LOEQ
LIGHT & SOUND EQUIPMENT

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Larnitech
development and production

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Larnitech

DIN-rail equipment

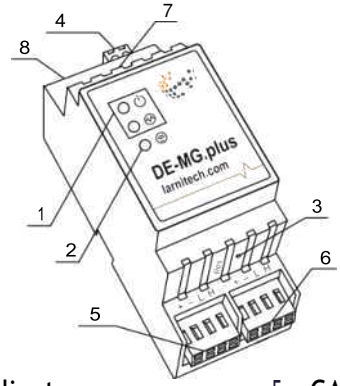
LOEQ
LIGHT & SOUND EQUIPMENT

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



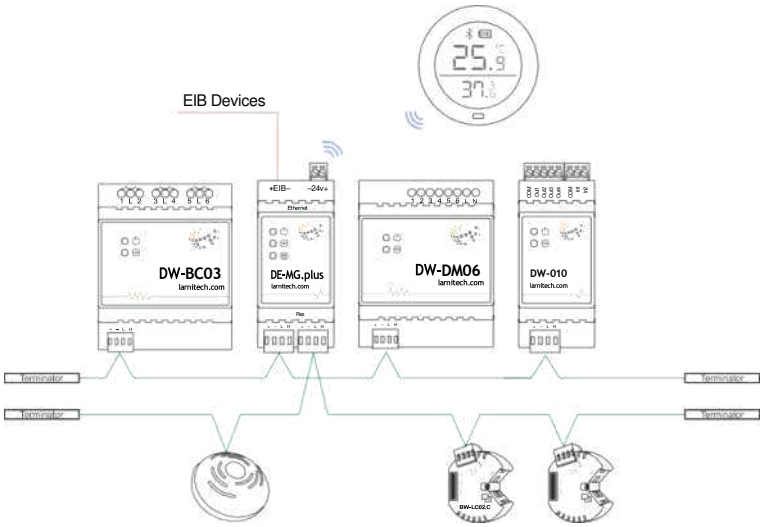
1. Indicators
2. IR Receiver
3. Recovery button
4. Power supply
5. CAN1
6. CAN2
7. Ethernet
8. EiB

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

Connection example



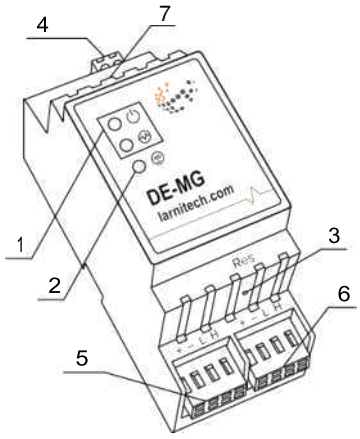
DIN railequipment

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



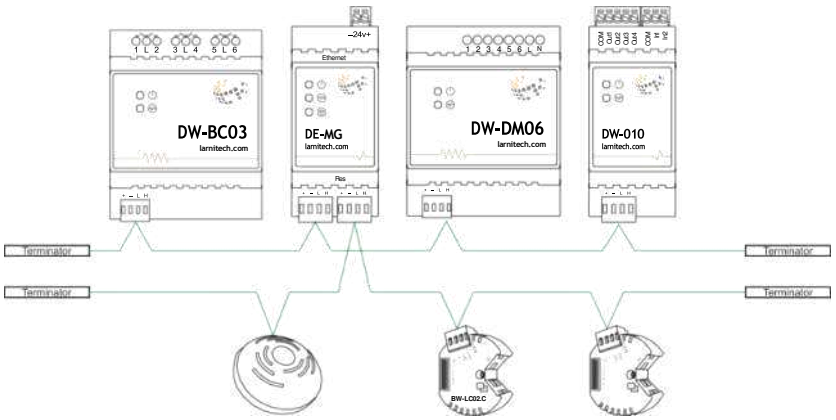
1. Indicators
2. IR Receiver
3. Recovery button
4. Power supply
5. CAN1
6. CAN2
7. Ethernet

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

Connection example

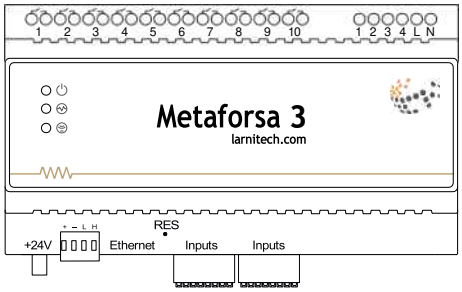


Metaforsa 3 / 3.plus

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.

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
- 28 inputs that support:
  - Buttons
  - LED buttons
  - Switches
  - Reed switches
  - Leak sensors
  - Motion detectors
  - Temperature sensors
  - Led strips
  - 3-4-5 channel rgb strips
  - WS2812B strips
- 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)

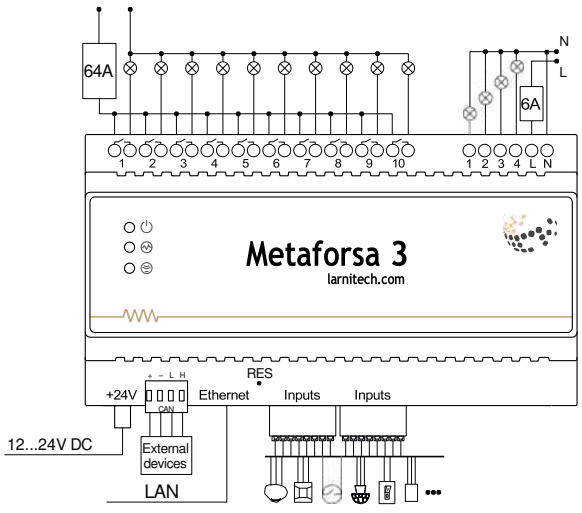


Module parameters

Parameter name	Value
Switching channels quantity	10
Dimming channels quantity	4
Input channels qty	28
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) 99 (for Metaforsa 3.plus)
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

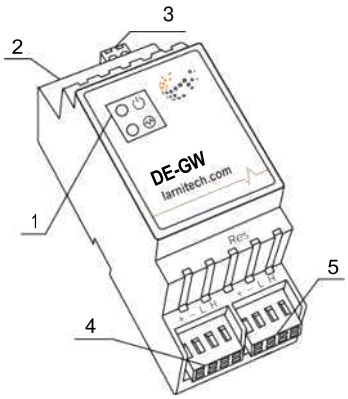
Connection example



DIN railequipment

DE-GW
GATEWAY

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



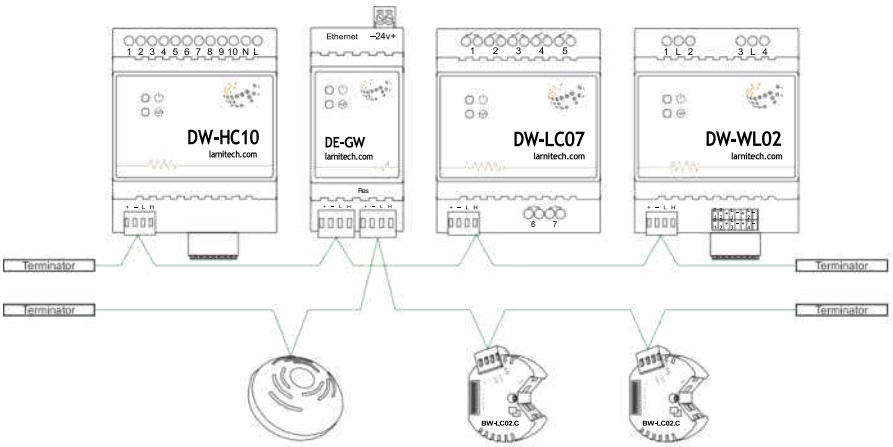
1. Indicators
2. Ethernet
3. Power supply
4. CAN1
5. CAN2

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



DW-LC18
18-CHANNEL ACTUATOR

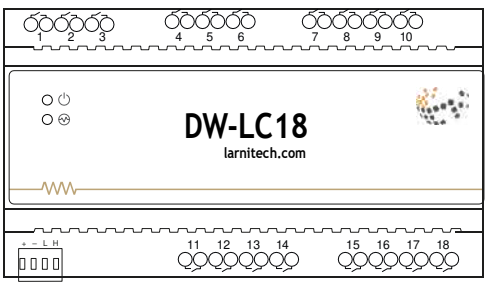
This module is designed For high power AC/DC circuits commutation. Applicable For light, power sockets, For control oF Fan coil units, locks, blinds/gates.

FEATURES

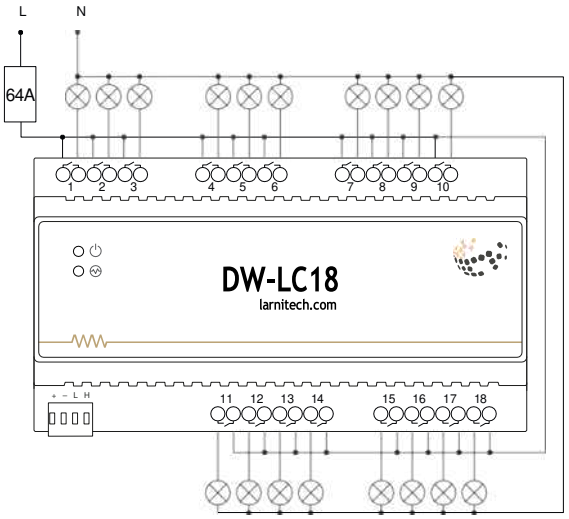
- Control oF a wide range oF devices:
  - Lights
  - NC/NO heating valves
  - Blinds
  - 1 or 2-pole gates
  - 1 or 2-pole valves
  - NC/NO locks
  - Fan coil units
- Relays with AgSnO2 contacts rated For 16A continuous load and 120A 20ms inrush current
- Low noise relay switching
- Built-in logical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

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 multiple-conductor cable tipped multiple-conductor cable	 0.5 … 4mm^2 0.5 … 4mm^2 0.5 … 2.5mm^2
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

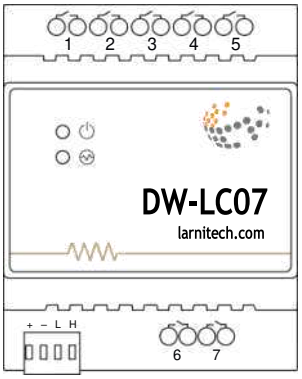


DW-LC07
7-CHANNEL ACTUATOR

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.

FEATURES

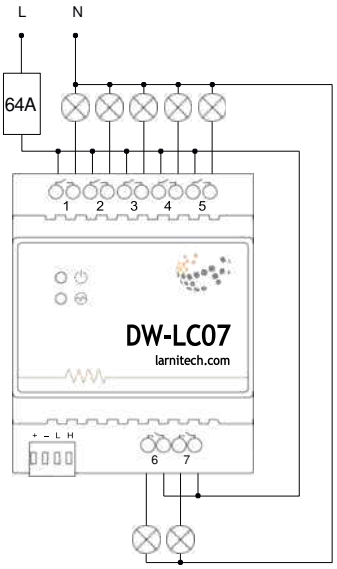
- Control oF a wide range oF devices:
  - Lights
  - NC/NO heating valves
  - Blinds
  - 1 or 2-pole gates
  - 1 or 2-pole valves
  - NC/NO locks
  - Fan coil units
- Relays with AgSnO2 contacts rated For 16A continuous load and 120A 20ms inrush current
- Low noise relay switching
- Built-in logical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



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 multiple-conductor cable tipped multiple-conductor cable	 0.5 … 4mm² 0.5 … 4mm² 0.5 … 2.5mm²
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



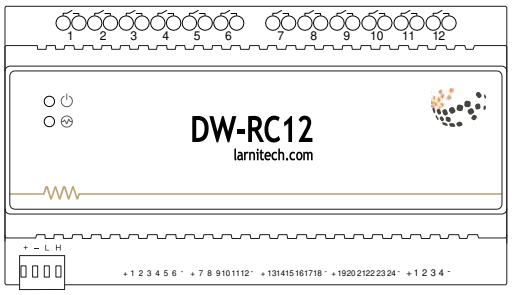
DW-RC12

12-CHANNEL EXTENSION MODULE

This module has 12 outputs For connecting loads and 24 inputs For connecting various sensors/buttons.

FEATURES

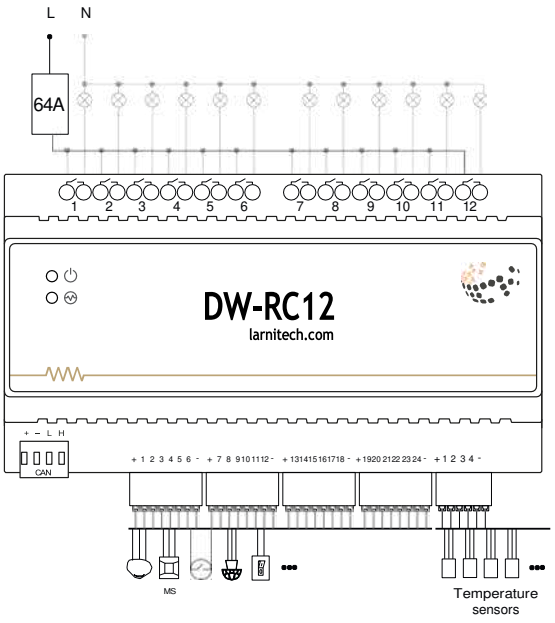
- 12 universal outputs support:
  - Lights
  - NC/NO heating valves
  - Blinds
  - 1 or 2-pole gates
  - 1 or 2-pole valves
  - NC/NO locks
  - Fan coil units
- 24 Discreet inputs that support:
  - Buttons
  - Switches
  - Reed switches
  - Leak sensors
  - Motion detectors
- 4 digital inputs For up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



Module parameters

Parameter name	Value
Output channels qty	12
Digital line maximum length	30 m
Discrete input channels qty	24
Digital input channels qty	4
Input voltage	0-250V
Current type	AC/DC
Max load per channel	16A
Power supply	20.0 … 27.5 V DC from CAN
Max current(24V)	260 mA
Bus type	CAN
Equipment installation type	DIN rail (EN 60715)
Case material	ABS
Protection	IP40
Temperature range	-10 … +50 °C
Size	9U, 156x110x58 mm
Weight	400 g

Connection example



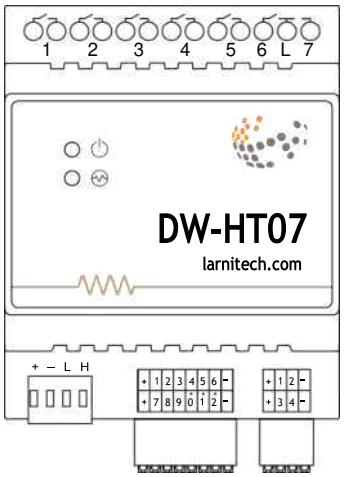
DW-HT07

7-CHANNEL EXTENSION MODULE

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

FEATURES

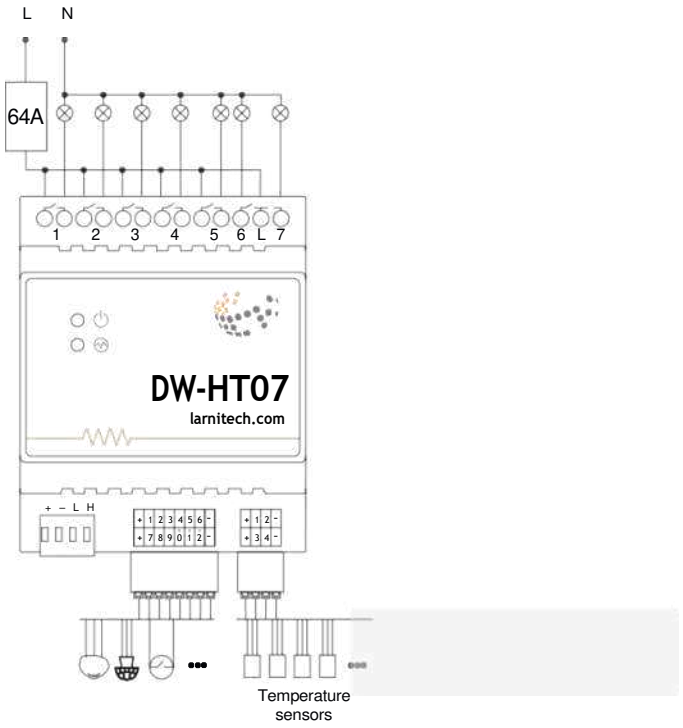
- 7 universal outputs support:
  - Lights
  - NC/NO heating valves
  - Blinds
  - 1 or 2-pole gates
  - 1 or 2-pole valves
  - NC/NO locks
  - Fan coil units
- 12 Discreet inputs that support:
  - Buttons
  - Switches
  - Reed switches
  - Leak sensors
  - Motion detectors
- 4 digital inputs For up to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



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



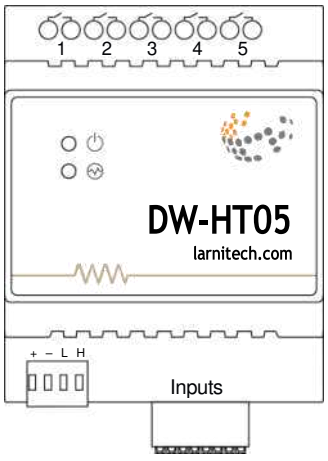
DIN railequipment

DW-HT05
5-CHANNEL MODULE

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

FEATURES

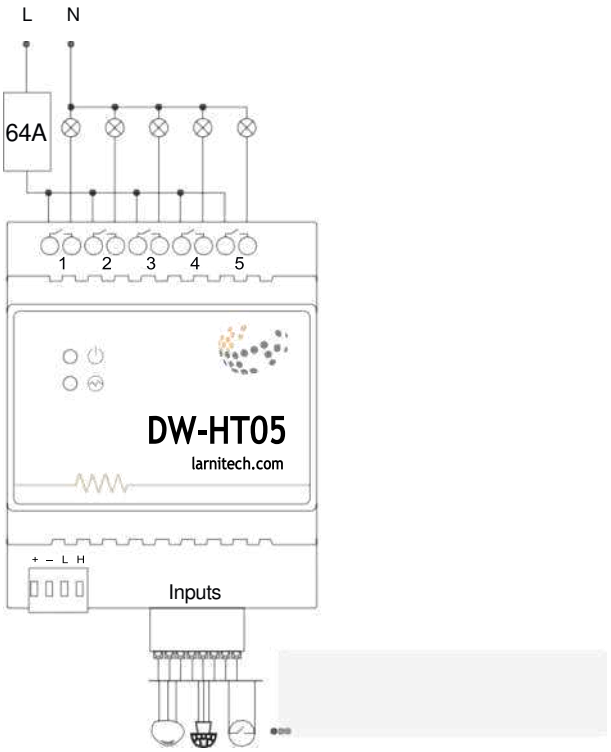
- 5 universal outputs support:
  - Lights
  - NC/NO heating valves
  - Blinds
  - 1 or 2-pole gates
  - 1 or 2-pole valves
  - NC/NO locks
  - Fan coil units
- 12 Discreet inputs that support:
  - Buttons
  - Switches
  - Reed switches
  - Leak sensors
  - Motion detectors



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

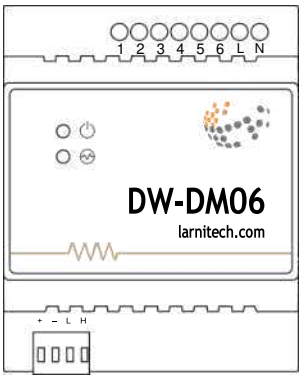


DW-DM06
6-CHANNEL DIMMER

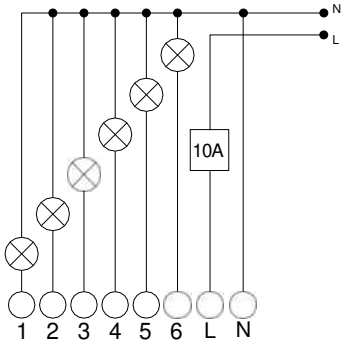
This module is designed For smooth adjustment oF brightness oF lighting devices (non reactive load). The dimmer type is MOSFET with trailing edge dimming.

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



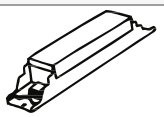
Connection example



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

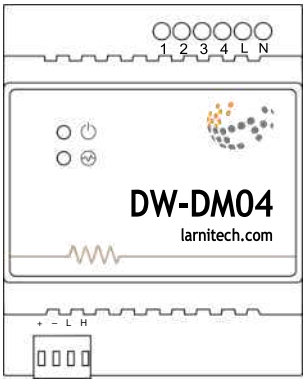
DIN railequipment

DW-DM04
4-CHANNEL DIMMER

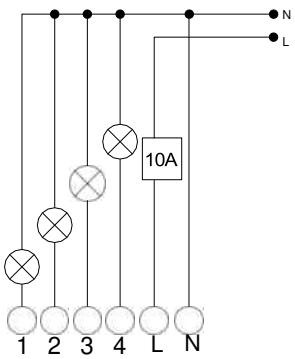
This module is designed For smooth adjustment oF brightness oF lighting devices (non reactive load). The dimmer type is MOSFET with trailing edge dimming.

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



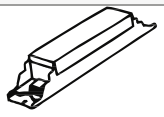
Connection of 4 dimmer lamps



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

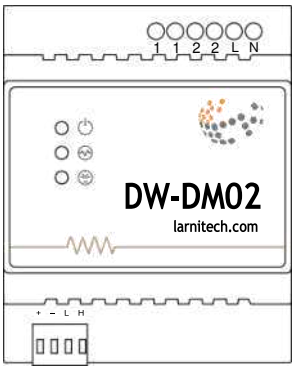
Load type		Value
	Conventional incandescent lamps	0-500W
	Halogen light sources	0-500W
	LED lamps with dimming support	0-500W
	Energy saving lamps with dimming support	0-500W
	Electronic ballasts with dimming support	0-500W

DW-DM02
2-CHANNEL DIMMER

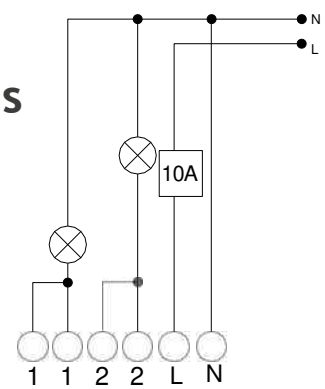
This module is designed For smooth adjustment oF brightness oF lighting devices (non reactive load). The dimmer type is MOSFET with trailing edge dimming.

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



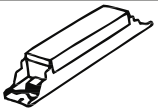
Connection of 2 dimmer lamp s



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

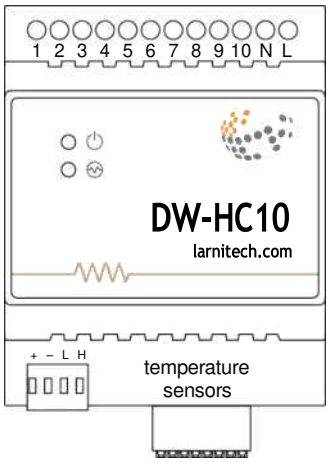
DW-HC10

10-CHANNEL HEATING CONTROLLER

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.

FEATURES

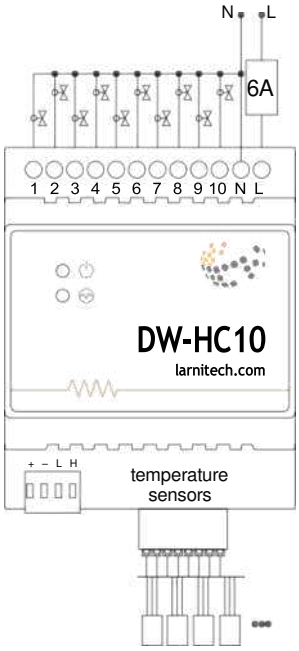
- 10 outputs For NO/NC/PWM valves
- 12 inputs For digital and NTC temperature sensors
- Can to use temperature data From other modules
- 10 independed heating zones with weekly schedule
- Up to 20 heating proFiles
- Built-in real time clock



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



DW-RGB03

9-CHANNEL LED CONTROLLER

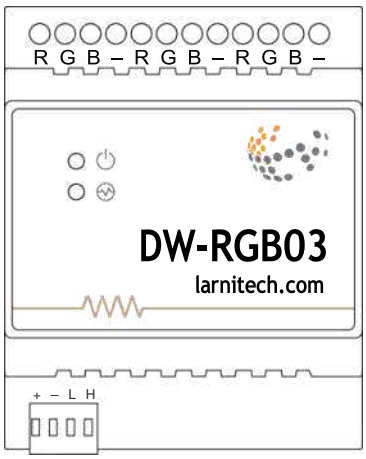
The module allows connecting RGB and monochrome LED strips.

FEATURES

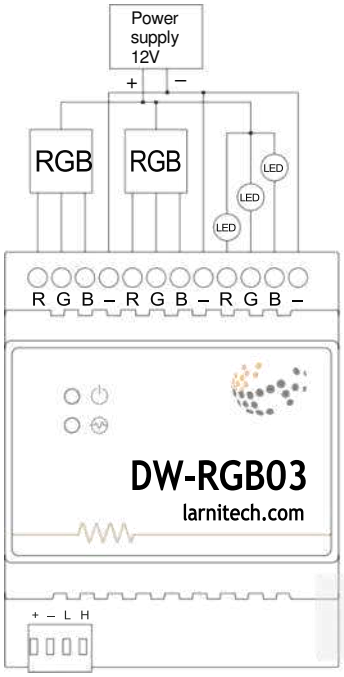
- Supported load types:
  - 3x RGB
  - 2x RGBW + 1 monochrome channels
  - 1x RGBWW + 1x RGB or 4x monochrome channels
  - 9x monochrome channels

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



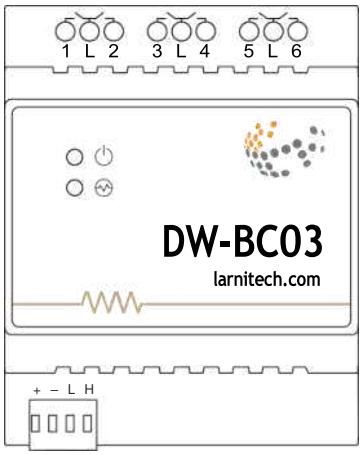
DW-BC03

3-CHANNEL MODULE FOR BLINDS MOTOR CONTROL

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

FEATURES

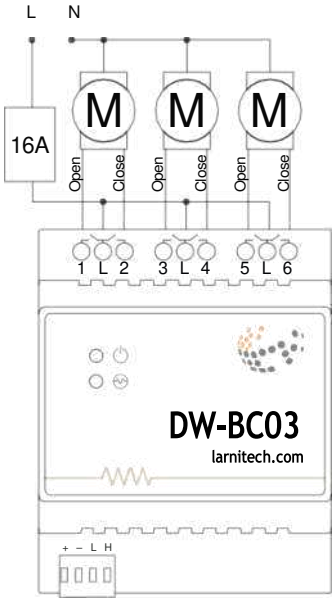
- Supported load types:
  - curtains with force/low-current control
  - 1 / 2 pole valves
- Overcurrent protection
- Built-in current sensor



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 multiple-conductor cable tipped multiple-conductor cable	 0.5 … 4mm² 0.5 … 4mm² 0.5 … 2.5mm²
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

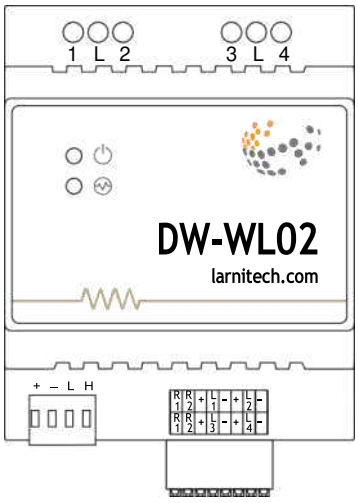


DW-WL02
WATER LEAKAGE PROTECTION MODULE

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

FEATURES

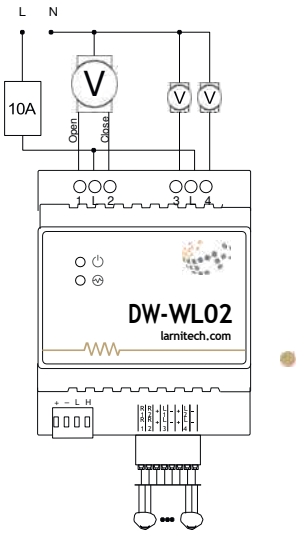
- Supports 1p/2p valves
- Valve Feedback reed switch
- Support up to 16 leakage sensors
- Sensor detection and diagnostics
- Sensor sensitivity adjustment



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

Connection of valves and sensors



DIN railequipment

DW-IO

14-CHANNEL INPUT/ OUTPUT ADAPTER

This module can support up to 14 buttons, reed switches, LED buttons, leak sensors, motion sensors, temperature sensors, led strips, rgb strips, WS2812B strips.

FEATURES

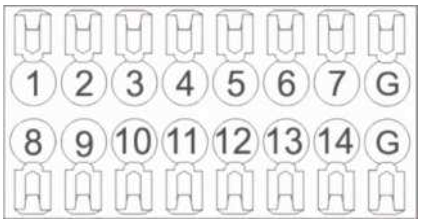
- 14 universal input/output channels support:
  - Buttons
  - Reed switches
  - LED buttons
  - Leak sensors
  - Motion sensors
  - Temperature sensors
  - Led strips
  - 3-4-5 channel rgb strips
  - WS2812B strips

Module parameters

Parameter name	Value
Input/output channels qty	14
Backlight voltage	3V
Max load per channel	5mA*
Power supply	11.5 … 27.5 V DC from CAN
Max current(24V)	30 mA
Push-button/reed switches line recommended 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	2U, 36x102x58 mm
Weight	75g

* Output channels should only be connected using amplifier which uses 5V PWM signal from DW-IO output as input

Connector



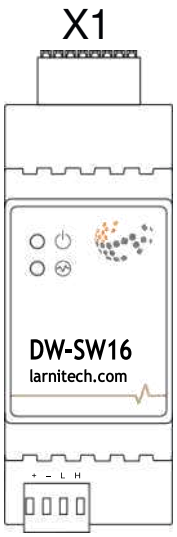
DW-SW16

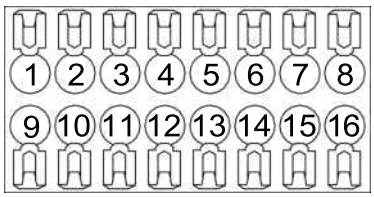
16-CHANNEL ADAPTER FOR BUTTONS

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

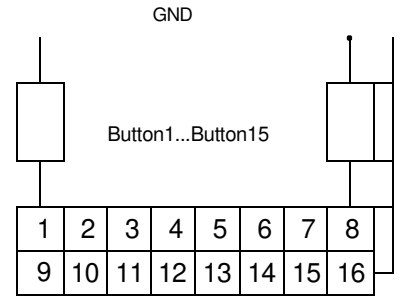


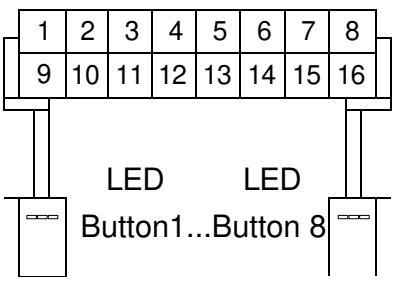


Module parameters

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





DW-RS485

RS485 INTERFACE ADAPTER

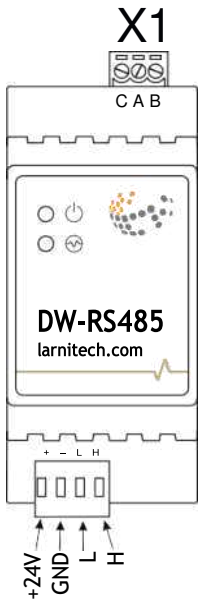
This module is designed For interFace adjustment between the devices which have the RS485 interFace and the Smart Home system. This module has an internal 120Ω terminator resistor.

Module parameters

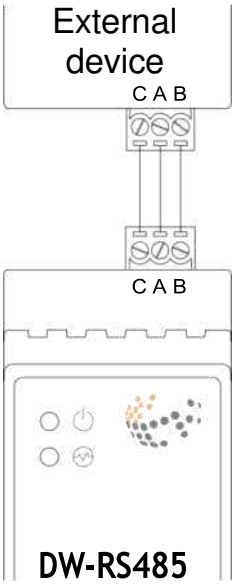
Parameter name	Value
RS485 ports qty	1
Power supply	11.5 … 27.5 V DC from CAN
Max current(24V)	40mA
Data transfer speed	1200-115200 b/s
Bus type	CAN (4-wire)
Equipment installation type	DIN-rail (EN 60715)
Case material	ABS
Protection	IP40
Temperature range	-10 … +50 °C
Size	2U, 36x90x58 mm
Weight	130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

FEATURES

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



Connection example



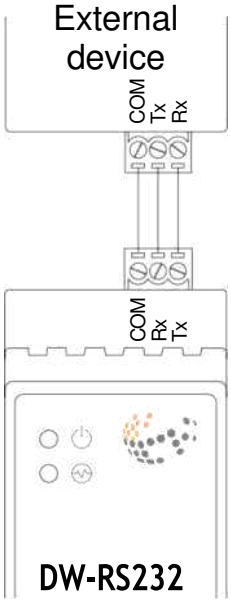
DW-RS232
RS232 INTERFACE ADAPTER

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

Module parameters

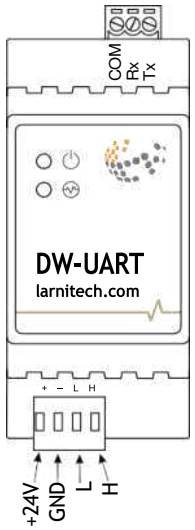
Parameter name	Value
RS232 ports qty	1
Power supply	11.5 … 27.5 V DC from CAN
Max current(24V)	40mA
Data transfer speed	1200-115200 b/s
Bus type	CAN (4-wire)
Equipment installation type	DIN-rail (EN 60715)
Case material	ABS
Protection	IP40
Temperature range	-10 … +50 °C
Size	2U, 36x90x58 mm
Weight	130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

Connection example



DW-UART
SERIAL INTERFACE ADAPTER

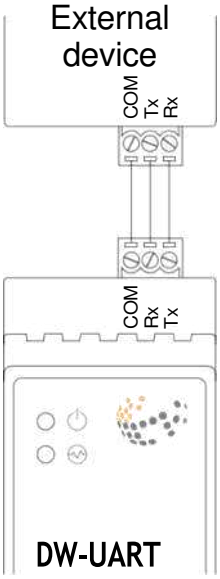
This module is designed For interFace adjustment between the devices which have the UART interFace (TTL levels) and the Smart Home system.



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



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.

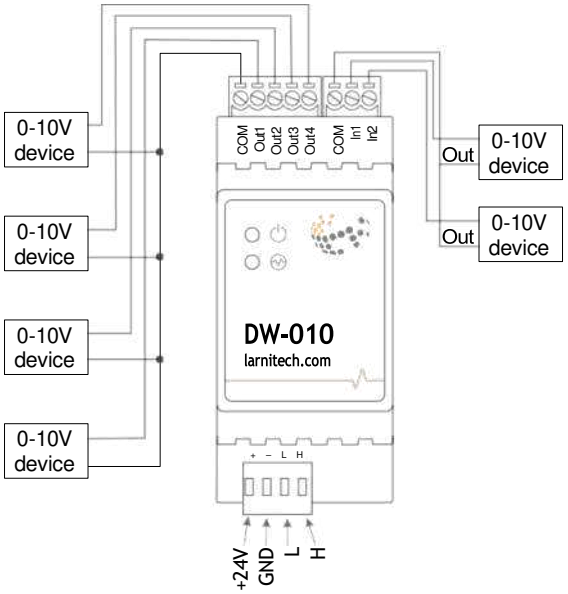
FEATURES

- 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



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

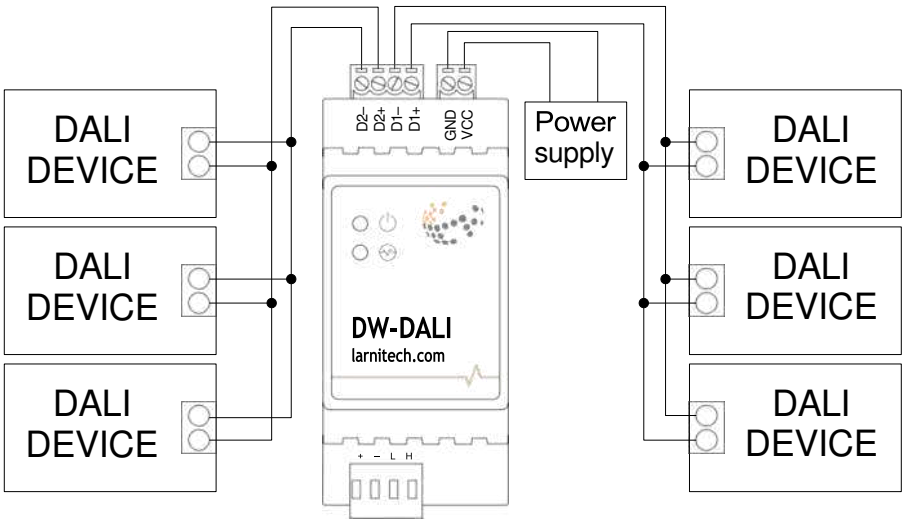
- Automatic line scanning For new devices
- Built-in bus power injection
- Dali device conFiguration

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



DIN railequipment

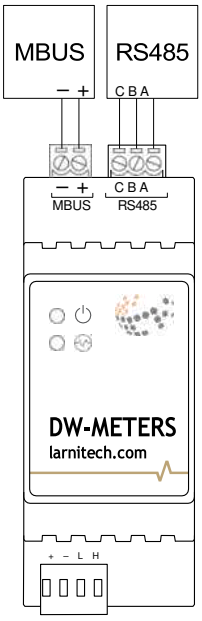
DW-METERS
AMR (AUTOMATIC METER READING) MODULE

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



Larnitech

Pattress box equipment

LOEQ
LIGHT & SOUND EQUIPMENT

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.

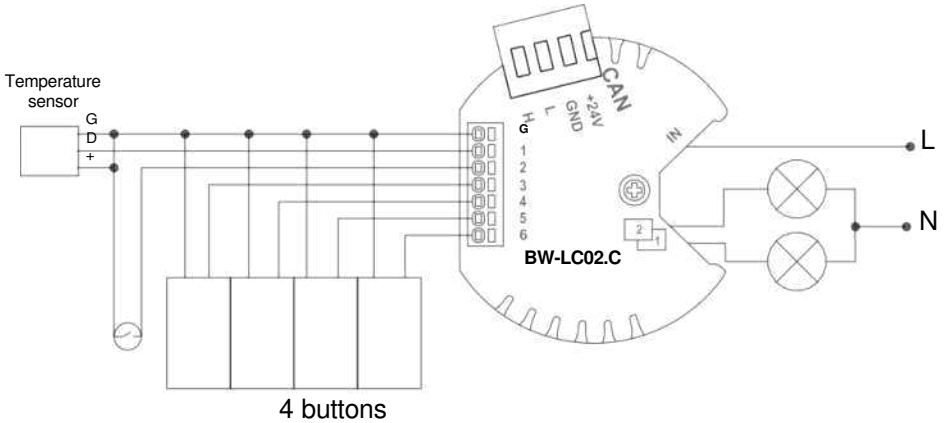
FEATURES

- 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 LED Buttons	6 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 multiple-conductor cable tipped multiple-conductor cable	 0.5 … 4 mm² 0.5 … 4 mm² 0.5 … 2.5 mm²
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



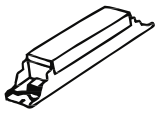
BW-DM
DIMMER

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.

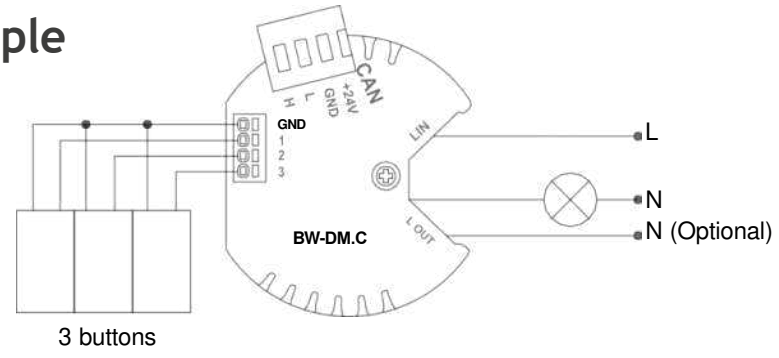
Module parameters

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



3 buttons

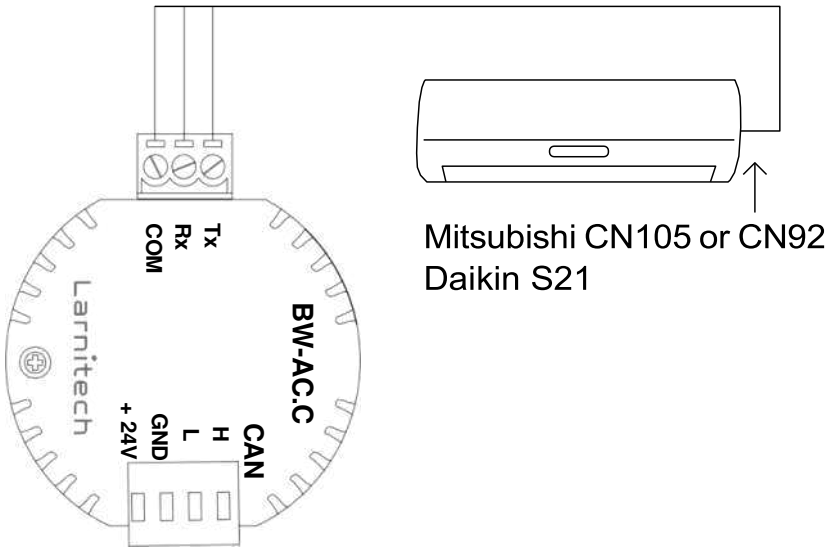
BW-AC
AC ADAPTER

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



BW-RGB

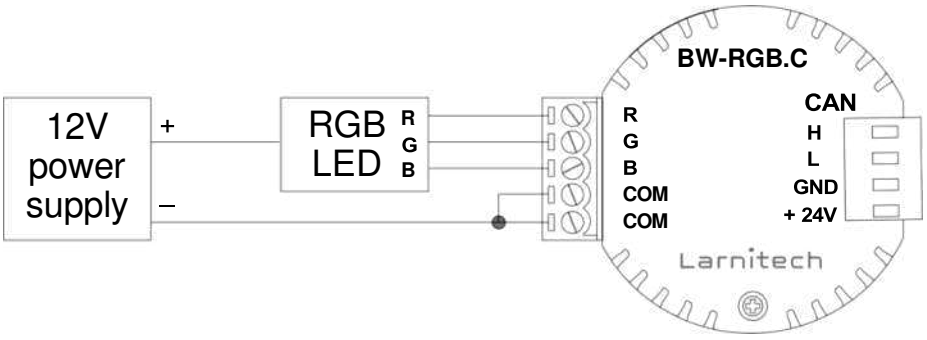
3-CHANNEL LED CONTROLLER

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



BW-SW06

6-CHANNEL INPUT MODULE

This module is used to connect buttons/reed switches.

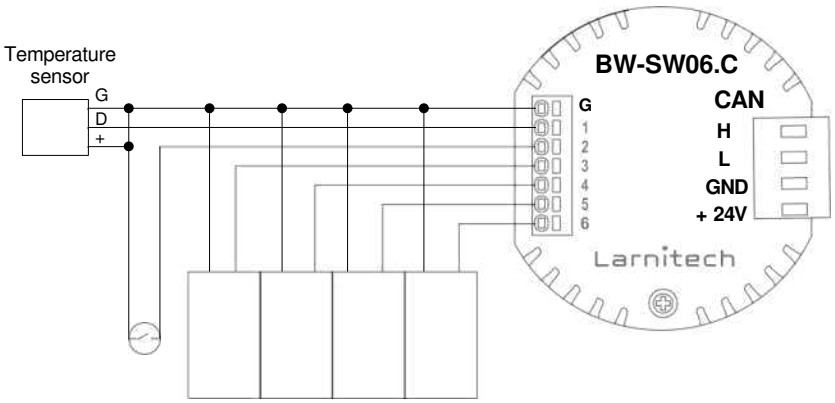
FEATURES

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

Module parameters

Parameter name	Value
Input channels qty	6
Buttons LED Buttons	6 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

Connection example



4 buttons

BW-SW24V

24V BUTTONS INPUT MODULE

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

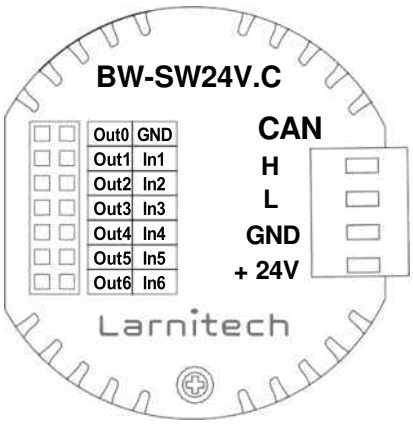
FEATURES

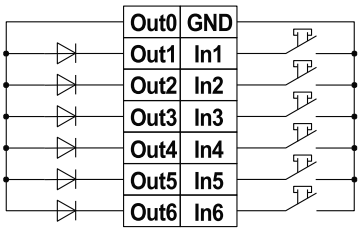
- 6 inputs
- Supports both common anode and cathode LEDs

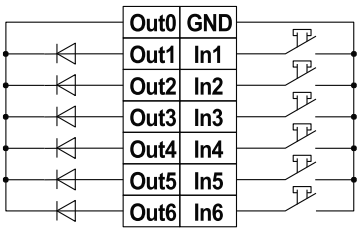
Module parameters

Parameter name	Value
Output channels qty	6
Input channels qty	6
Buttons LED Buttons	6 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







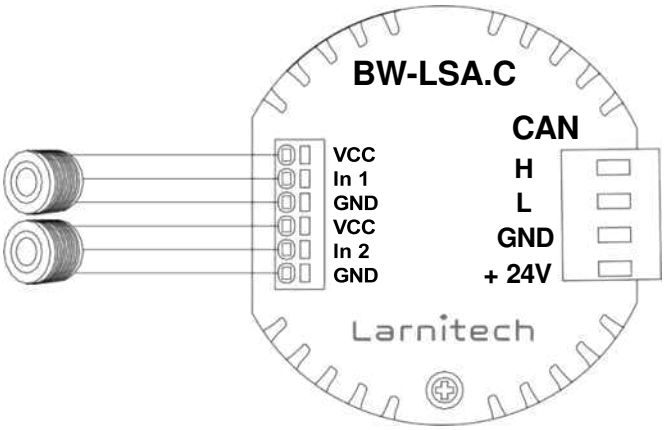
BW-LSA
LEAKAGE SENSOR ADAPTER

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

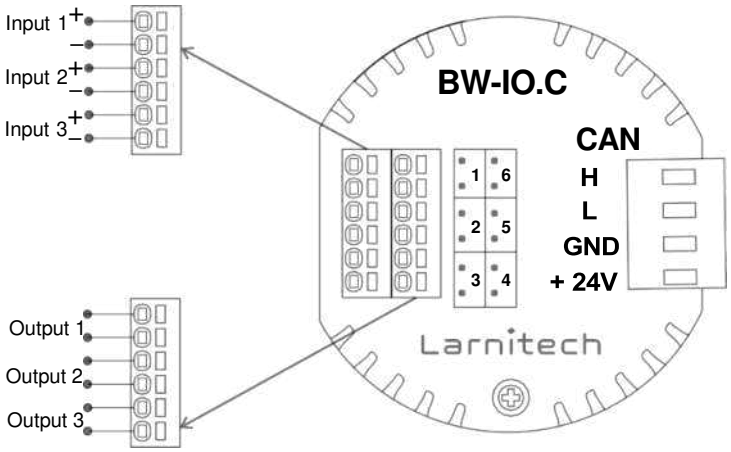
6-CHANNEL I/O MODULE

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

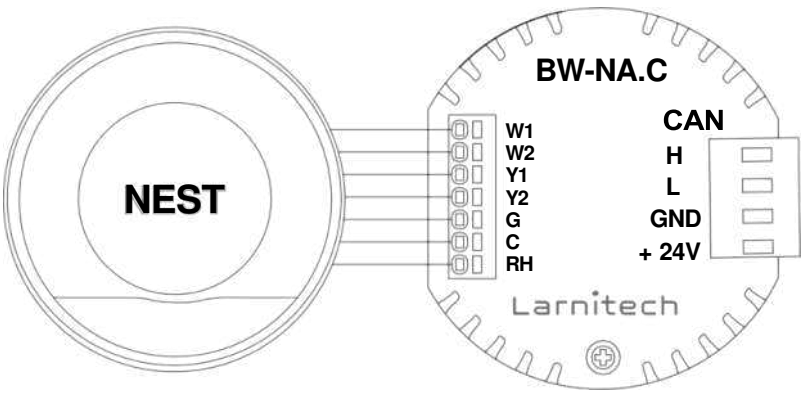
BW-NA
NEST ADAPTER

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

Module parameters

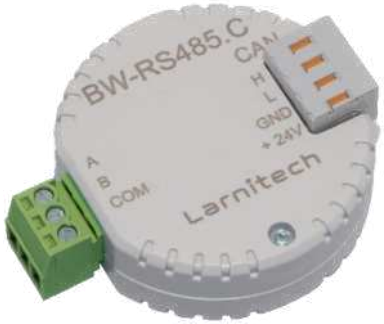
Parameter name	Value
Input channels qty	5
Output	24 V AC
Power supply	23 ... 25 V DC from CAN
Max current(24V)	70 mA
Bus type	CAN (4-wire)
Mounting	Free
Case material	ABS
Protection	IP40
Temperature range	-10 ... +50 °C
Size	45x42x14 mm
Weight	15 g

Connection example



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.



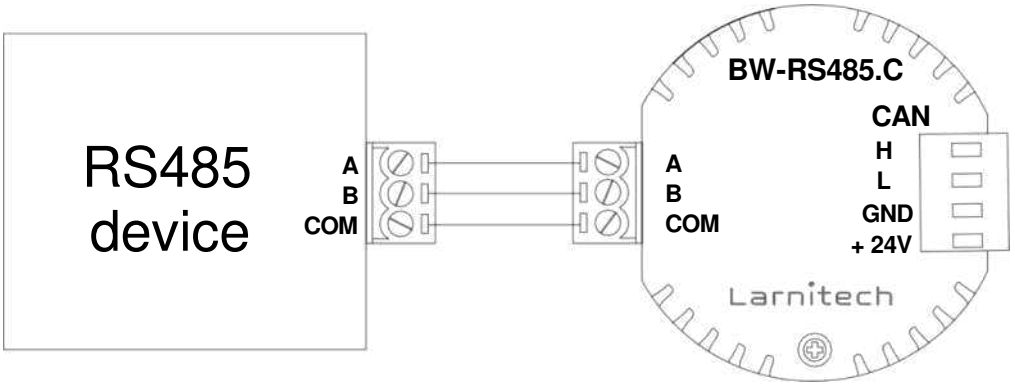
Module parameters

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



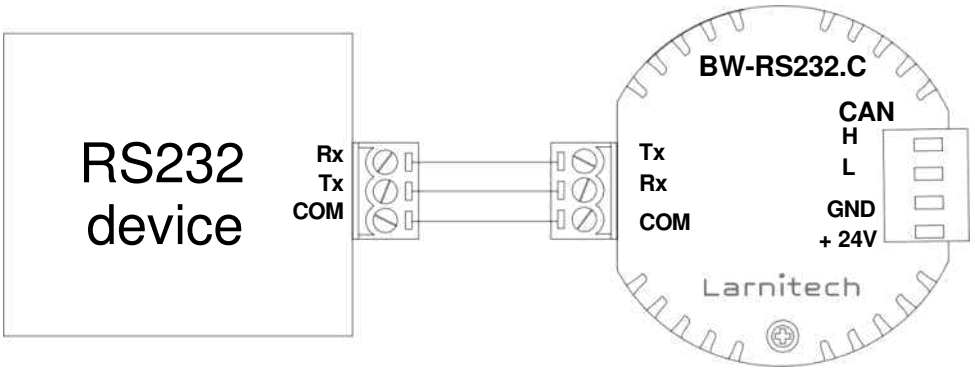
BW-RS232
RS232 INTERFACE ADAPTER

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



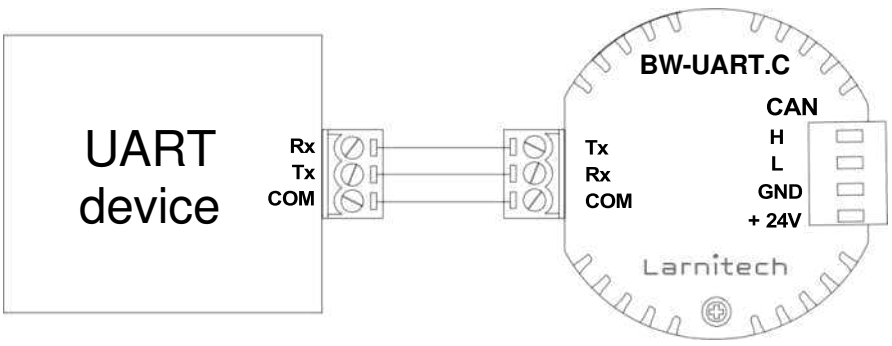
BW-UART
SERIAL PORT ADAPTER

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



BW-010

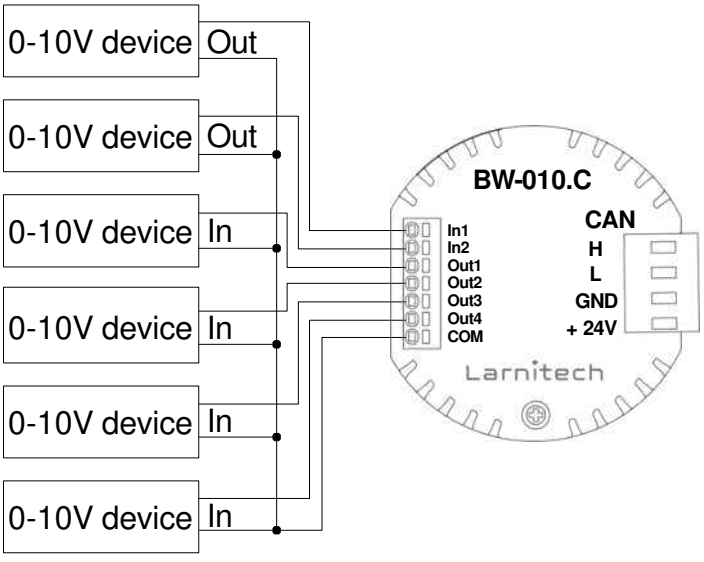
4-CHANNEL MODULE FOR DEVICES WITH 0-10V INPUT

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



BT-CAN

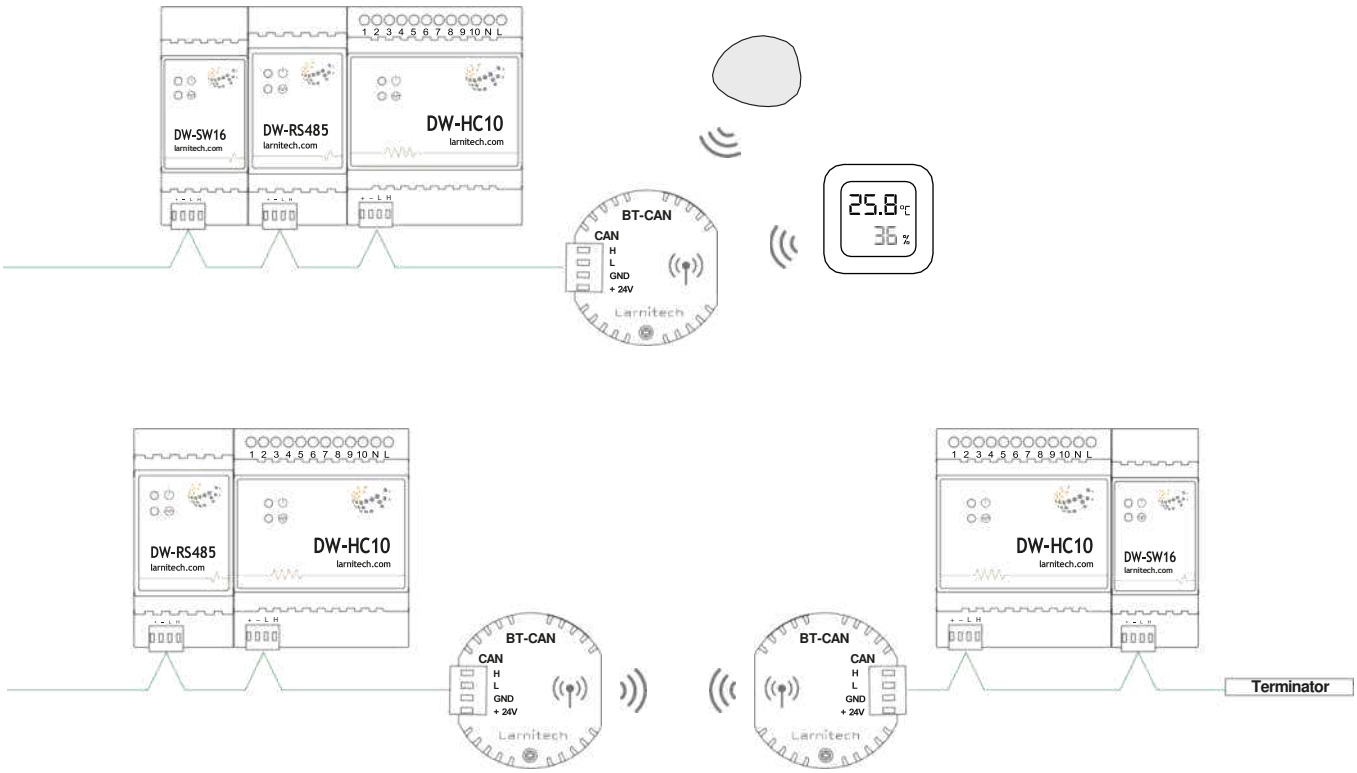
CAN to Bluetooth adapter

This module is used to connect to remote devices via Bluetooth.

Module parameters

Parameter name	Value
Power supply	11.5 … 27.5 V DC from CAN or PS
Max current(24V)	30 mA
Max BT distance	220 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



Larnitech

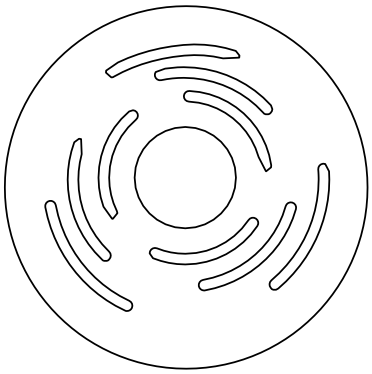
Sensors

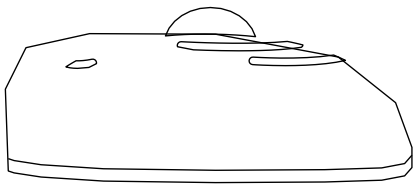
LOEQ
LIGHT & SOUND EQUIPMENT

CW-HTMLI-II / CW-CO2

6 IN 1 SENSOR

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





Module parameters

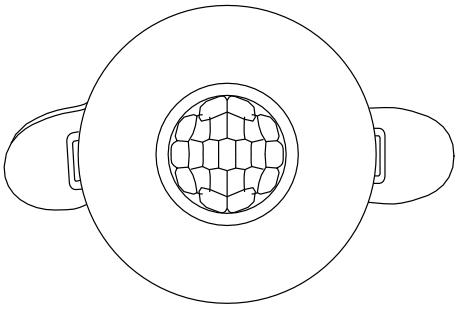
Parameter name	Value
Control parameters	Humidity, lighting, movement, temperature, CO2 (CW-CO2 only)
Angle of vision IR	360°
Power supply	11.5 … 27.5 V DC from CAN
Max current(24V)	100 mA
Max IR distance	3 meters*
Bus type	CAN (4-wire)
Mounting	Wall, celling
Case material	ABS
Protection	IP40
Temperature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

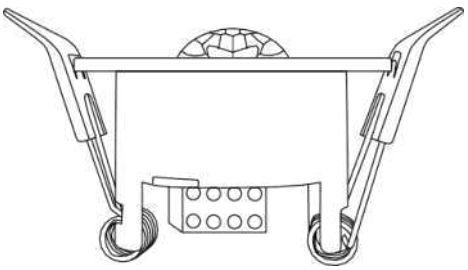
* Depends on many factors, such as the sensitivity of the IR receiver, the reflectivity of surfaces etc. Recommended distance up to 3 meters

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

MOTION SENSOR

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



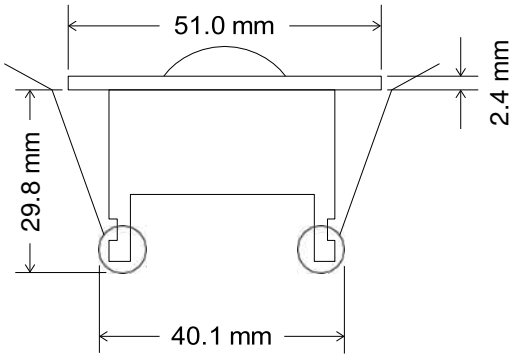


Module parameters

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



CW-MLI / CW-M
MICRO-SIZED 3 IN 1 SENSOR

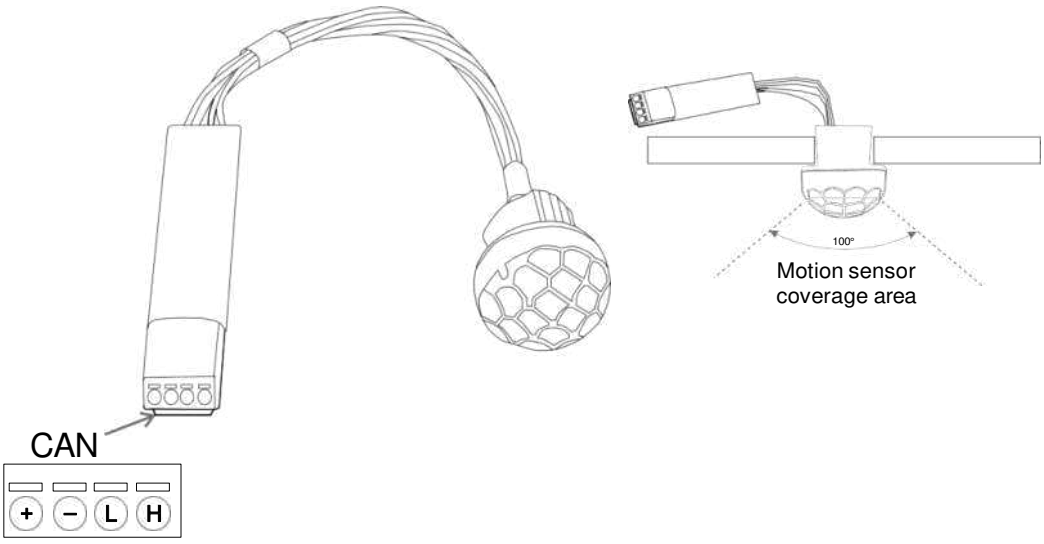
This module contains motion, lighting (CW-MLI only) sensors and an IR transmitter (CW-MLI only).

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

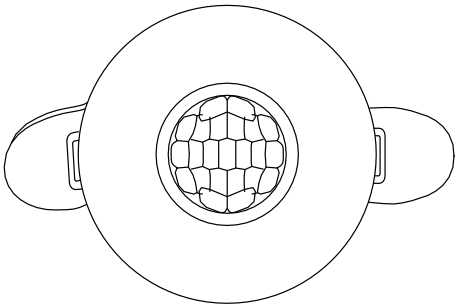
Connection example

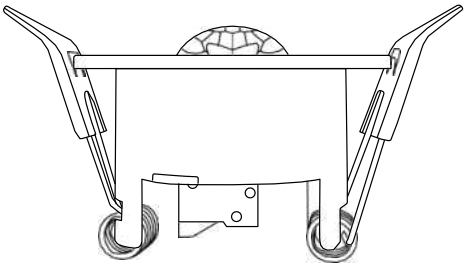


CW-MSD

MICRO-SIZED MOTION SENSOR

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

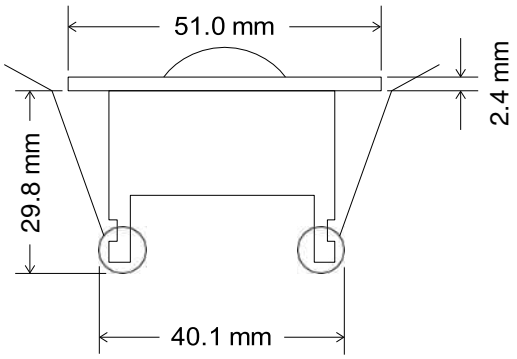




Module parameters

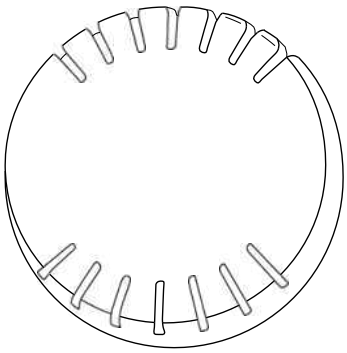
Parameter name	Value
Control parameters	Motion
Angle of motion	100°
Power supply	5 … 13 V DC
Max current(13V)	1 mA
Max detection distance	10m
Bus type	CAN (4-wire)
Compatible with	Metaforsa series devices
Equipment installation type	Cell
Case material	ABS
Protection	IP40
Temperature range	-10 … +50 °C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

Module dimentions



WW-HTL
3 IN 1 SENSOR

This module contains temperature, lighting, and humidity sensors.

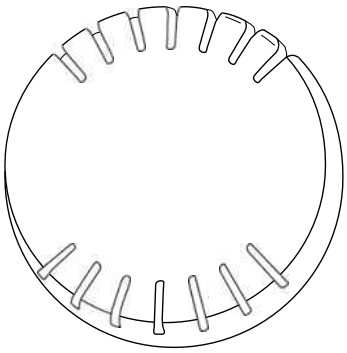


Module parameters

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

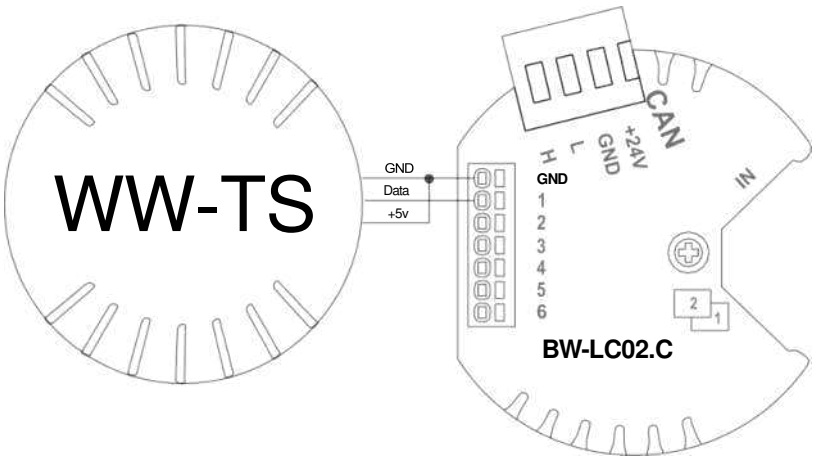
It is a temperature sensor For DW-HCxx module.



Module parameters

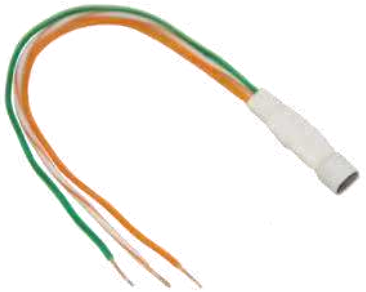
Parameter name	Value
Control parameters	Temperature
Temperature measuring range	-20 … +60˚C
Power supply	5 V DC
Max current	5 mA
Bus type	One Wire
Compatible with	DW-HCxx BW-LC/DM/SW DW-HTO7 Metaforsa devices
Mounting	Wall
Case material	ABS
Protection	IP40
Size	40x40x12 mm
Weight	35 g

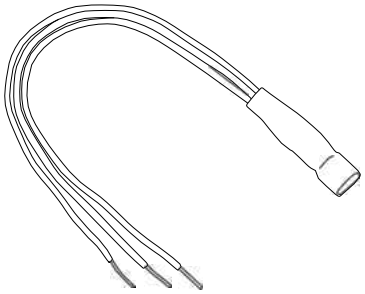
Connection example



FW-TS
TEMPERATURE SENSOR

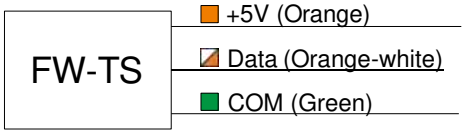
This is an open-Frame temperature sensor For DW-HCxx module.



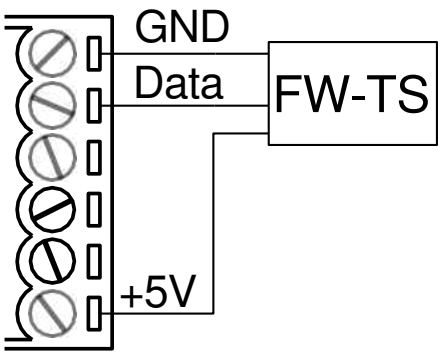


Module parameters

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-HTO7 Metaforsa devices
Mounting	Free
Protection	IP40
Size	5x4x8 mm
Weight	15 g



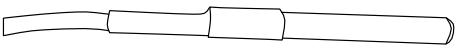
Connection example



FW-FT

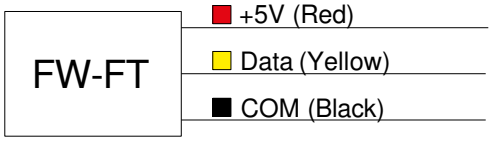
UNDERFLOOR HEATING TEMPERATURE SENSOR

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

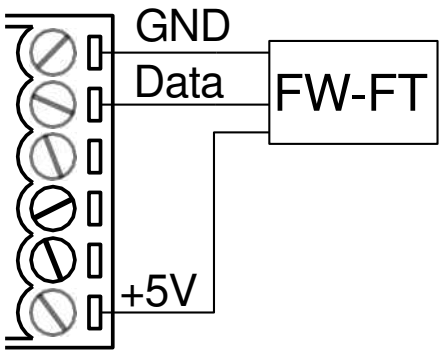


Module parameters

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-HTO7 Metaforsa 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

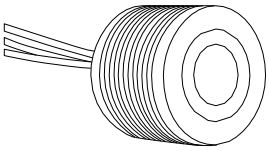


Connection example



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.

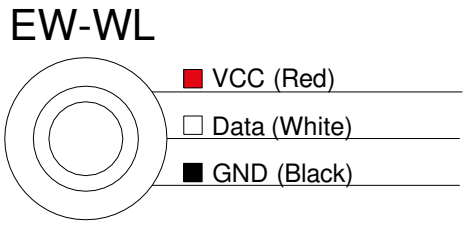


Module parameters

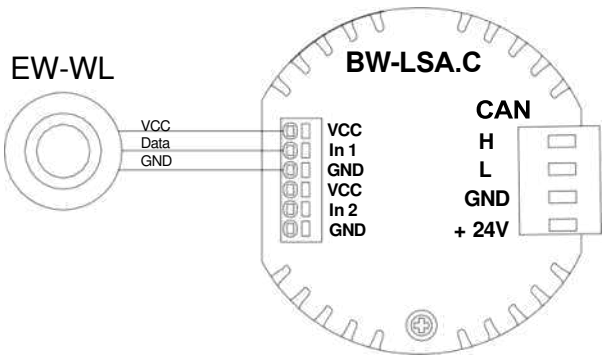
Parameter name	Value
Power supply	9...12 V DC
Max current	20 mA
Compatible with	Metaforsa devices Metaforsa cloud devices DW-WL02/HTxx BW-LSA
Mounting	Built into the floor
Case material	stainless steel
Protection	IP65
Temperature range	-10 ... +50 °C
Size	18x18x20 mm
Weight	20 g

FEATURES

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

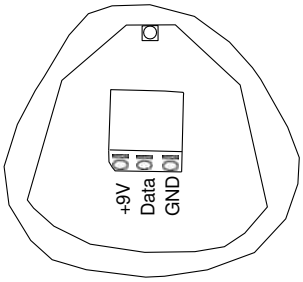


Connection example



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.



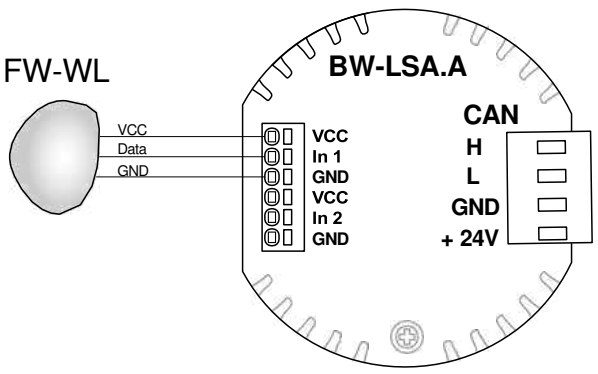
Module parameters

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

FEATURES

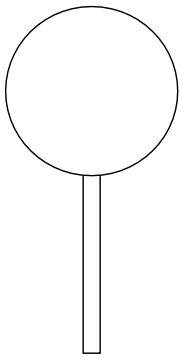
- Sensor presence detection
- Customizing the indication colors
- Adjusting the sensor sensitivity
- Connections oF several sensors to one bus

Connection example



WW-WL
WALL LEAKAGE SENSOR

The sensor is placed on the wall. Used together with DW-WL02 or BW-LSA modules.



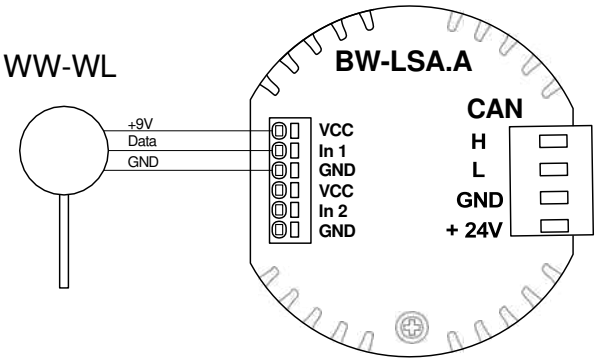
Module parameters

Parameter name	Value
Power supply	9-12 V DC
Max current(24V)	20 mA
Compatible with	Metaforsa devices DW-WL02/HTxx BW-LSA
Equipment installation type	Free
Case material	ABS
Protection	IP64
Temperature range	-10 ... +50 °C
Size	57x47x22 mm
Weight	35g

FEATURES

- Sensor presence detection
- Adjusting the sensor sensitivity
- Connections oF several sensors to one bus

Connection example



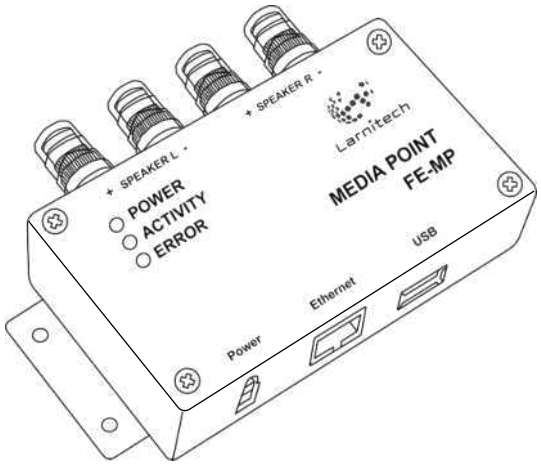
Larnitech

Multiroom

LOEQ
LIGHT & SOUND EQUIPMENT

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.

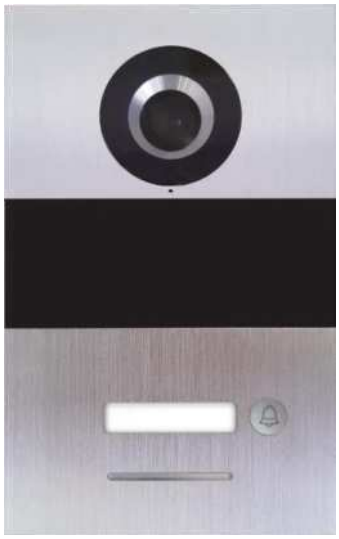


Module parameters

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.nfc
VIDEO INTERCOM

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



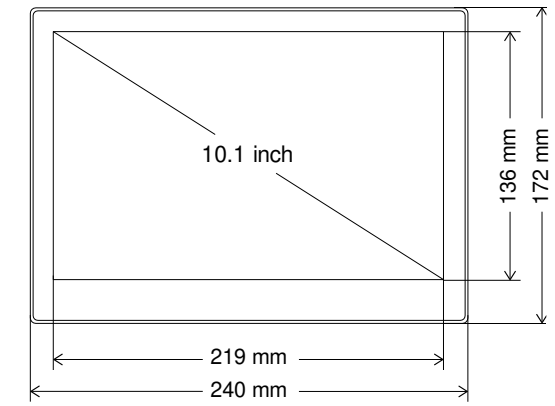
Module parameters

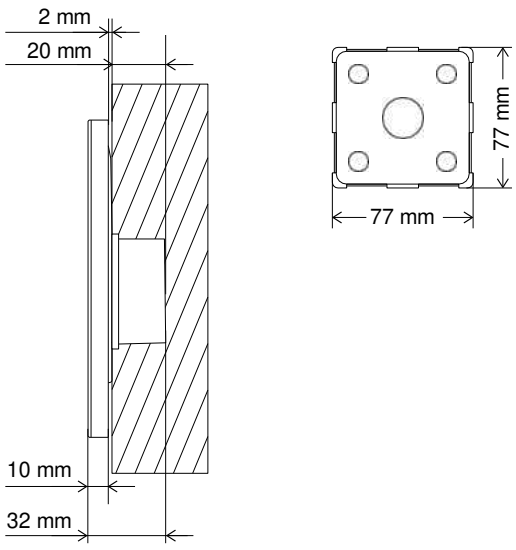
Parameter name	Value
Camera	Full HD (1920×1080)
Card reader	RFID 125kHz NFC tag Android devices with NFC
IR lighting	1 m
Connection type	Ethernet
Protocols	SIP, DLNA
Power supply	PoE (802.3af), Passive POE 24V
Max current(24V)	150 mA
Case material	Aluminium alloy panel
Protection	IP65
Mounting type	Wall surface mount
Temperature range	-20...+35 °C
Dimensions	194x120x45 mm
Weight	950 g

LCP10

WALL-MOUNTED CONTROL PANEL

Wall-mounted control panel.



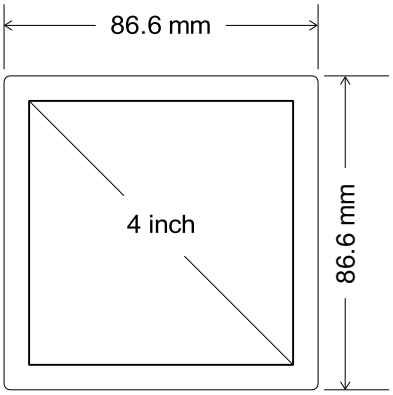


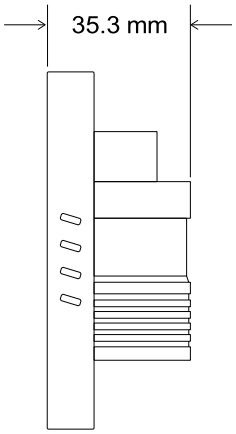
Tablet parameters

Parameter name	Value
CPU	RK3566 Quad-Core ARM Cortex-A55 1.8GHz
RAM	2G
Internal memory	32G
Operation System	Android 11
Display	10.1" inch Touch IPS Touch Screen
Panel	Full HD 10.1" LCD panel
Resolution	1280*800
Luminance	500cdm2
Aspect Ratio	16:9
WiFi	802.11b/g/n
Ethernet	10M/100M Ethernet
Bluetooth	4.0
USB Device	Type C
Power Jack	DC power 12V
Ethernet POE	802.3af
Material	Metal Case
Speaker	2W*2
Weight	1.5kg
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 capactive 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

LOEQ

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