protection	IP40
Size	5x4x8 mm
Weight	15 g



### Connection example

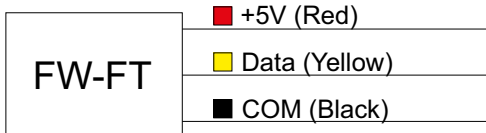
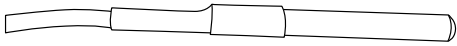


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# FW-FT

## UNDERFLOOR HEATING TEMPERATURE SENSOR

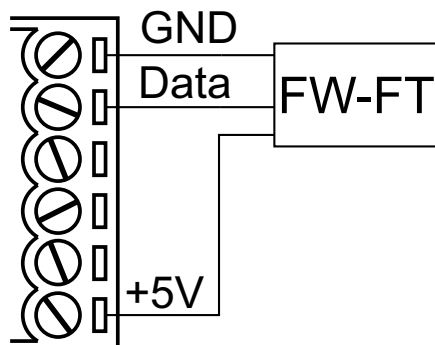
This is an underfloor heating temperature sensor for DW-HCxx, it can also be used to measure the outdoor temperature.



### Module parameters

Parameter name	Value
Control parameters	Temperature
Temperature measuring range	-20 ... +60°C
Power supply	5 V DC
Max current	5 mA
Bus type	One Wire
Compatible with	DW-HCxx BW-LC/DM/SW DW-HT07 Metafora devices
Mounting	Built into the floor/outdoor
Sensor cable length	3 m
Sensor line max length	30 m*
Protection	IP65
Size	8x8x50 mm
Weight	35 g

### Connection example

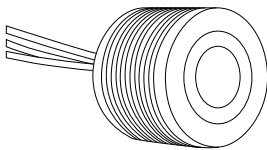


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# EW-WL

## BUILT-IN FLOOR LEAKAGE SENSOR

This is a water leakage sensor with an alarm light. It is mountable in the floor surface. Used together with DW-WL or BW-LSA modules.



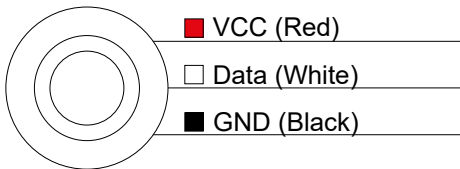
### FEATURES

- Sensor presence detection
- Customizing the indication colors
- Adjusting the sensor sensitivity
- Connections of several sensors to one bus

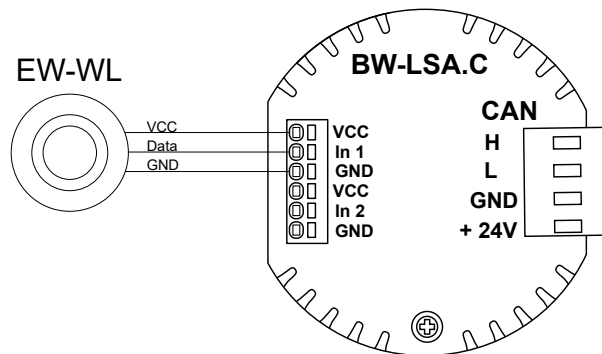
### Module parameters

Parameter name	Value
Power supply	9...12 V DC
Max current	20 mA
Compatible with	Metafora MF-10 DW-WL02/HTxx BW-LSA
Mounting	Built into the floor
Case material	stainless steel
Protection	IP65
Temperature range	-10 ... +50 °C
Size	18x18x20 mm
Weight	20 g

### EW-WL



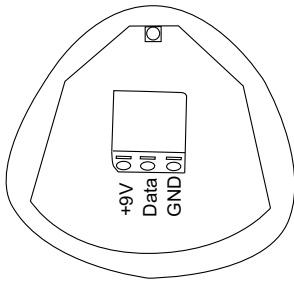
### Connection example



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# FW-WL ON-THE-FLOOR LEAKAGE SENSOR

The sensor is placed on the floor surface. It has an alarm light, which changes from green to red if the sensor detects water on the floor. Used together with DW-WL02 or BW-LSA modules.



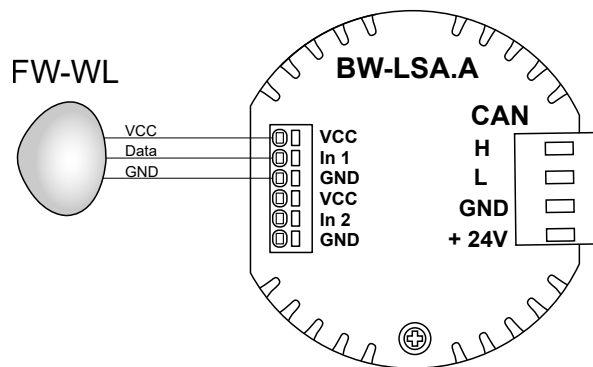
## Module parameters

Parameter name	Value
Power supply	9...12 V DC
Max current	20 mA
Compatible with	MF-10 DW-WL02/HTxx BW-LSA
Mounting	Free
Case material	ABS
Protection	IP64
Temperature range	-10 ... +50 °C
Size	57x47x22 mm
Weight	35 g

## FEATURES

- Sensor presence detection
- Customizing the indication colors
- Adjusting the sensor sensitivity
- Connections of several sensors to one bus

## Connection example



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# MULTIROOM

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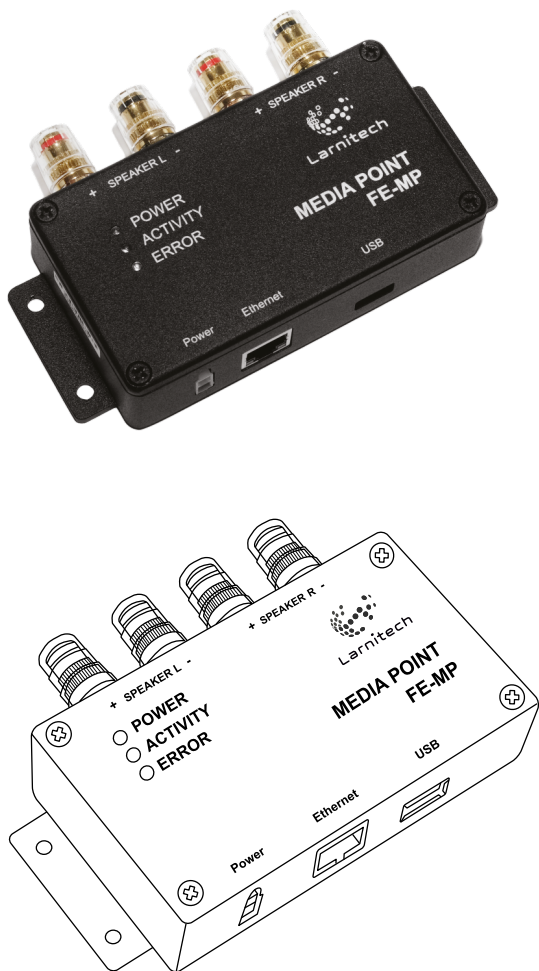
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# FE-MP MEDIA POINT

Multiroom system media point with a built-in amplifier. Used to play music, the Internet radio, system notifications. Supports DLNA protocol. Can be used either within the Smart Home system or separately.



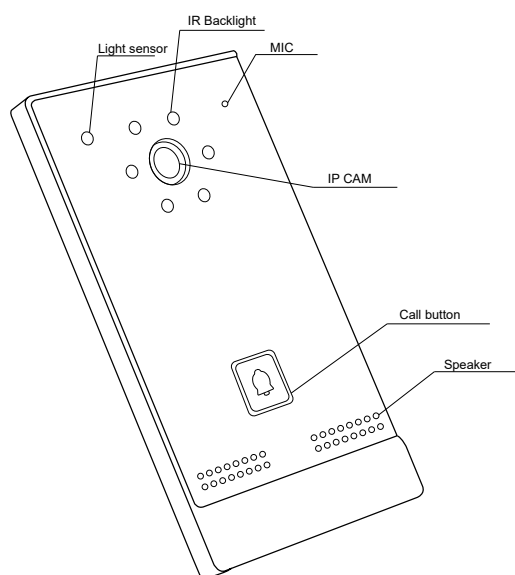
## Module parameters

Parameter name	Value
Analog outout channels qty	2
Speakers	4-8 ohm
Max power output audio channel	2x20W
Connection type	Ethernet
Transfer data speed	10/100 MB/s
Power supply	23...26V DC
Max current(24V)	3.3 A, 24V 4.2 A Recommended
Case material	Aluminium
Protection	IP40
Mounting type	Free
Temperature range	-10...+50 °C
Dimensions	140x64x30 mm
Weight	500 g

# FE-IC

## VIDEO INTERCOM

Video intercom calling panel. It has a built-in 1MP camera with IR illumination and a relay for connecting the electric lock. It also has a built-in 2Gb memory for taking photos or recording videos. Supports SIP and DLNA protocols.



### Module parameters

Parameter name	Value
Camera	Full HD (1920×1080)
Card reader	RFID 125kHz
IR lighting	1 m
Connection type	Ethernet
Protocols	SIP, DLNA
Power supply	11.5 ... 27.5 V DC, Passive POE 24V
Max current(24V)	200 mA
Case material	Aluminium alloy panel, Waterproof
Protection	IP65
Mounting type	Wall surface mount
Temperature range	-20...+35 °C
Dimensions	153x85x45 mm
Weight	620 g

## FE-IC.nfc

### VIDEO INTERCOM

Video intercom calling panel. It has a built-in NFC reader, a 1MP camera with IR illumination and a relay for connecting the electric lock. It also has a built-in 6Gb memory for taking photos or recording videos. Supports SIP and DLNA protocols.



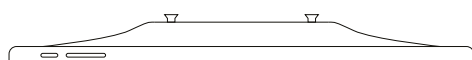
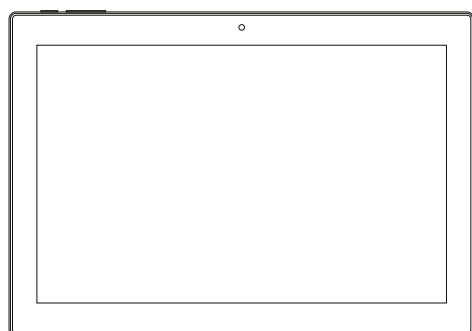
### Module parameters

Parameter name	Value
Camera	HD (1280x720)
Card reader	RFID 125kHz NFC tag Android devices with NFC
IR lighting	1 m
Connection type	Ethernet
Protocols	SIP, DLNA
Power supply	PoE (802.3af), Passive POE 24V
Max current(24V)	150 mA
Case material	Aluminium alloy panel
Protection	IP65
Mounting type	Wall surface mount
Temperature range	-20...+35 °C
Dimensions	194x120x45 mm
Weight	950 g

# LCP10

## WALL-MOUNTED CONTROL PANEL

Wall-mounted control panel.

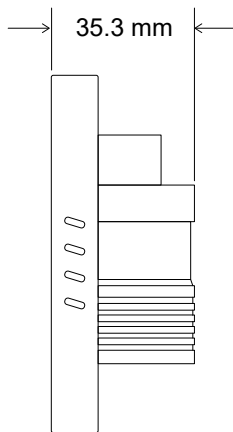
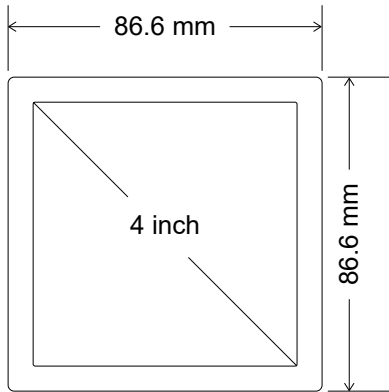


### Tablet parameters

Parameter name	Value
CPU	RK3128 Quad Core 4-Cortex 1.3GHZ
RAM	1GB
Internal memory	8GB
Operation System	Android
Display	10.1 inch Multi points Five point -Touch IPS Touch Screen
Panel	Full HD 10.1"LCD panel
Resolution	1280*800
Luminance	300cdm2
Aspect Ratio	16:9
WiFi	802.11b/g/n
Ethernet	10M/100M Ethernet
Buletooth	+
Card slot	SD,Support up to 32GB
USB Device	Micro USB OTG
USB Hostx3	USB Host 2.0
Power Jack	DC power input
Ethernet POE	RJ45 LAN Port
Earphone	3.5mm earphone
Material	Metal Case
Speaker	1W*2
Camera	2.0M/P,Front camera
Language	Multi-language

# LCP4

## WALL-MOUNTED CONTROL PANEL



### Module parameters

Parameter name	Value
Dimension	86.6mm*86.6mm*35.3mm
Display size	4 inch
CPU	Quad-core cortex-A7 ,1.2Ghz
System	Android 7.1
Resolution	480*480
Touch Panel	5 points capacitive touch panel, IPS
RAM	1G
Rom	8G
WIFI	802.11b/g/n
Bluetooth	BT 4.0
Ethernet	10M/100M
RJ45	Ethernet interface input (RJ-45 cable)
Power suply	AC 110~240V , 50HZ
Microphone	build in
Camera	No camera
Battery	NO
Mount	wall mounted / in wall & embedded
Color	Black
Power consumption	20W
Physical button	Power on/ off
Working temperature	-5..70°C
Language	Multi-language

