

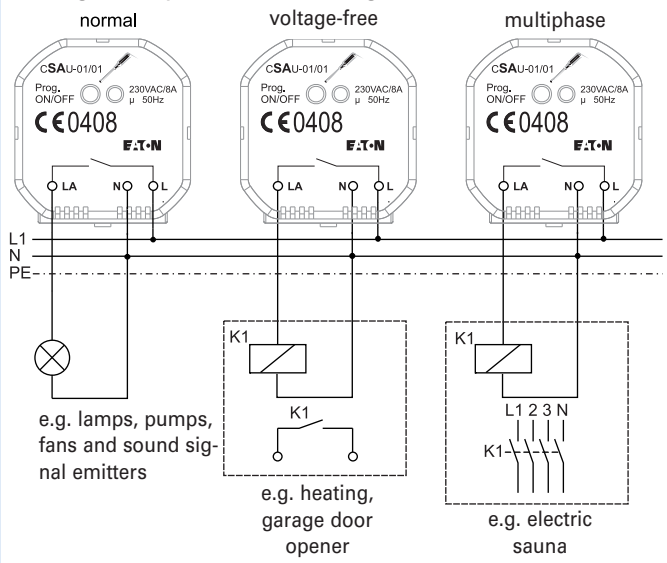
Technical Specifications

EATON RF System

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Installation	Page xx
Functions	Page xx

EATON RF system

Wiring Examples for Switching Actuator CSAU-01/01



Switching fluorescent lamps with a CSAU-01/01 actuator

SA cycles	Total capacitor value
55000	25μF
26000	55μF
14000	90μF
8000	100μF
7000	130μF

The numbers of SA cycles specified are approximate values and may vary depending on the local conditions prevailing in each case. The total capacitor value is the sum of the individual capacitor values according to the type and number of fluorescent lamps compensated in parallel (see table below). The max. load current of the actuator must not be exceeded. The max. number of cycles selected depends on the type of application and hence determines the number of fluorescent lamps to be switched via an actuator.

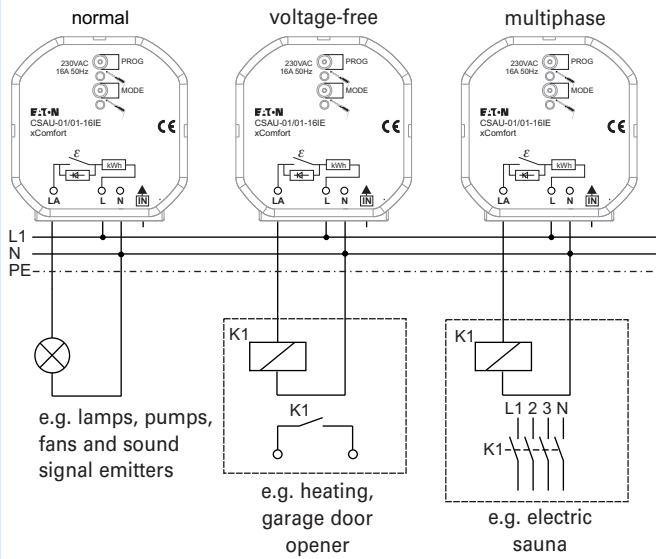
Lamp capacity	Capacitor / Compensation in parallel
4-13W	2uF
15-40W	4,5uF
58W	7uF

The above mentioned values are given by the manufacturers of fluorescent lamps and ballasts. Subject to changes without guarantee.

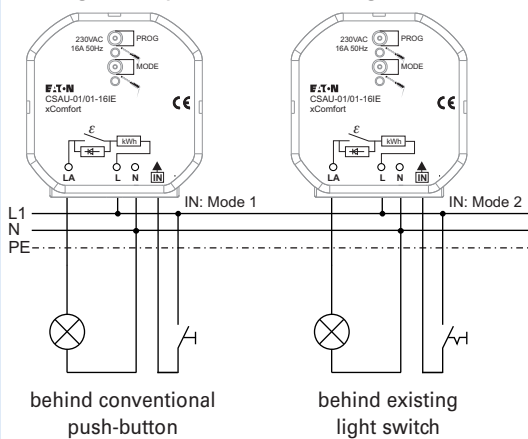


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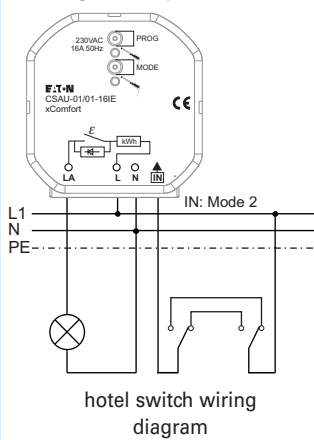
Wiring Examples for Switching Actuator CSAU-01/01-1.IE



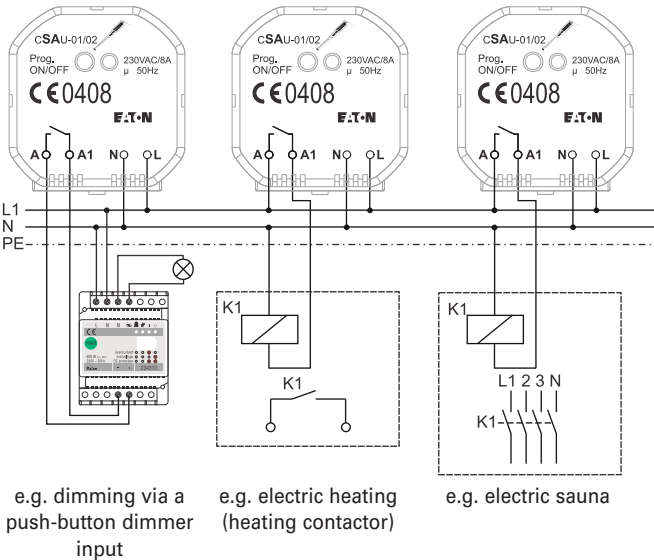
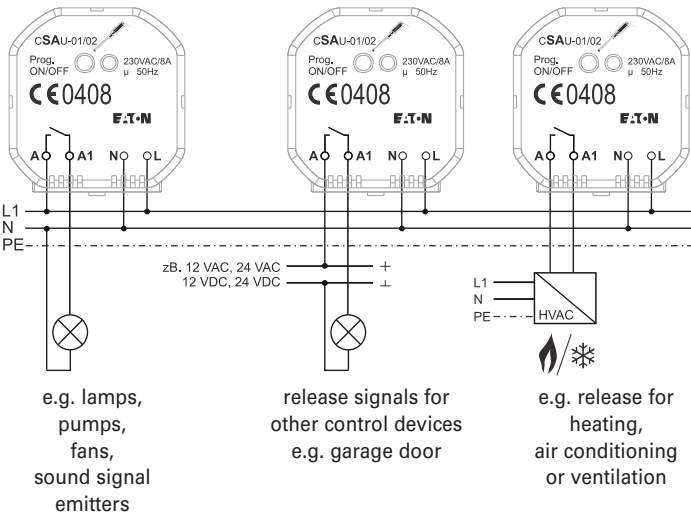
Wiring Examples for Switching Actuator CSAU-01/01-1.IE



Wiring Example for Switching Actuator CSAU-01/01-1.IE



Wiring Examples for Switching Actuator CSAU-01/02, CSAU-01/04



Switching fluorescent lamps with a CSAU-01/02 actuator

SA cycles	Total capacitor value
55000	25µF
26000	55µF
14000	90µF
8000	100µF
7000	130µF

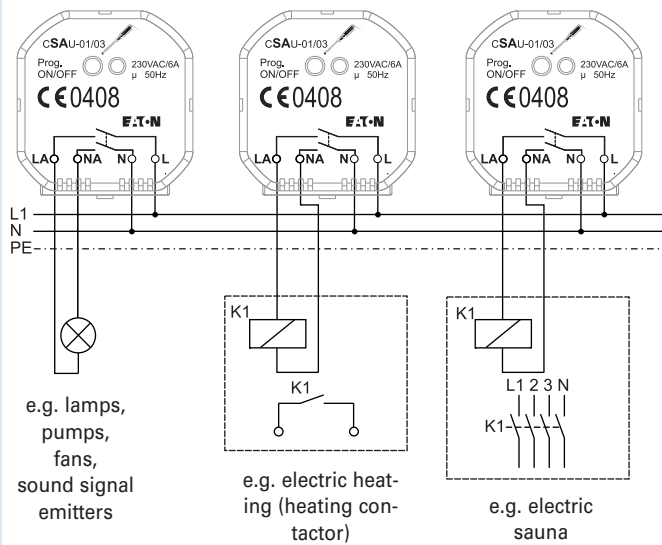
The numbers of SA cycles specified are approximate values and may vary depending on the local conditions prevailing in each case. The total capacitor value is the sum of the individual capacitor values according to the type and number of fluorescent lamps compensated in parallel (see table below). The max. load current of the actuator must not be exceeded. The max. number of cycles selected depends on the type of application and hence determines the number of fluorescent lamps to be switched via an actuator.

Lamp capacity	Capacitor / Compensation in parallel
4-13W	2µF
15-40W	4,5µF
58W	7µF

The above mentioned values are given by the manufacturers of fluorescent lamps and ballasts. Subject to changes without guarantee.



Wiring Examples for Switching Actuator CSAU-01/03



Switching fluorescent lamps with a CSAU-01/03 actuator

SA cycles	Total capacitor value
37000	25µF
15000	55µF
7000	90µF
4000	107µF
2000	133µF

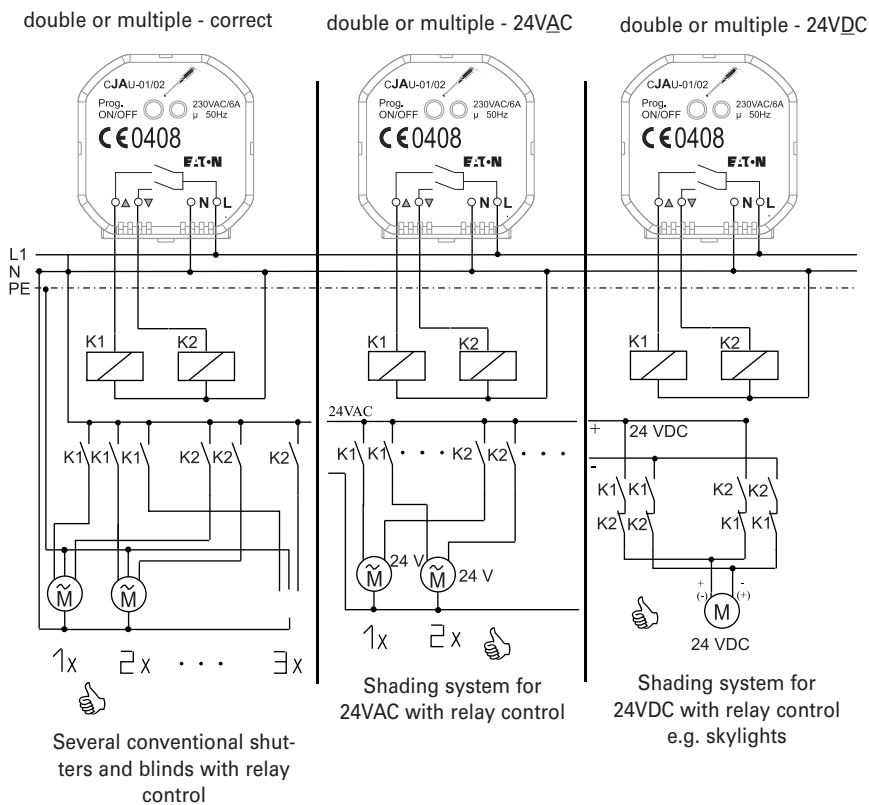
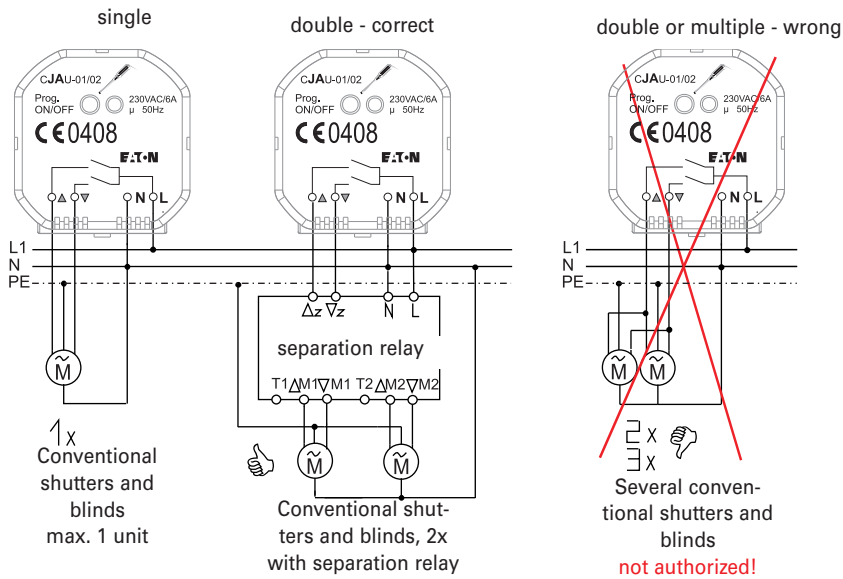
The numbers of SA cycles specified are approximate values and may vary depending on the local conditions prevailing in each case. The total capacitor value is the sum of the individual capacitor values according to the type and number of fluorescent lamps compensated in parallel (see table below). The max. load current of the actuator must not be exceeded. The max. number of cycles selected depends on the type of application and hence determines the number of fluorescent lamps to be switched via an actuator.

Lamp capacity	Capacitor / Compensation in parallel
4-13W	2µF
15-40W	4,5µF
58W	7µF

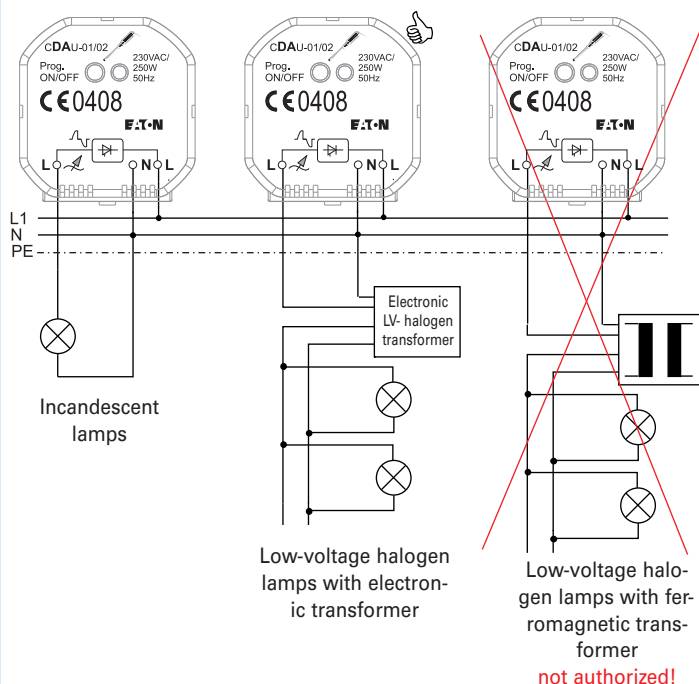
The above mentioned values are given by the manufacturers of fluorescent lamps and ballasts. Subject to changes without guarantee.



Wiring Examples for Shutter Actuator CJAU-01/02, CJAU-01/03

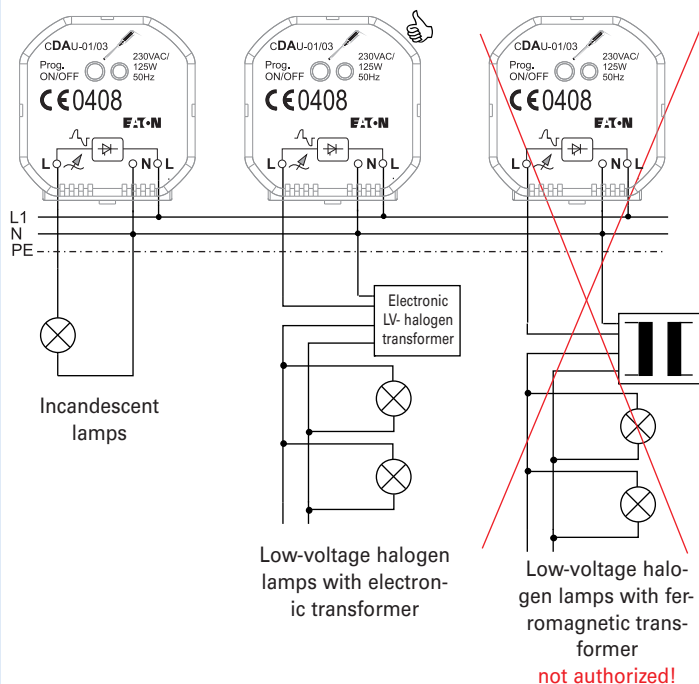


Wiring Examples for Dimming Actuator CDAU-01/02



ATTENTION!
max. 250 W

Wiring Examples for Dimming Actuator CDAU-01/03



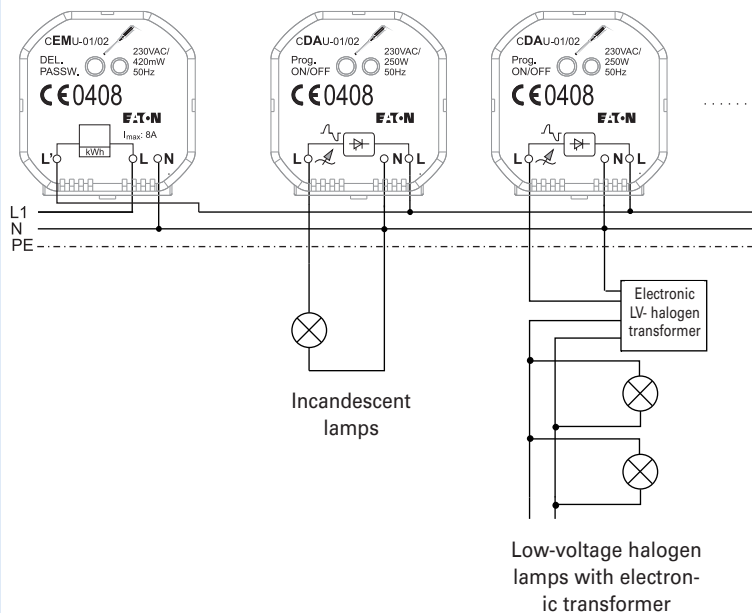
ATTENTION!
max. 125 W



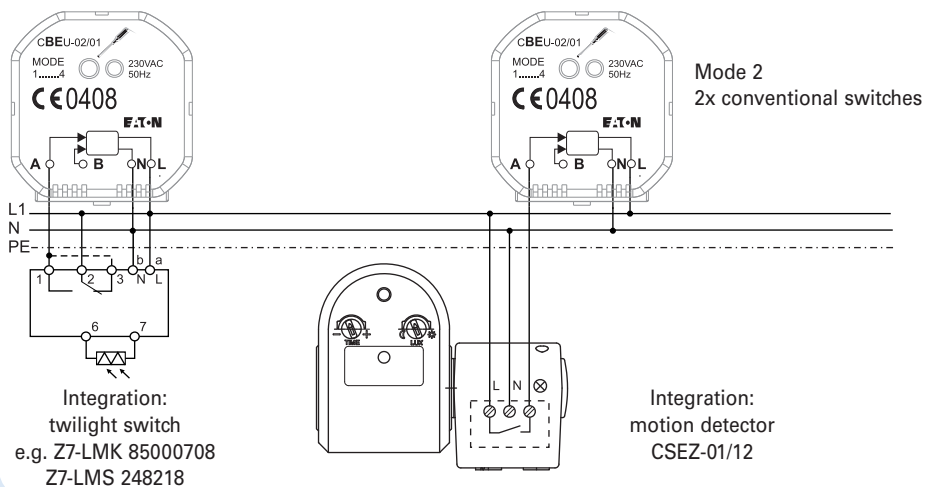
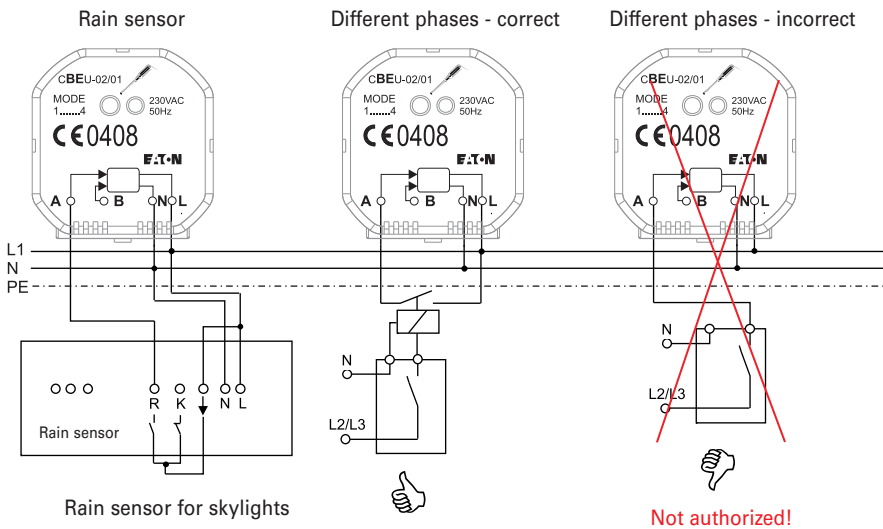
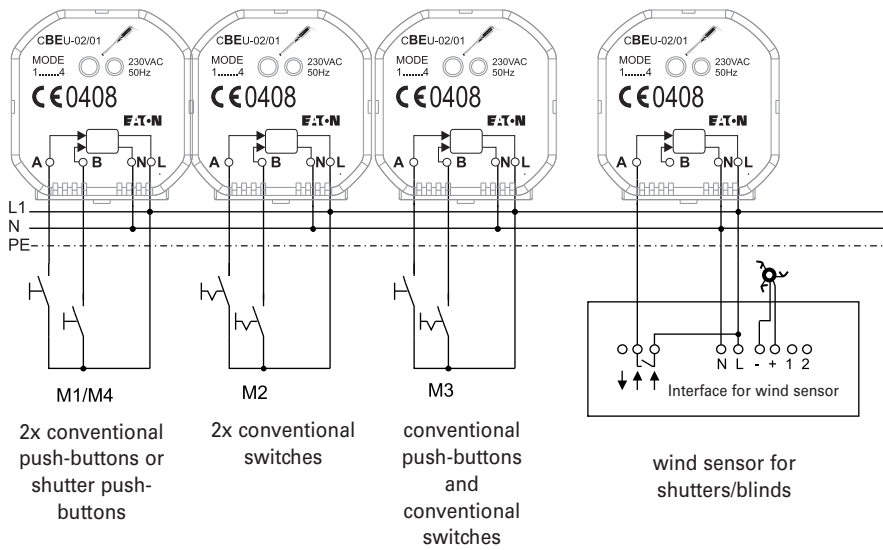
Wiring Examples for Energy Meter Sensor CEMU-01/02

Energy meter sensor:
Make sure the wiring is
correct!

... consumer units to be registered

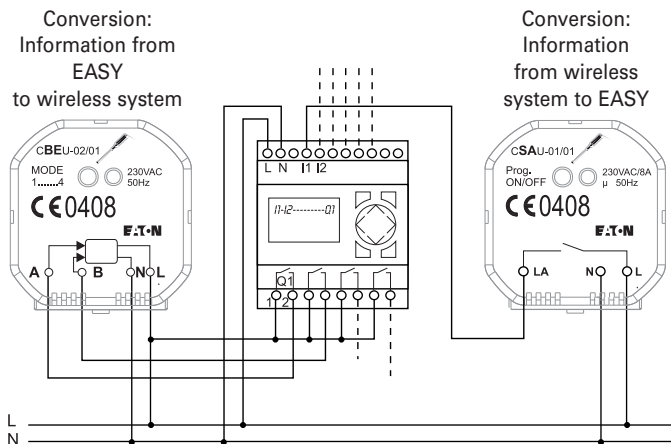


Wiring Examples for Binary Input Unit CBEU-02/01

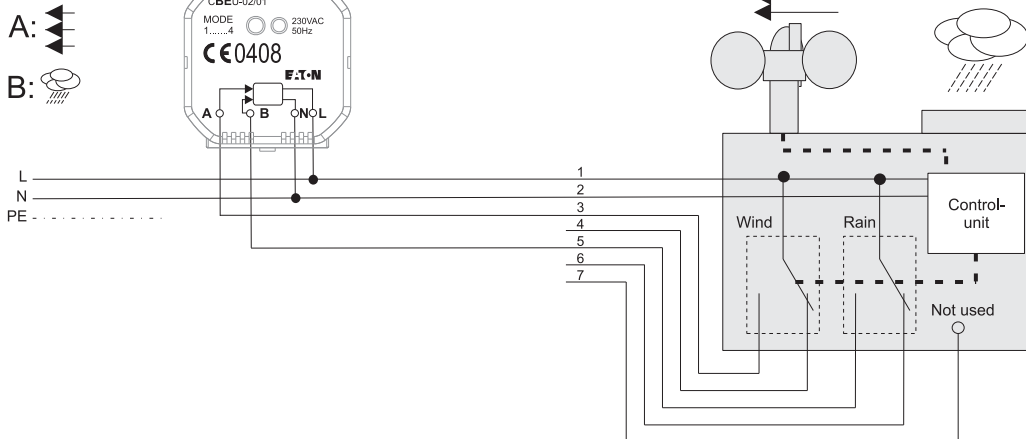


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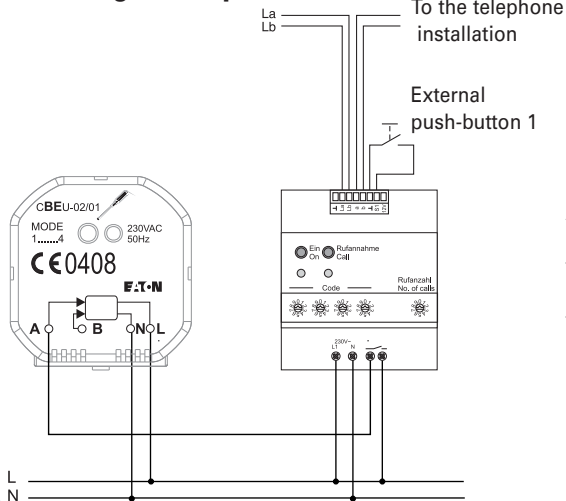
Wiring Examples of Binary Input Unit CBEU-02/01 (continued)



Mode M2 !!!



Switching via Telephone



Attention:
Choose a protective device for
the user's power circuit in com-
pliance with the maximum con-
tact load.
(See Technical Specifications)



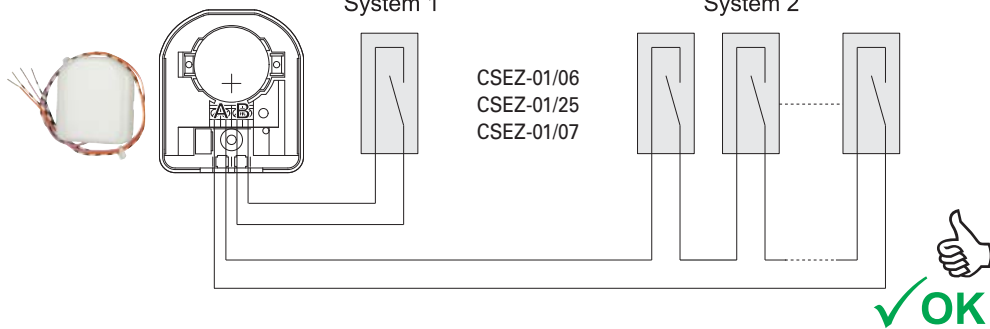
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Wiring Examples of Binary Input Unit CBEU-02/02

Mode M2 !!!

A: System 2

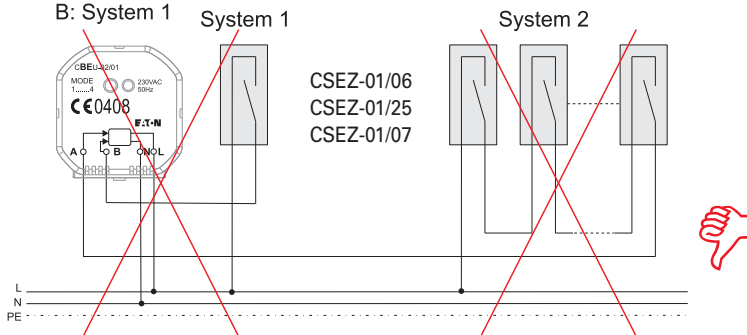
B: System 1



Mode M2 !!!

A: System 2

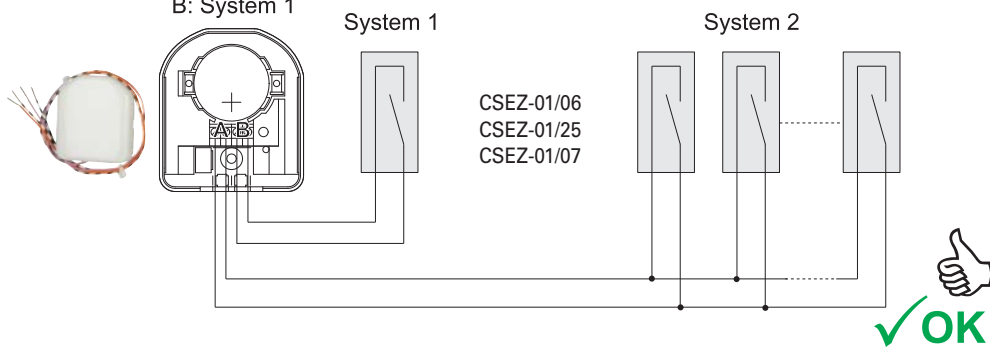
B: System 1



Mode M2 !!!

A: System 2

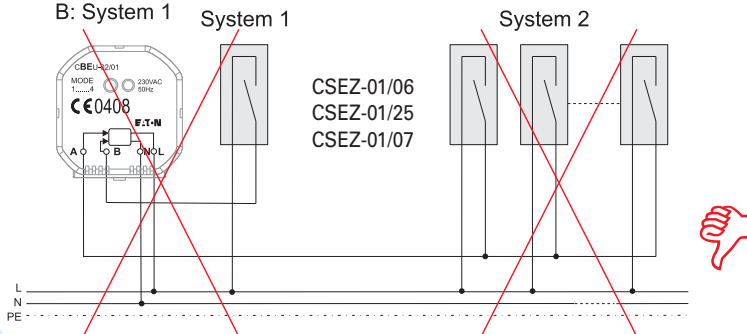
B: System 1



Mode M2 !!!

A: System 2

B: System 1

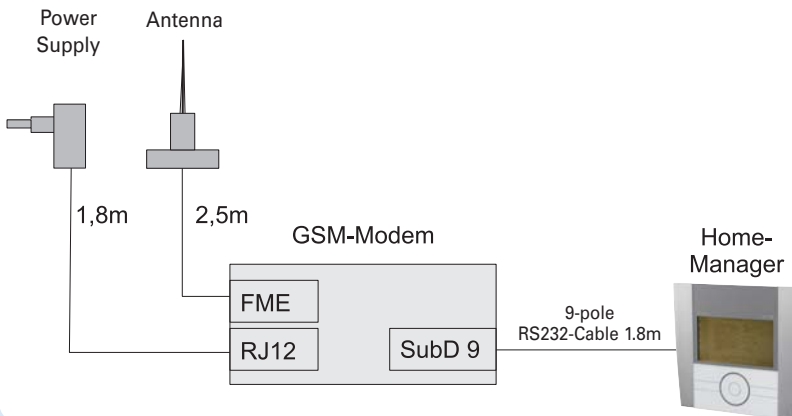


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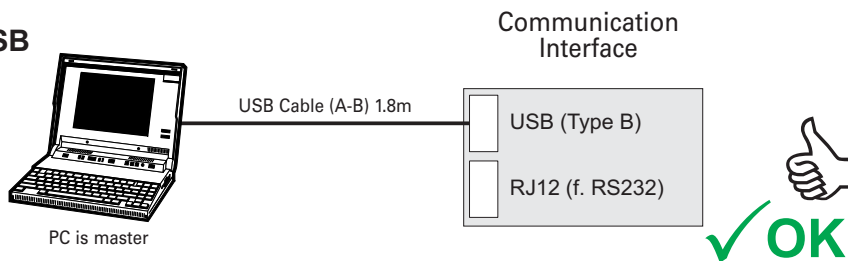
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Wiring Example GSM-Modem CKOZ-00/02, CKOZ-00/06

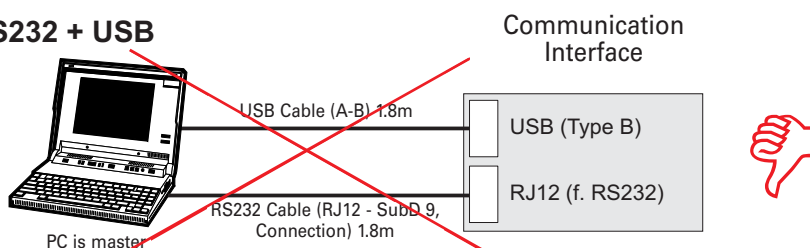


Wiring Examples Communication Interface CKOZ-00/03

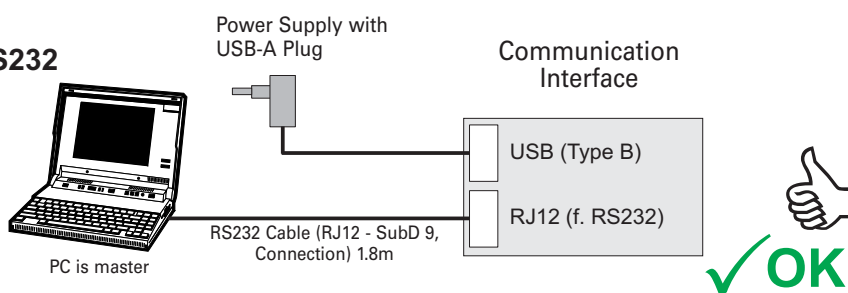
USB



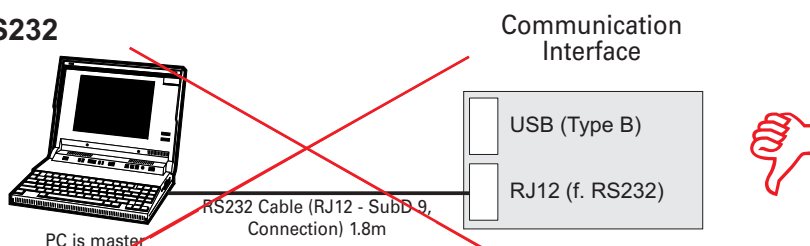
RS232 + USB



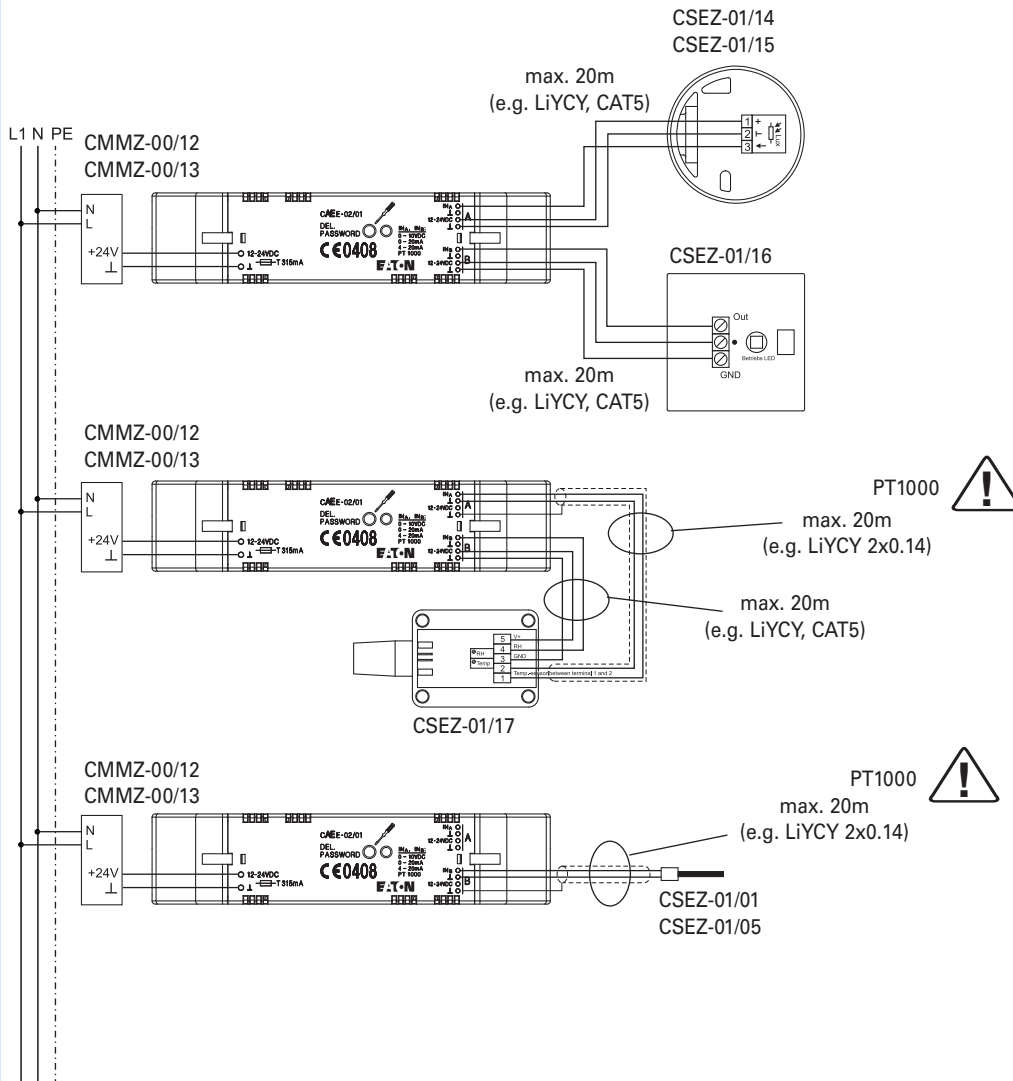
RS232



RS232



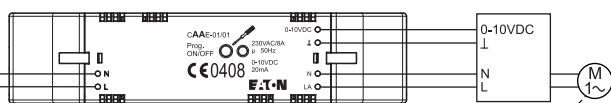
Wiring Examples for Analogue Input CAEE-02/01



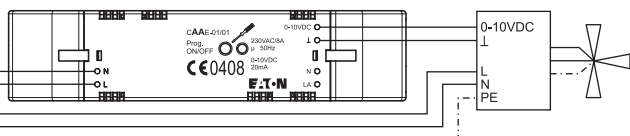
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Wiring Examples for Analogue Actuator CAAE-01/01

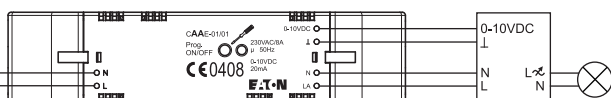
L1 N PE



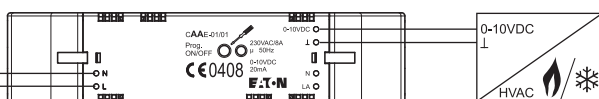
e.g. motor speed controller



e.g. mixer controller



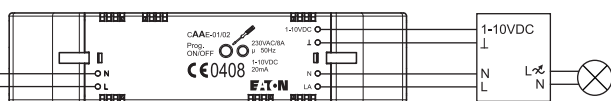
e.g. dimmer or power dimmer



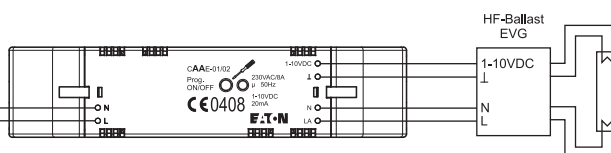
e.g. heating, air conditioning, ventilation

Wiring Examples for Analogue Actuator CAAE-01/02, CAAE-01/05

L1 N PE



e.g. dimmer or power dimmer



e.g. dimming of fluorescent lamp(s) using electronic ballasts



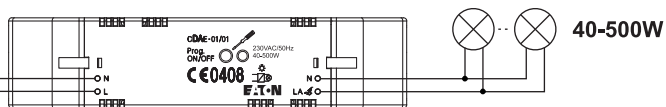
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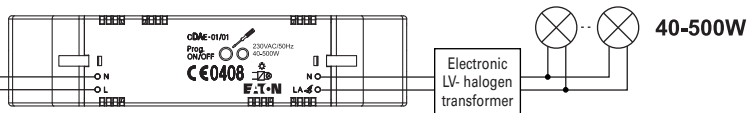
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Wiring Examples for Dimming Actuator CDAE-01/01

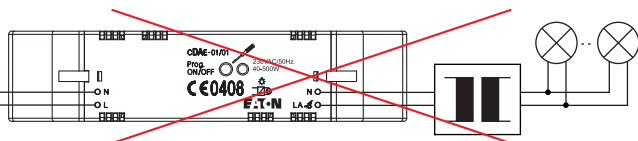
L1 N PE



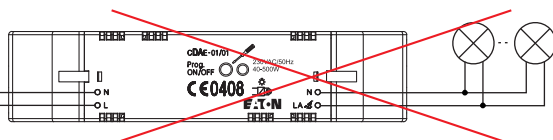
Incandescent lamps



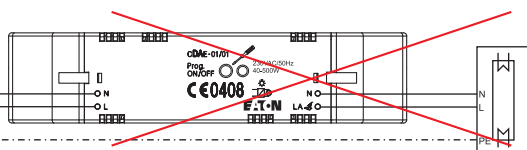
Low-voltage halogen lamps
with electronic transformer



Low-voltage halogen lamps
with coil transformer
not authorized!



Energy saving lamps
not authorized!



Fluorescent lamps
not authorized!

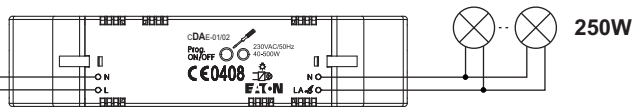


EATON

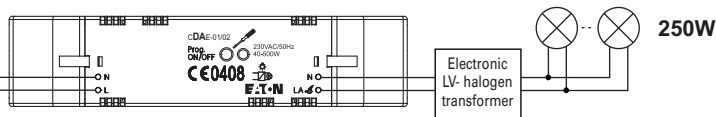
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Wiring Examples for Dimming Actuator CDAE-01/02

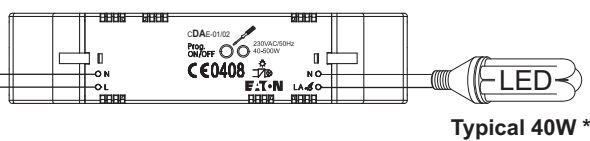
L1 N PE



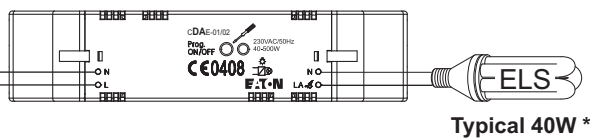
Incandescent lamps



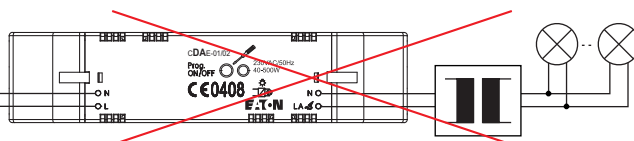
Low-voltage halogen lamps
with electronic transformer



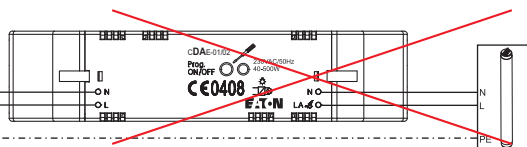
Dimmable with phase section LED-lamps



Dimmable with phase section energy saving
lamps



Low-voltage halogen lamps
with coil transformer
not authorized!



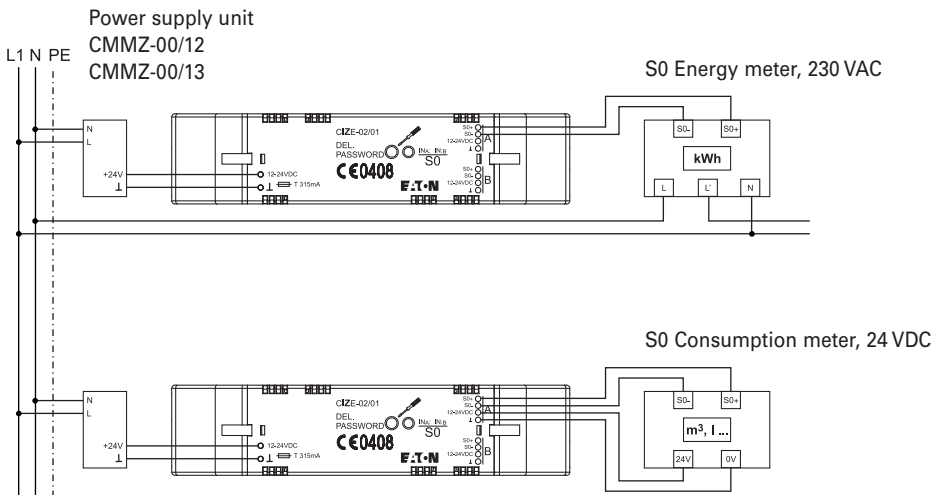
Fluorescent lamps
not authorized!

* Depending on the LED- or ELS-lamp type.

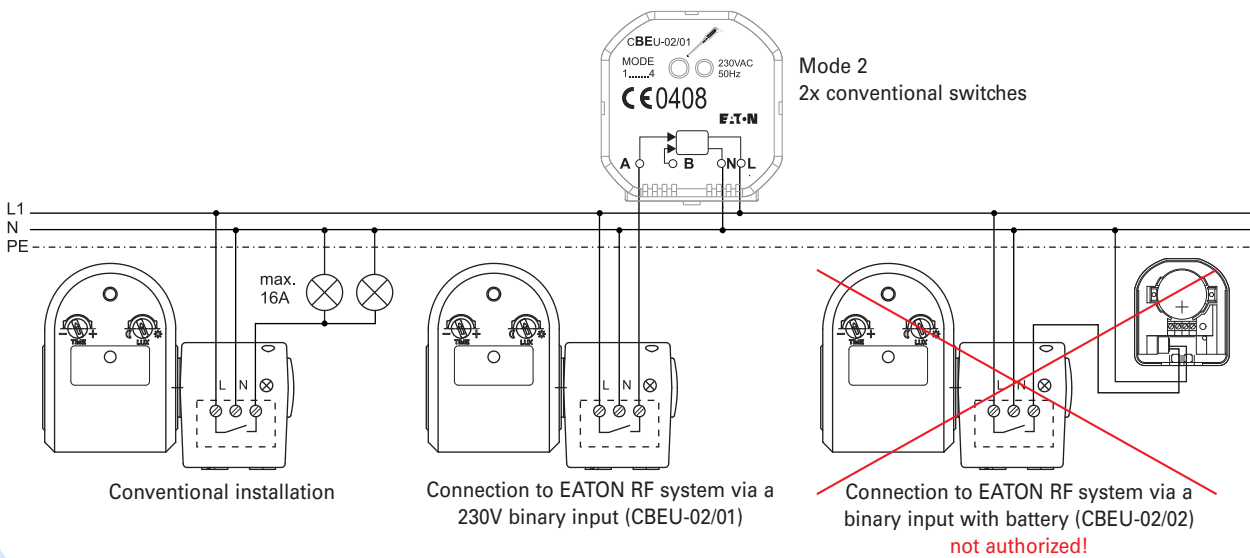


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Wiring Examples for Impulse Counting Input 2-way CIZE-02/01

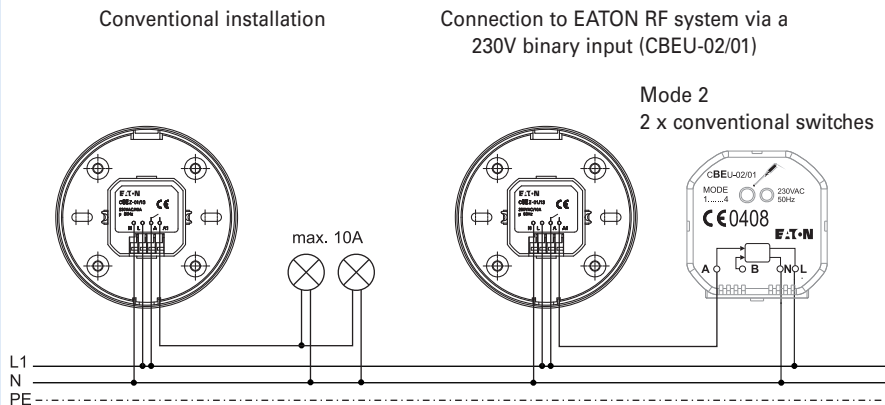


Wiring Examples for Motion Sensor CSEZ-01/12

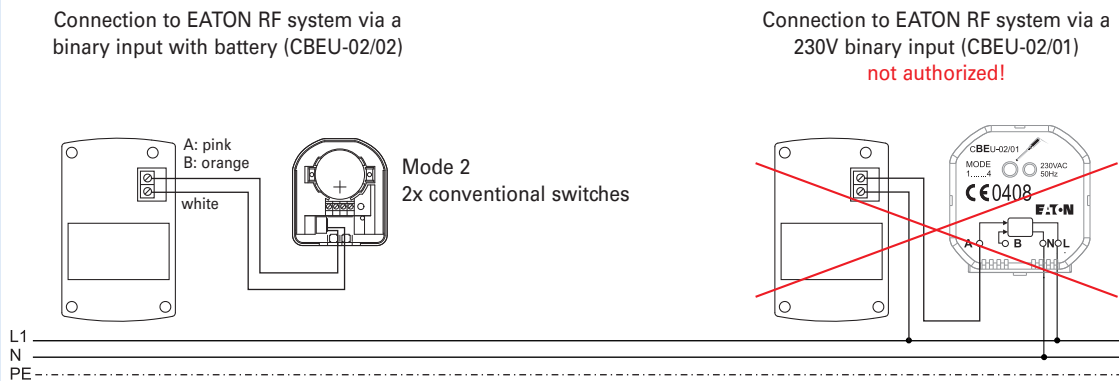


EATON RF SYSTEM

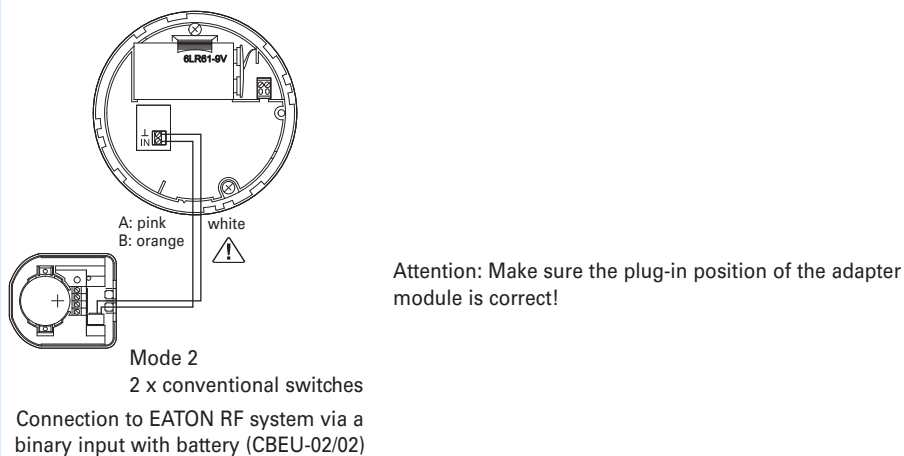
Wiring Examples for standard PIR Detectors



Wiring Examples for Water Leakage Sensor CSEZ-01/18

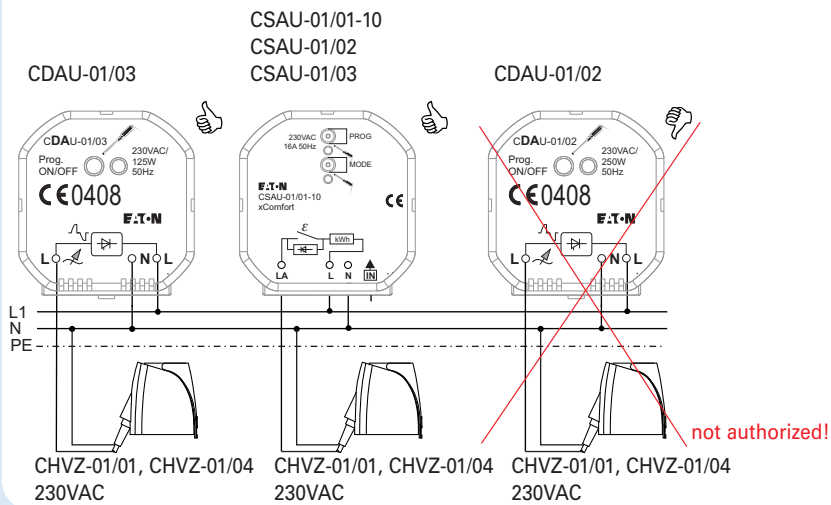


Wiring Example for Smoke Detector CSEZ-01/19

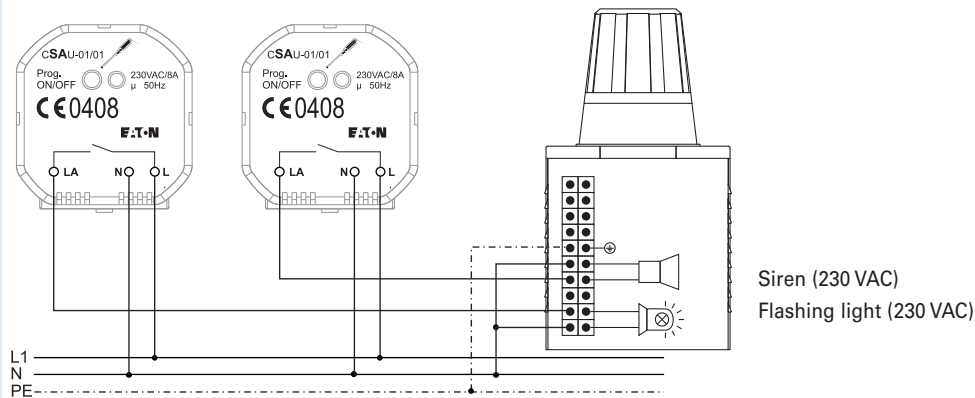


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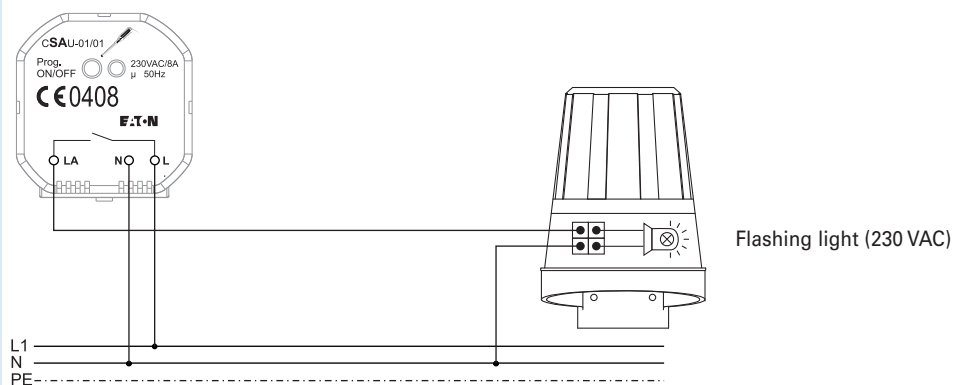
Wiring Examples for Radiator Valve CHVZ-01/01, CHVZ-01/04

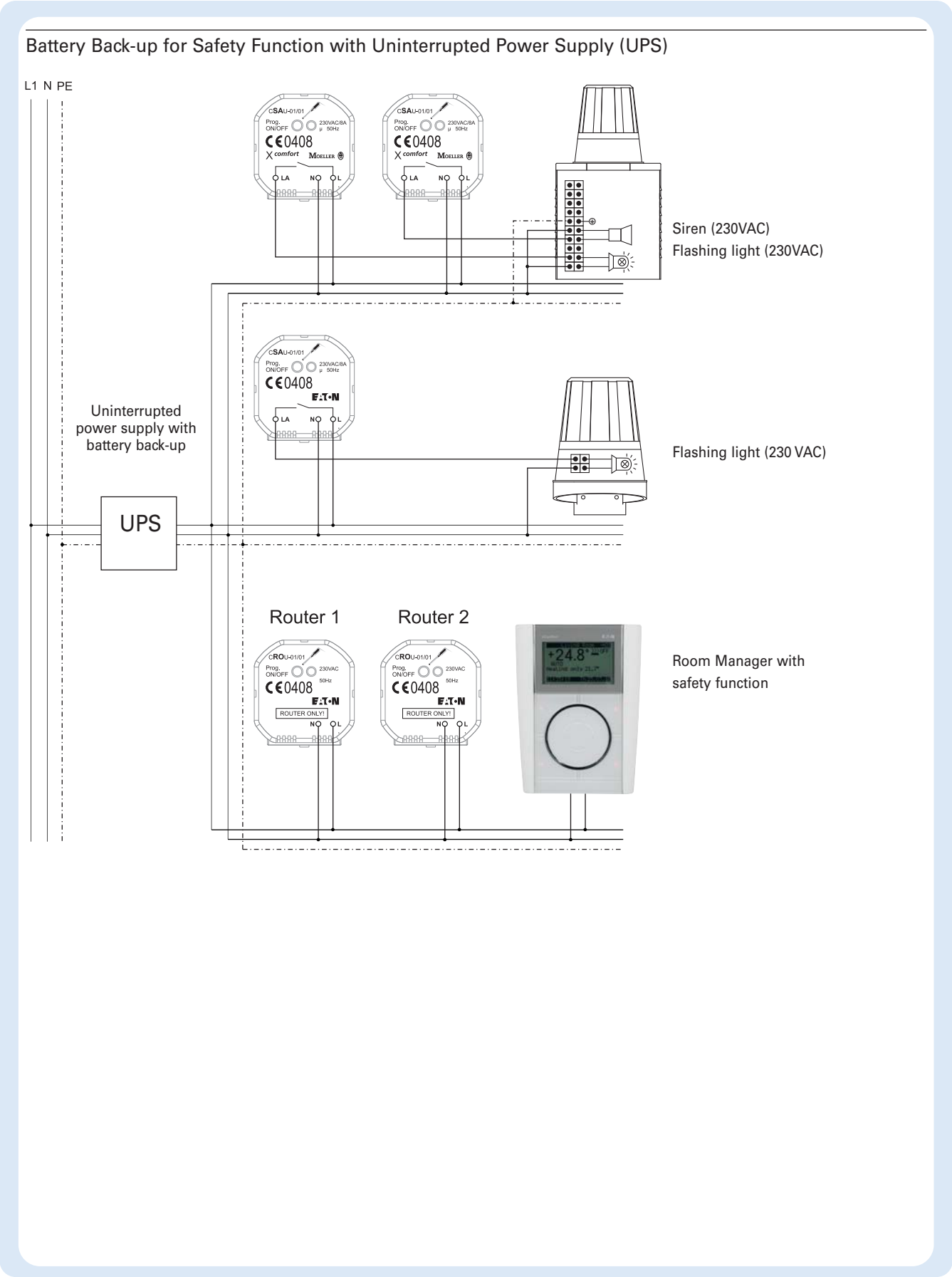


Wiring Examples for Compact Signal Emitter CSGZ-02/01



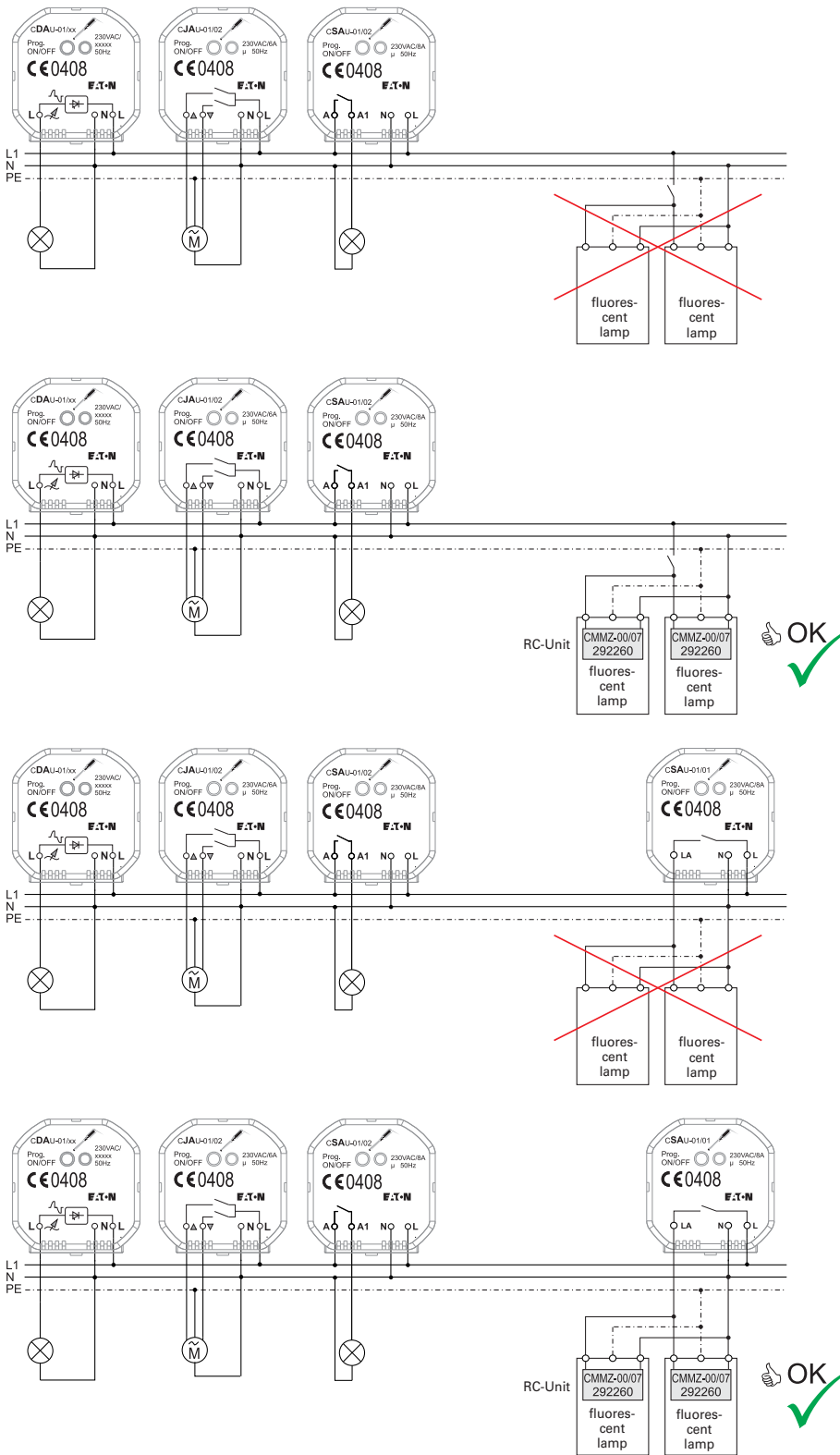
Wiring Examples for Flashing Light Signal Emitter CSGZ-01/02



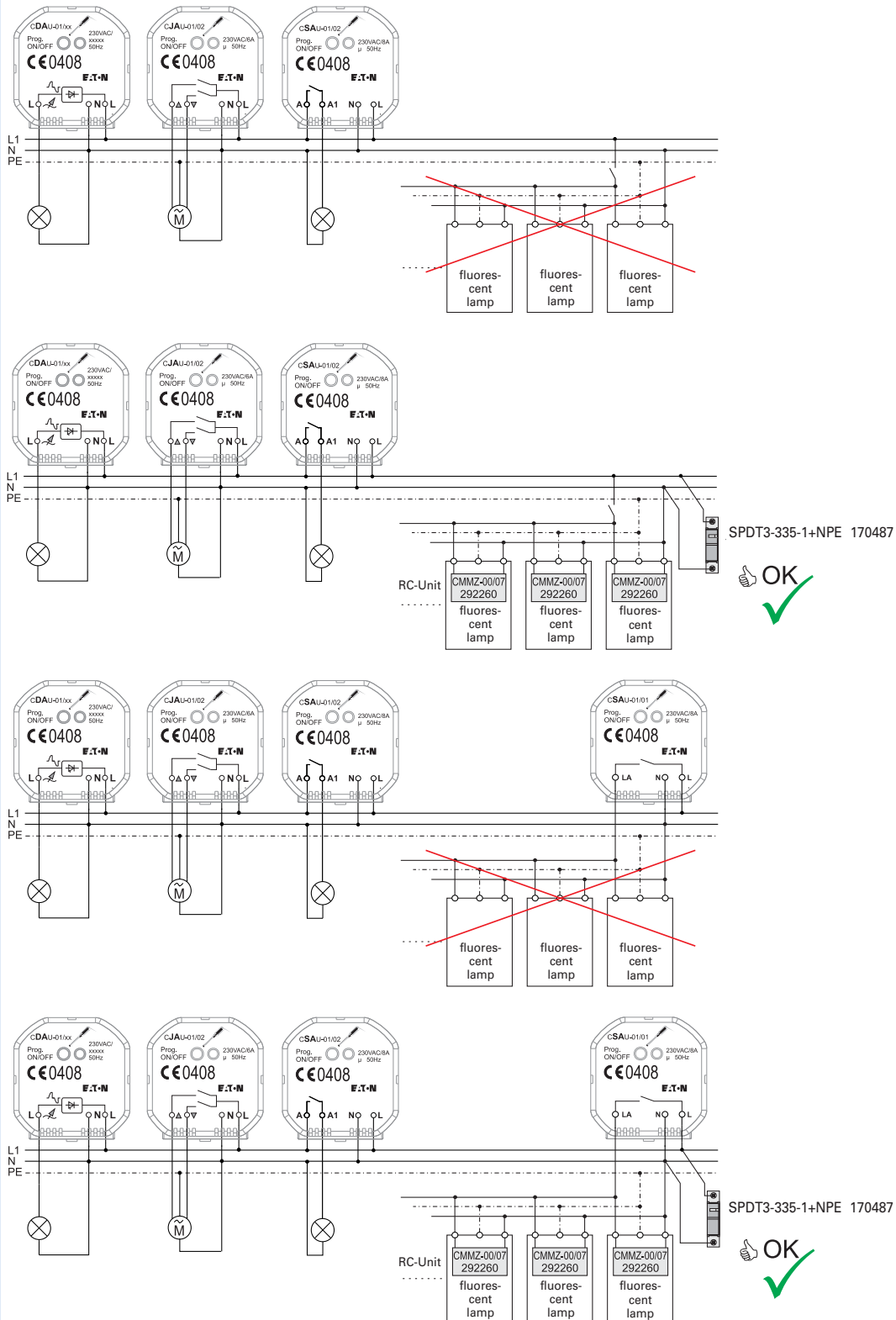


Overvoltage protection with inductive loads - fluorescent lamps

Is on the same phase, on which e.g. also CSAU-01/0x, CJAU-01/0x, CDAU-01/0x, CSAP-01/0x, CDAP-01/0x, and/or CBEU-02/01 are connected, an inductance (e.g. fluorescent lamp), an overvoltage protection is as in following examples to use.

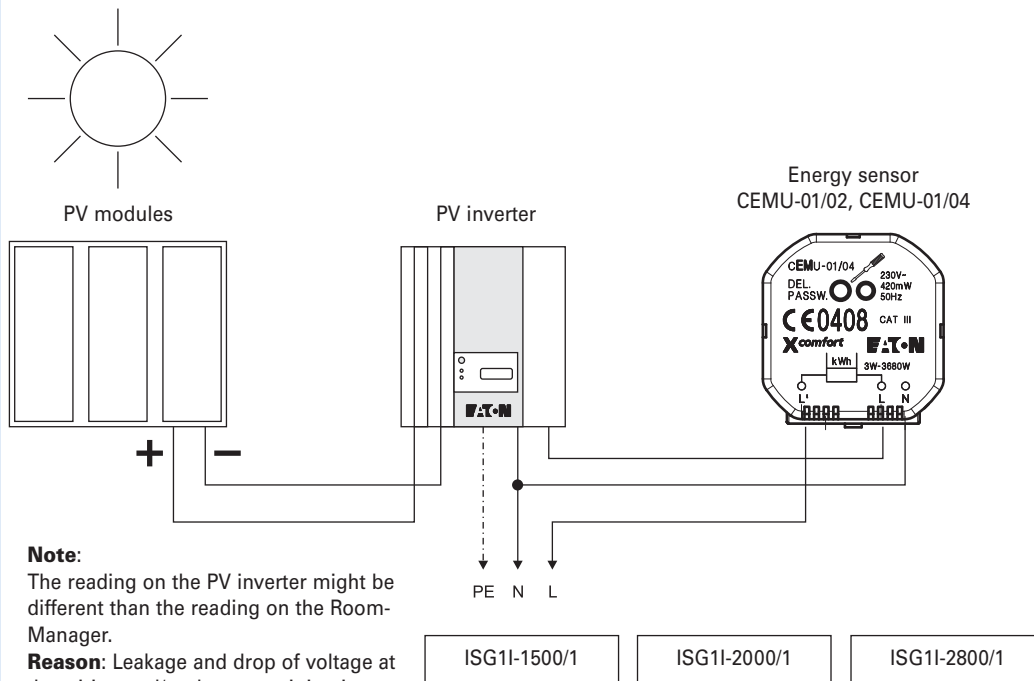


Overvoltage protection with inductive loads - fluorescent lamps (continued)

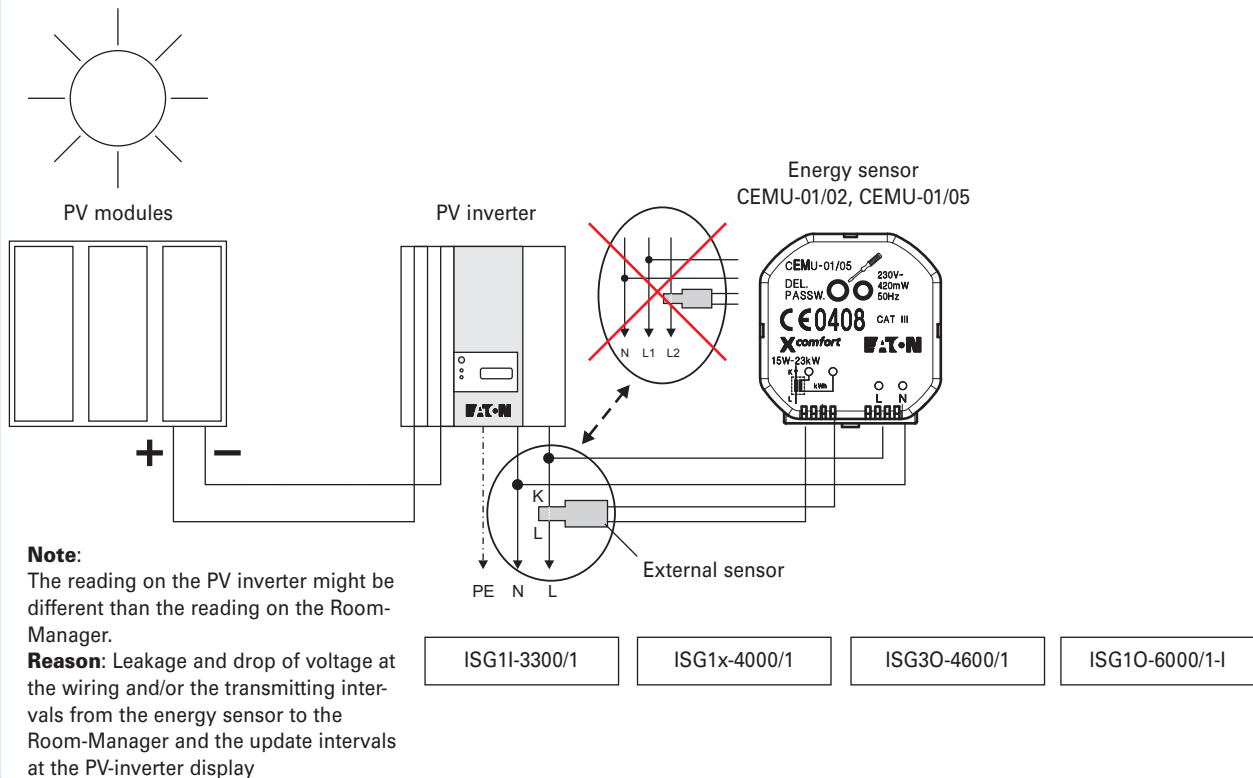


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Connection example for energy sensor CEMU-01/04



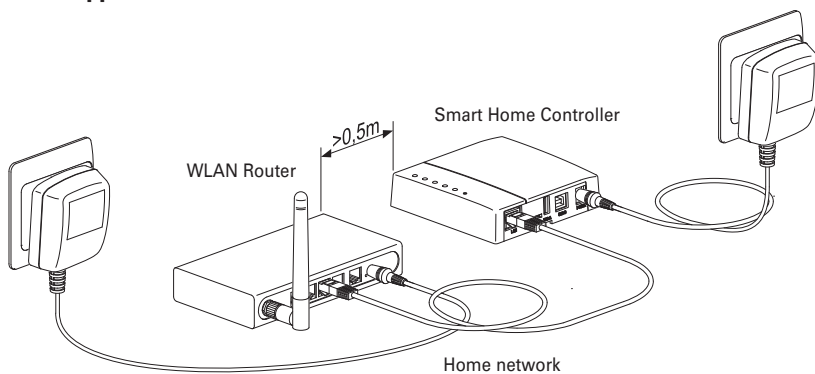
Connection example for energy sensor CEMU-01/05



EATON RF SYSTEM

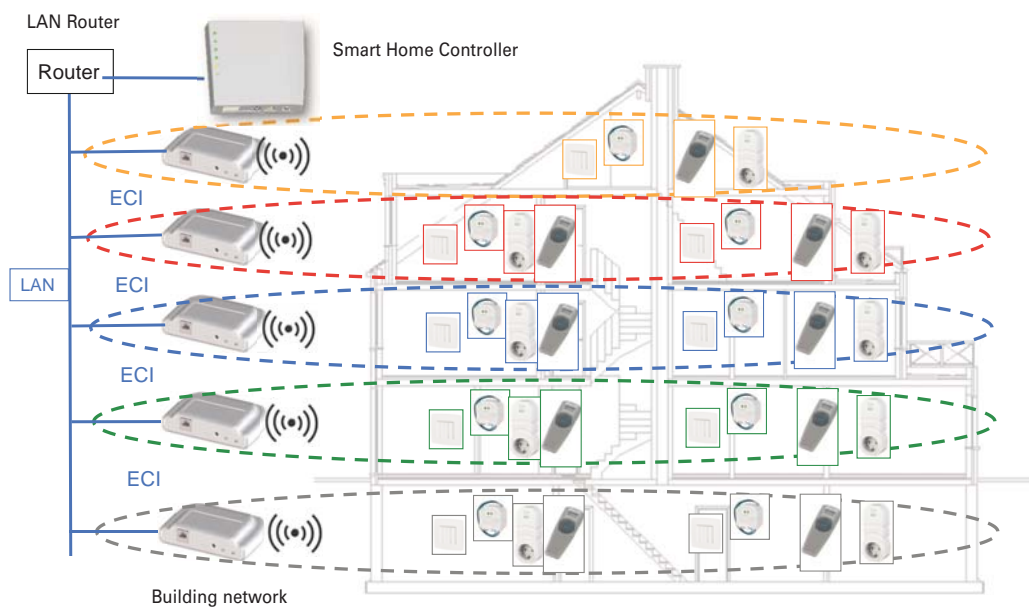
Connection example for Smart Home Controller CHCA-00/01

Home applications



Automatic assignment of the IP address via DHCP

Small functional buildings, offices, ...



EATON

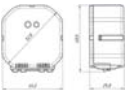
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Connection example for CRMA-00/01 - CRMA-00/22



Switching Actuator CSAU-01/01



45.5

26

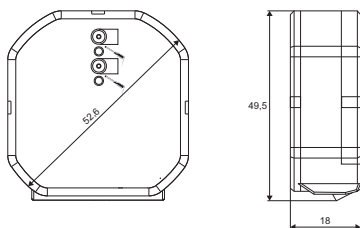
Technical Specifications

Power supply	230VAC, 50Hz
Connections	Single-wired 1.5mm ² connections
Load	230VAC, 50Hz, 8A resistive load The device switches L via L _A
Pre-protection	Power circuit breaker 16A, characteristic C Internal protection through thermal protection
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Degree of protection	IP20
Degree of soiling	2
Operating temperature	-5 to +45°C
Storage /transportation temp.	-25 to +70°C
Colour of the frame	Grey, RAL7035
Size of the frame	HxWxD - 48.6 x 45.3 x 26.2mm
Length of connection wires	150mm
Approval	Printed onto the device



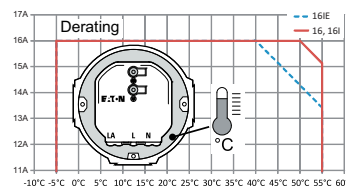
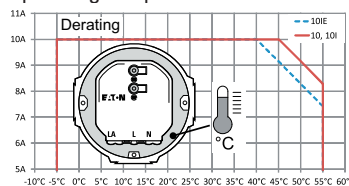
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Switching Actuator CSAU-01/01-1.IE



Technical Specifications

Power supply	230VAC, 50Hz
Connections	CSAU-01/01-10(IE) CSAU-01/01-16(IE)
	Single-wired 1.5mm ² all connections Single-wired 2.5mm ² L+LA connections Single-wired 1.5mm ² N+IN connections
Power consumption	CSAU-01/01-1.(I) CSAU-01/01-1.IE
	0.23W 0.25W
Switching technology	Eaton Patented Hybrid switching technology
Load switching	The device switches L via LA
	CSAU-01/01-10(IE) CSAU-01/01-16(IE)
	230VAC, 50Hz, 10A RLC load 230VAC, 50Hz, 16A RLC load
Energy Measurement Sensor	CSAU-01/01-10(IE) CSAU-01/01-16(IE)
	3W to 2300W, 5% accuracy >3W 3W to 3680W, 5% accuracy >3W
Measurement units	Energy in kWh, Active power in W
Binary Input voltage	Maximum 265V
	Input contact resistance IN to L Voltage difference IN to L
	<10kΩ reliably ON, >50kΩ reliably OFF <1V reliably ON, >3V reliably OFF
Internal protection	Overvoltage, temperature (load will be disconnected)
Pre-protection	Power circuit breaker 16A, characteristic C
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Function Assignments	32
Routing Paths	32
Degree of protection	IP20
Degree of soiling	2
Operating temperature	-5 to +55°C



Storage/transportation temp.	-25 to +70°C
Colour of the frame	Grey, RAL7035
Size of the frame	HxWxD - 49.5 x 45.5 x 18mm
Length of connection wires	150mm
Approval	Printed onto the device

Basic Mode support:

Local Input mode:	Push-button (Mode 1), Switch (Mode 2)
Function mode:	On/Off, Surge, Push-button, Staircase, Staircase with pre-warning



Extended Status Messaging support:

Output status	OFF, ON, OFF Locked, ON Locked, Blinking, OFF over temperature
Binary input	ON, OFF pressed, not pressed
Internal device temperature	0-125 °C
Current Power load	0.0W-3700.0W
Load Error Detection status	OK, Not OK
ATTENTION! Extended Status Messaging is supported by the following Smart Devices:	
Room Manager	V41a (for output 1-10) or higher
Smart Home Controller	V2.0 or higher
USB RF-Communication stick	V2.0 or higher
Ethernet CI	V2.0 or higher
If one of the connected devices does not support the Extended Status Messaging format the Actuator will switch back to the standard status messaging format.	



CSAU-01/01-16
CSAU-01/01-16I
CSAU-01/01-16IE



EN60670

ATTENTION!

CSAU-01/01-16, CSAU-01/01-16I, CSAU-01/01-16IE:

This device must be installed inside a mounting box (complying to EN60670) and behind an accessory or blank plate that uses at least 2 screw fixing points to secure it to the mounting box.

Failure to do so could result in a fire hazard or electric shock under extreme external fault conditions.



Protect with MCB 16A Type B/C according to EN60898

Switching Actuator Voltage-Free CSAU-01/02, CSAU-01/04



45.5

26

Technical Specifications

Power supply	230VAC, 50Hz
Connections	Single-wired 1.5mm ² connections
Load	230VAC, 50Hz, 8A resistive load; 24VDC, 8A The device switches A via A1
Pre-protection	Power circuit breaker 16A, characteristic C Internal protection through thermal protection
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Degree of protection	IP20
Degree of soiling	2
Operating temperature	-5 to +45°C
Storage /transportation temp.	-25 to +70°C
Colour of the frame	Grey, RAL7035
Size of the frame	HxWxD - 48.6 x 45.3 x 26.2mm
Length of connection wires	150mm
Approval	Printed onto the device

Switching Actuator All-Poles CSAU-01/03



45.5

26

Technical Specifications

Power supply	230VAC, 50Hz
Connections	Single-wired 1.5mm ² connections
Load	230VAC, 50Hz, 6A resistive load The device switches L via LA and N via NA
Pre-protection	Power circuit breaker 16A, characteristic C Internal protection through thermal protection
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Degree of protection	IP20
Degree of soiling	2
Operating temperature	-5 to +45°C
Storage /transportation temp.	-25 to +70°C
Colour of the frame	Grey, RAL7035
Size of the frame	HxWxD - 48.6 x 45.3 x 26.2mm
Length of connection wires	150mm
Approval	Printed onto the device



Shutters/Blinds Actuator CJAU-01/02, CJAU-01/03



45.5

26

Technical Specifications

Power supply	230VAC, 50Hz
Connections	Single-wired 1.5mm ² connections
Load	230VAC, 50Hz, 6A resistive load Device switches L via change-over contact
Pre-protection	Power circuit breaker 16A, characteristic C Internal protection through thermal protection
Direction changeover time	Typical 700 - 800ms
Frequency	300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Degree of protection	IP20
Degree of soiling	2
Operating temperature	-5 to +45°C
Storage/transportation temp.	-25 to +70°C
Colour of the frame	Grey, RAL7035
Dimensions of the frame	HxWxD - 48.6 x 45.3 x 26.2mm
Length of the connecting wires	150mm
Approval	Printed onto the device

Dimming Actuator CDAU-01/02, CDAU-01/03



45.5

26

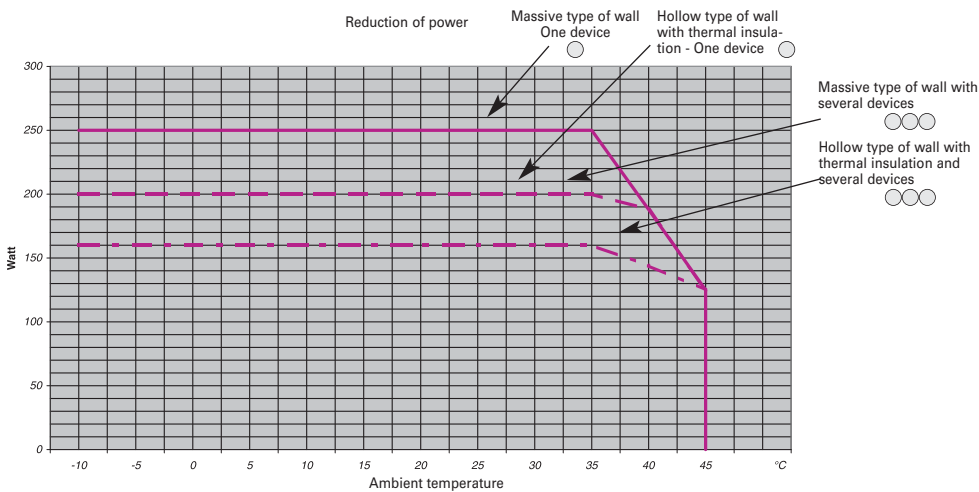
Technical Specifications

Power supply	230VAC, 50Hz
Connections	Single-wired 1.5mm ² connections
Load	
CDAU-01/02	230VAC, 50Hz, 250W incandescent lamps or electronic transformers, trailing-edge, NO inductive LOAD!!!
CDAU-01/03	230VAC, 50Hz, 125W incandescent lamps, electronic transformers or thermal motor drive, trailing-edge, NO inductive LOAD!!!
Pre-protection	Power circuit breaker 16A, characteristic C Internal overload and short-circuit protection
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Degree of protection	IP20
Degree of soiling	2
Operating temperature	-5 to +45°C
Storage/transportation temp.	-25 to +70°C
Colour of the frame	Grey, RAL7035
Dimensions of the frame	HxWxD - 48.6 x 45.3 x 26.2mm
Length of the connection wires	150mm
Approval	Printed onto the device

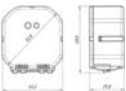
Reduction of power see next page.



Reduction of power for CDAU-01/02



Router CROU-00/01



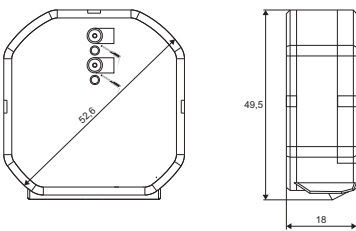
45.5

26

Technical Specifications

Power supply	230VAC, 50Hz
Connections	Single-wired 1.5mm ² connections
Power consumption	0.25W
Pre-protection	Power circuit breaker 16A, characteristic C
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
ATTENTION	Only for Comfort-Mode!
Degree of protection	IP20
Degree of soiling	2
Operating temperature	-5 to +45°C
Storage/transportation temp.	-25 to +70°C
Colour of the frame	Grey, RAL7035
Dimensions of the frame	HxWxD - 48.6 x 45.3 x 26.2mm
Length of the connection wires	150mm
Approval	Printed onto the device

Router CROU-00/01-S, CROU-00/01-SL

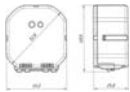


Technical Specifications

Power supply	230VAC, 50Hz
Connections	Single-wired 1.5mm ² connections
Power consumption	0.23W
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Function Assignments	32
Routing Paths	32
Degree of protection	IP20
Degree of soiling	2
Operating temperature	-5 to +55°C
Storage/transportation temp.	-25 to +70°C
Colour of the frame	Grey, RAL7035
Dimensions of the frame	HxWxD - 49.5 x 45.5 x 18mm
Length of the connection wires	150mm
Approval	Printed onto the device
CROU-00/01-SL Logic functionality	
Logic Functions	5
Inputs per Logic Function	2
Logic Operations	OR, AND, GREATER THAN, LESS THAN, EQUAL



Energy sensor CEMU-01/02, CEMU-01/04



45.5

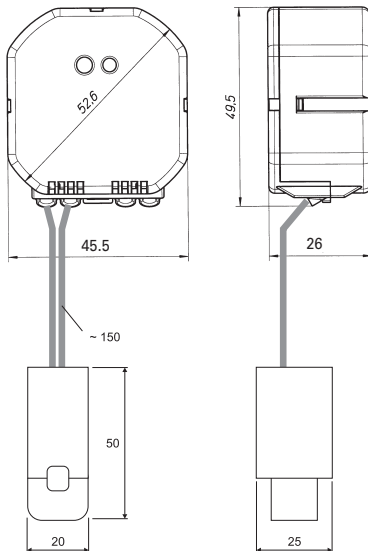
26

Technical specifications

Power supply	230VAC, 50Hz
Connections	Lead wires solid, 2.5mm ²
Power consumption	0,42VA
Pre-protection	LS 16A, characteristic C
Max. current	16 A
Min. output	>3 W
Max. output	≤3680 W
Accuracy	5% for 230W – 3680W (-5 to 45°C)
Measurement units	Energy in Wh, current in A, voltage in V, active power in W
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Reach inside buildings	typically 15-25 m, 1 wall + 1 ceiling (depending on wall thickness and material!!)
Degree of Protection	IP20
Degree of soiling	2
Operating temperature	-5 to +45°C
Storage and transportation temp.	-25 to +70°C
Enclosure colour	Grey, RAL7035
Enclosure dimensions	HxWxD - 48.6 x 45.3 x 26.2 mm
Length of lead wires	150 mm
Approval:	Printed onto the device

* Information: For technical reasons, the CEMU-01/02, CEMU-01/04 energy meter sensor features a shorter RF range than usual xComfort standard products. "Routing" the signal may therefore be necessary in cases where the direct RF range is not sufficient. However, this does not impair the functionality of the energy meter function and will not be accepted as a reason for complaint.

Energy sensor with external sensor CEMU-01/03, CEMU-01/05



Technical specifications

Power supply	230VAC, 50Hz
Connections	Lead wires solid, 1.5mm ²
Power consumption	0.42VA
Pre-protection	LS 16A, characteristic C
Max. current	16 A
Min. output	>15 W (over external sensor)
Max. output	≤23 kW (max. 100A) (over external sensor)
Accuracy	10%
Measurement units	Energy in Wh, current in A, voltage in V, active power in W
Frequency	868, 300 MHz
Type of transmission	Bi-directional, via coded telegrams
Reach inside buildings	typically 15-25 m, 1 wall + 1 ceiling (depending on wall thickness and material!!)
Degree of Protection	IP20
Degree of soiling	2
Operating temperature	-5 to +45°C
Storage and transportation temp.	-25 to +70°C
Enclosure colour	Grey, RAL7035
Enclosure dimensions	HxWxD - 48.6 x 45.3 x 26.2 mm
Length of lead wires	150 mm
Approval:	Printed onto the device

* Information: For technical reasons, the CEMU-01/03, CEMU-01/05 energy meter sensor features a shorter RF range than usual xComfort standard products. "Routing" the signal may therefore be necessary in cases where the direct RF range is not sufficient. However, this does not impair the functionality of the energy meter function and will not be accepted as a reason for complaint.



Binary Input Unit CBEU-02/01



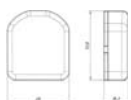
45.5

26

Technical Specifications

Power supply	230VAC, 50Hz
Connections	Single-wired 1.5mm ² connections
Input voltage	Maximum 250V , 2 inputs As of 195Veff reliably ON, up to 110Veff reliably OFF
Pre-protection	Power circuit breaker 16A, characteristic C
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Degree of protection	IP20
Degree of soiling	2
Operating temperature	-5 to +45°C
Storage/transportation temp.	-25 to +70°C
Colour of the frame	Grey, RAL7035
Dimensions of the frame	HxWxD - 48.6 x 45.3 x 26.2mm
Length of the connection wires	150mm
Approval	Printed onto the device

Binary Input Unit CBEU-02/02



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18.5

Technical Specifications

Power supply	3V via CR2477 N battery
Connections	4-pole terminal strip or 4-pole terminal strip with sef of cables. The binary input channel measures the contact resistance up to max. 220Ω ON, and as of 10kΩ min. OFF
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Service life of the battery	Approx. 5-7 years depending on application and type of battery
Degree of protection	IP20
Degree of soiling	2
Operating temperature	+5 to +40°C
Storage/transportation temp.	-25 to +70°C
Colour of the frame	White, similar to RAL9010
Dimensions of the frame	HxWxD - 51 x 46 x 18mm
Approval	Printed onto the device

Temperature Input Unit CTEU-02/01



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18

Technical Specifications

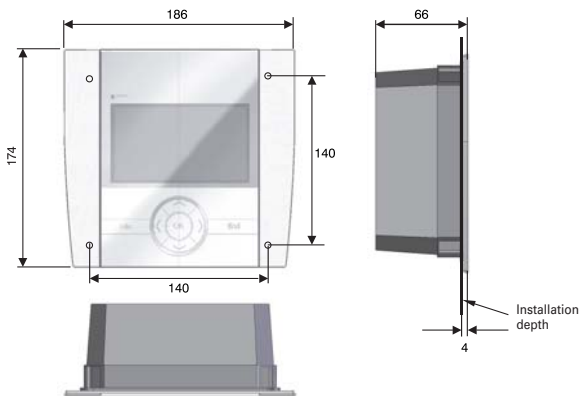
Power supply	3V via CR2477 N battery
Connections	4-pole terminal strip 2 inputs for CSEZ-01/01 Suitable for Comfort Mode only
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Service life of the battery	Approx. 5-7 years depending on application and type of battery
Degree of protection	IP20
Degree of soiling	2
Operating temperature	+5 to +40°C
Storage/transportation temp.	-25 to +70°C
Colour of the frame	White, similar to RAL9010
Dimensions of the frame	HxWxD - 51 x 46 x 18mm
Approval	Printed onto the device



Powering Business Worldwide

EATON RF SYSTEM

Home Manager CHMU-00/02



Technical Specifications

Power supply	230VAC/50Hz
Power consumption - standby:	6VA (with background lighting switched off)
Power consumption - normal:	8VA (with background lighting switched on)
Fine-wire protection in the device	T 63 mA
Pre-protection	Power circuit breaker 16A, characteristic C
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Degree of protection	IP20
Degree of soiling	2
Operating temperature	+5 to +45°C
Storage/transportation temp.	-25 to +70°C
Colour of the frame	Similar to RAL9011
Dimensions of the frame	HxWxD - 174 x 186 x 66 mm
Max. length of RS232	10m from the Home-Manager to the most distant device, for longer distances use a standard RS232 amplifier, max. distance 30 m. For indoor-use only.
Back-up battery	3V CR2032 lithium cell
Approval	Printed onto the device



Powering Business Worldwide

Push-button 45x45 mm CTAA-01/03, CTAA-02/03, CTAA-04/03



Technical Specifications

Power supply	3V via CR2430 battery
	Number of rockers depending on type
Frequency	868,300MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness, material, used rocker and frame !!)
Service life of the battery	Approx. 10 years (= battery life) according to application, battery manufacturer, time of actuation: typically 100.000 switching operations at room temperature respectively 33.000 blind operations at room temperature respectively 20.000 dimming cycles at 5 seconds dimming time and room temperature
Degree of protection	IP20
Degree of soiling	2
Operating temperature	+5 to +45°C
Storage/transportation temp.	-25 to +70°C
Colour of the push-button base	similar to RAL9001
Colour of the the mounting plate	similar to RAL9001
Size of push-button base	HxWxD - 60 x 71 x 4.5mm
Size of the mounting plate	HxWxD - 47 x 45 x 9.5mm
Approval	Printed onto the device

Push-button 45x45 mm with LED CTAA-01/03-LED, CTAA-02/03-LED, CTAA-04/03-LED

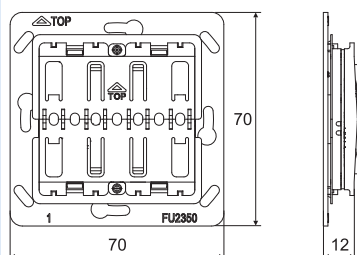


Technical Specifications

Power supply	3V via CR2430 battery
	Number of rockers depending on type
Frequency	868,300MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness, material, used rocker and frame !!)
Service life of the battery	Approx. 10 years (= battery life) according to application, battery manufacturer, time of actuation: typically 85.000 switching operations at room temperature respectively 30.000 blind operations at room temperature respectively 18.000 dimming cycles at 5 seconds dimming time and room temperature
Degree of protection	IP20
Degree of soiling	2
Operating temperature	+5 to +45°C
Storage/transportation temp.	-25 to +70°C
Colour of the push-button base	similar to RAL9001
Colour of the the mounting plate	similar to RAL9001
Size of push-button base	HxWxD - 60 x 71 x 4.5mm
Size of the mounting plate	HxWxD - 47 x 45 x 9.5mm
Approval	Printed onto the device



Push-button universal 55x55 mm without LED CTAA-01/04, CTAA-02/04, CTAA-04/04



Technical Specifications

Power supply	3V via CR2450N battery
Frequency	868,300MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness, material, used rocker and frame !!)
Service life of the battery	Approx. 10 years (= battery life) according to application, battery manufacturer, time of actuation: typically 120.000 switching operations at room temperature respectively 40.000 blind operations at room temperature respectively 24.000 dimming cycles at 5 seconds dimming time and room temperature
Degree of protection	IP20
Degree of soiling	2
Operating temperature	+5 to +45°C
Storage/transportation temp.	-25 to +70°C
Colour of the push-button base	similar to RAL7035
Colour of the the mounting plate	similar to RAL7035
Size of push-button base	HxWxD - 55 x 55 x12.2mm
Size of the mounting plate	HxWxD - 70 x 70 x 10mm
Approval	Printed onto the device

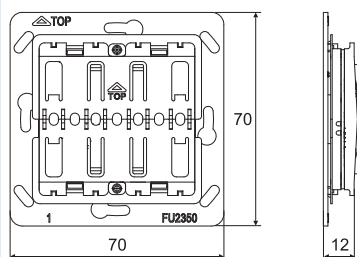
Merten	Gira	Busch Jaeger	Jung	Berker	Siemens	Elko	Kopp
1-M	Standard 55	Carat*	AS	S.1	Delta line	RS16	ALASKA
Atelier M	E2	Pur Edelstahl*	A 500	B.1	Delta vita	Plus	
M-Smart	Event	Solo*	A plus	B.3	Delta miro		
M-Arc	Esprit	Future*	A creation	B.7 Glas	Delta profil**		
M-Star	Profil 55	Future linear*	A plus				
M-Plan	E22	CZ Future*					
M-Plan II							
M-Plan Metall							
M-Plan Glas							

* only with intermediate frame Busch Jaeger

** only with intermediate frame Siemens



Push-button universal 55x55 mm with LED CTAA-01/04-LED, CTAA-02/04-LED, CTAA-04/04-LED



Technical Specifications

Power supply	3V via CR2450N battery
Frequency	868,300MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness, material, used rocker and frame !!)
Service life of the battery	Approx. 10 years (= battery life) according to application, battery manufacturer, time of actuation: typically 100.000 switching operations at room temperature respectively 36.000 blind operations at room temperature respectively 21.000 dimming cycles at 5 seconds dimming time and room temperature
Degree of protection	IP20
Degree of soiling	2
Operating temperature	+5 to +45°C
Storage/transportation temp.	-25 to +70°C
Colour of the push-button base	similar to RAL7035
Colour of the the mounting plate	similar to RAL7035
Size of push-button base	HxWxD - 55 x 55 x12.2mm
Size of the mounting plate	HxWxD - 70 x 70 x 10mm
Approval	Printed onto the device

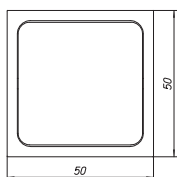
Merten	Gira	Busch Jaeger	Jung	Berker	Siemens	Elko	Kopp
1-M	Standard 55	Carat*	AS	S.1	Delta line	RS16	ALASKA
Atelier M	E2	Pur Edelstahl*	A 500	B.1	Delta vita	Plus	
M-Smart	Event	Solo*	A plus	B.3	Delta miro		
M-Arc	Esprit	Future*	A creation	B.7 Glas	Delta profil**		
M-Star	Profil 55	Future linear*	A plus				
M-Plan	E22	CZ Future*					
M-Plan II							
M-Plan Metall							
M-Plan Glas							

* only with intermediate frame Busch Jaeger

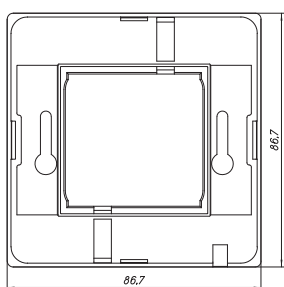
** only with intermediate frame Siemens



Push-button MEM series F9401, F9402, F9404 – Mounting plate MEM series F9400



F9401, F9402, F9404



F9400



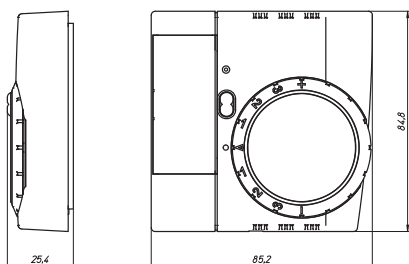
Technical Specifications

Power supply	3V via CR2450N battery
Frequency	868,300MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness, material, used rocker and frame !!)
Service life of the battery	Approx. 10 years (= battery life) according to application, battery manufacturer, time of actuation: typically 100.000 switching operations at room temperature respectively 33.000 blind operations at room temperature respectively 20.000 dimming cycles at 5 seconds dimming time and room temperature
Degree of protection	IP20
Degree of soiling	2
Operating temperature	+5 to +45°C
Storage/transportation temp.	-25 to +70°C
Colour of the push-button base	similar to RAL9003
Colour of the the mounting plate	similar to RAL9003
Size of push-button base	HxWxD - 50 x 50 x 26mm
Size of the mounting plate	HxWxD - 86,7 x 86,7 x 12,8mm
Approval	Printed onto the device

Mounting Frame		Decorative Plastic		Metal Plate	
Style	List No	List	Finish	List No	Finish
Surface Mounting Frame	F9400	CP902WH	White	CP902SS	Stainless Steel
Copa Flush 2 Module	C902	CP902BM	Black Matt	CP902HP	Highly Polished
		CP902GL	Gold Metallic	CP902SB	Satin Bronze
		CP902SL	Silver Metallic	CP902PB	Polished Brass
		CP902BL	Blue Metallic		
		CP902GY	Grey		
Style	List No	List	Finish	List No	Finish
Premera Flush 2 Module	P902	white moulded	no cover plate	white moulded	no cover plate
Premera mix		only - needed		only - needed	



Room Controller CRCA-00/04, CRCA-00/05, CRCA-00/06, CRCA-00/07



Technical Specifications

Power supply 3V via 2x LR03 (AAA)

CRCA-00/04, CRCA-00/05, CRCA-00/06, CRCA-00/07

Channel A:

Temperature range 0 - 40°C
Accuracy $\pm 1^\circ\text{C}$ @ 22°C
Standard setting 21°C, $\pm 3^\circ\text{C}$ variable by adjustment wheel
Hysteresis $\pm 0.5^\circ\text{C}$

CRCA-00/05, CRCA-00/07

Channel B:

Permitted relative air humidity 0-100 %
Operating range 10-95%
Accuracy within the measuring range $\pm 5\%$ rF
Long-term stability at 20-30°C / 20-80% rel.hum. Drift approx. 1.5% per year
Response time approx. 15 seconds
Standard setting relative humidity 50%
Hysteresis $\pm 5\%$

Frequency 868,300 MHz
Type of transmission Bi-directional, via coded telegrams
Indoor range Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Service life of the battery Approx. 5 - 7 years, depending on the type of battery
Degree of protection IP20
Degree of soiling 2
Operating temperature 0 to +40°C
Storage/transportation temp. -25 to +70°C
Colour of the frame White, similar to RAL9010
Dimensions HxWxD - 85 x 86 x 26mm
Approval Printed onto the device

Note

RECOMMENDATIONS for installation:

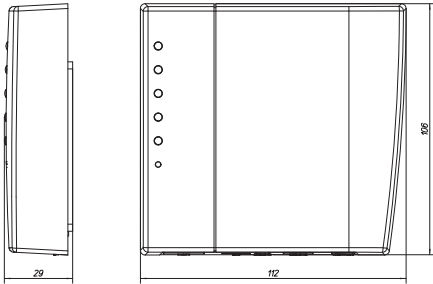
- fix the RC approx. 1.5m above floor level
- at a distance of 0.2m min. from door frames (draft)
- install the room controller opposite the heat source, if possible
- keep ventilation slots of the room controller clear and clean

DO NOT install the device

- at/next to a window
- behind curtains/coat racks
- behind doors
- above/next to heaters, chimneys, air conditioning ...
- above/next to electrical devices (TV, computer...)
- on external walls
- exposed to direct sunlight
- exposed to draft (ventilation)
- on condensing walls - on condensing walls



Smart Home Controller CHCA-00/01



Technical Specifications

Power supply	5VDC, 2A, power unit connector, separate power unit
Power consumption	typical < 2 W (without any device on USB)
Pre-protection	Power circuit breaker 16A, characteristic C

Display (for more details please see mounting instructions):

Symbol	LED
	Power
	Network connection
	RF Traffic
	System message
	Battery status (assigned sensors)

Symbol	Push-button
	Recovery

MRF	Icon	Function
	Double Click on Icon in MRF	Identify Smart Home Controller
>MRF2.19 flashing: identify		secs green

Connections:

USB A:	Not used
USB B:	Not used
MICRO-SD:	Used for reset-purposes only
LAN:	Automatic assignment of the IP address via DHCP username: admin password: admin

Minimum distance to other devices (e.g.: WLAN router):	> 0.5 m
Boot time:	< 6 min.
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Frequency	868,300MHz
Colour of the enclosure	similar to RAL9010
Degree of protection	IP20
Degree of soiling	2
Operating temperature	+5 to +45°C
Storage/transportation temp.	-25 to +70°C
Dimensions of the enclosure	LxWxH - 112 x 106 x 29 mm
Approval	Printed onto the device

For SHC projects with ECI's please read FAQ on eaton.eu/xcomfort before ordering!



Room Manager CRMA-00/01 up to CRMA-00/10, CRMA-00/19 up to CRMA-00/122 (without Bluetooth), CRMA-00/11 up to CRMA-00/18 (with Bluetooth)

CRMA-00/02



Technical Specifications

Power supply	230VAC/50Hz
Power consumption:	
CRMA-00/01 up to CRMA-00/10	1VA (without Bluetooth)
CRMA-00/19 up to CRMA-00/22	1VA (without Bluetooth)
CRMA-00/11 up to CRMA-00/18	1.5VA (with Bluetooth, Bluetooth activated)
Pre-protection	Power circuit breaker 16A, characteristic C
Frequency	868,300MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Power reserve - time:	24h
Interfaces	IR-interface for system-update EATON RF for configuration/operation
Degree of protection	IP20
Degree of soiling	2
Operating temperature	+5 to +45°C
Storage/transportation temp.	-25 to +70°C
Colour of the enclosure	- similar to RAL9006: CRMA-00/01, CRMA-00/03 up to CRMA-00/06, CRMA-00/11 up to CRMA-00/14, CRMA-00/19 up to CRMA-00/22 - similar to RAL9016: CRMA-00/02, CRMA-00/07 up to CRMA-00/10, CRMA-00/15 up to CRMA-00/18
Dimensions of the enclosure	HxWxD - 158 x 116 x 27 mm
Approval	Printed onto the device

Notes on the use of an internal temperature sensor (room1)

RECOMMENDATIONS for installation:

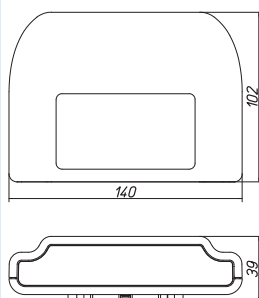
- fix the RM approx. 1.5m above floor level
- at a distance of 0.2m min. from door frames (draft)
- install the Room Manager opposite the heating source, if possible
- keep ventilation slots of the room controller clear and clean

DO NOT install the device

- at/next to a window
- behind curtains/coat racks
- behind doors
- above/next to heaters, chimneys, air conditioning ...
- above/next to electrical devices (TV, computer...)
- on external walls
- exposed to direct sunlight
- exposed to draft (ventilation)
- on condensing walls



Ethernet Communication Interface ECI LAN, CCIA-02/01, CCIA-03/01

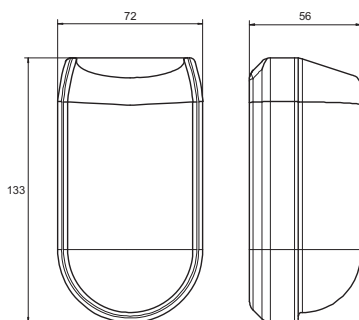


Technical Specifications

Power supply	5-24VDC
CCIA-02/01:	- TRS connector, separate mains adapter 12VDC (118809) - Mini USB connector, separate mains adapter (155449) or USB of PC - TRS connector/mini USB to be selected via a switch
CCIA-03/01:	PoE, 36-57VDC
Power consumption	2.5 W
Display	
LED orange, LAN PWR:	ECI supply and LAN connection ok
LED green, LAN Data:	ECI LAN data are being transmitted
LED red, Prog ON/OFF:	- Ident 25x flashing, for ECI identification - Data transmission RF - ECI - Reset ECI
Operation	
Supply switch:	To select supply via TRS connector or mini USB (CCIA-02/01)
Prog ON/OFF push-button:	Reset
LAN	RJ45 connector
Network - factory setting	IPv4: 192.168.42.30 IPv6: fd88:8d0d:632a:d855::30/64 username: admin password: admin
Frequency	868,300MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Colour of the enclosure	similar to RAL9001
Degree of protection	IP20
Degree of soiling	2
Operating temperature	+5 to +55°C
Storage/transportation temp.	-25 to +70°C
Dimensions of the enclosure	LxWxD - 140 x 102 x 39 mm
Approval	Printed onto the device



PIR Motion Sensor CBMA-02/01



Technical Specifications

Power supply	3V über 2x LR03 (AAA)
Motion sensor	PIR sensor
Area covered	110°, max. 12m at a mounting height of 2.2m
Time-setting for Channel A	30s, 1min, 2min, 3min, 5min, 10min, 20min, 30min
Setting for brightness Channel A	Night, twilight, day
Setting for impulses	1,3,5,7
Frequency	868,300MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Service life of the battery and on the type of battery	Approx. 2 to 3 years, depending on the application
Degree of protection	IP20
Degree of soiling	2
Operating temperature	+5 to +40°C
Storage/transportation temp.	-25 to +70°C
Colour of the enclosure	similar to RAL9003
Dimensions of the enclosure	HxWxD - 133 x 72 x 56mm
Approval	Printed onto the device

DIP-Switch	Assignment/Operation		Channel A		Channel B		Impulses		Brightness		Turn-off delay		Test-LED		Not used	
	1	2	3	4	5	6	7	8	9	10	11	12				
1...ON	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
0...OFF	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mode																
Assignment	<input type="checkbox"/>															
Operation	<input type="checkbox"/>															
Function																
NO channel selected	<input type="checkbox"/>		<input type="checkbox"/>													
Only channel A	<input type="checkbox"/>		<input type="checkbox"/>													
Only channel B	<input type="checkbox"/>		<input type="checkbox"/>													
Channel A+B	<input type="checkbox"/>		<input type="checkbox"/>													
Impulses																
	1		<input type="checkbox"/>		<input type="checkbox"/>											
	3		<input type="checkbox"/>		<input type="checkbox"/>											
	5		<input type="checkbox"/>		<input type="checkbox"/>											
	7		<input type="checkbox"/>		<input type="checkbox"/>											
Brightness																
	Night		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>					
	Twilight		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>					
	Day & night		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>					
	No function		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>					
Turn-off delay																
	0		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		30 s			
	1		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		1 min.			
	2		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		2 min.			
	3		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		3 min.			
	5		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		5 min.			
	10		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		10 min.			
	20		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		20 min.			
	30		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		30 min.			
Test-LED																
	0		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		LED Off			
	1		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		LED On			
Select Turn-off delay																
	0		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		See Turn-off delay 8-10			
	1		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		3 s			



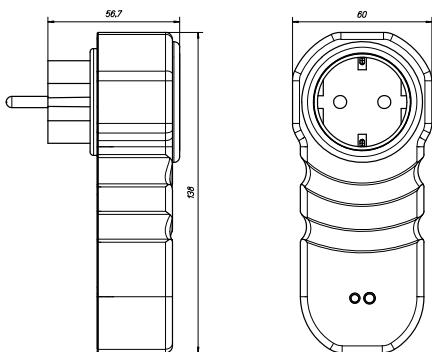
Power Supply Unit for Motion Sensor CMMZ-00/08



Technical Specifications

Power supply	230VAC, 50Hz
Connections	Connecting wires 1.5mm ²
Output voltage	max. 14.5 VAC (no-load operation)
Output power	max. 0.25VA, short-circuit proof max. 1 PIR-motion sensor, CBMA-02/01
Pre-protection	Power circuit breaker 16A, characteristic B
Degree of protection	IP20
Degree of soiling	2
Operating temperature	-5 to +45°C
Storage /transportation temp.	-25 to +70°C
Colour of the frame	RAL7035
Size of the frame	HxWxD - 48.6 x 45.3 x 26.2mm
Length of the connecting wires	150mm
Approval	Printed onto the device

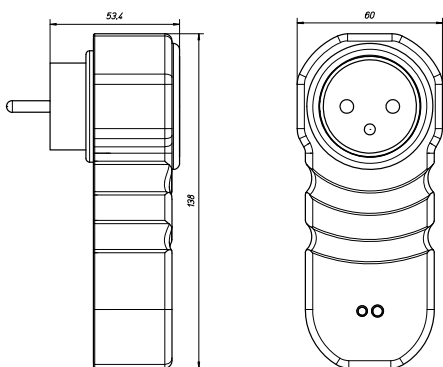
Switching Actuator Adapter Plug - Side Earthings CSAP-01/01



Technical Specifications

Power supply	230VAC, 50Hz
Plug system	Side earthings, with children protection
Load	230VAC, 50Hz, 8A resistive load Internal protection through thermal protection
Pre-protection	Power circuit breaker 16A, characteristic C
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Degree of protection	IP20
Degree of soiling	2
Operating temperature	-5 to +45°C
Storage /transportation temp.	-25 to +70°C
Colour of the frame	White, similar to RAL9016
Size of the frame	HxWxD - 138 x 60 x approx.57mm
Approval	Printed onto the device

Switching Actuator Adapter Plug with Earthing Pin CSAP-01/02

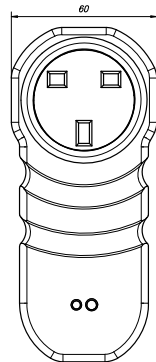
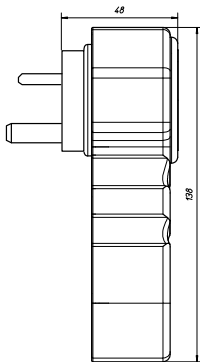


Technical Specifications

Power supply	230VAC, 50Hz
Plug system	Earthing pin, with children protection
Load	230VAC, 50Hz, 8A resistive load Internal protection through thermal protection
Pre-protection	Power circuit breaker 16A, characteristic C
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Degree of protection	IP20
Degree of soiling	2
Operating temperature	-5 to +45°C
Storage /transportation temp.	-25 to +70°C
Colour of the frame	White, similar to RAL9016
Size of the frame	HxWxD - 138 x 60 x approx.54mm
Approval	Printed onto the device



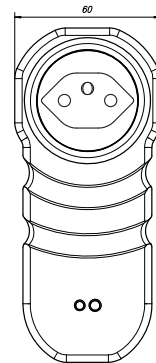
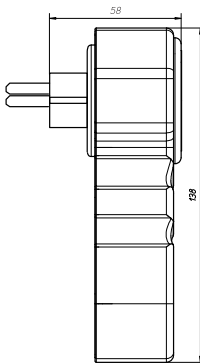
Switching Actuator Adapter Plug - British Standard CSAP-01/03



Technical Specifications

Power supply	230VAC, 50Hz
Plug system	British Standard, with children protection
Load	230VAC, 50Hz, 8A resistive load Internal protection through thermal protection
Pre-protection	Power circuit breaker 16A, characteristic C
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Degree of protection	IP20
Degree of soiling	2
Operating temperature	-5 to +45°C
Storage /transportation temp.	-25 to +70°C
Colour of the frame	White, similar to RAL9016
Size of the frame	HxWxD - 138 x 60 x 48mm
Approval	Printed onto the device

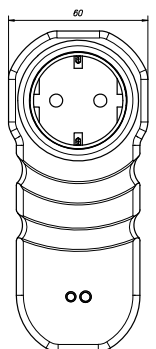
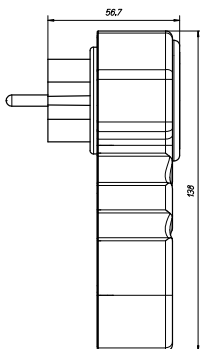
Switching Actuator Adapter Plug - S13 CSAP-01/04



Technical Specifications

Power supply	230VAC, 50Hz
Plug system	Switzerland S13, with children protection
Load	230VAC, 50Hz, 8A resistive load Internal protection through thermal protection
Pre-protection	Power circuit breaker 16A, characteristic C
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Degree of protection	IP20
Degree of soiling	2
Operating temperature	-5 to +45°C
Storage /transportation temp.	-25 to +70°C
Colour of the frame	White, similar to RAL9016
Size of the frame	HxWxD - 138 x 60 x approx. 76mm
Approval	Printed onto the device

Switching Actuator Adapter Plug - Side Earthings CDAP-01/11

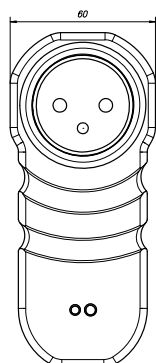
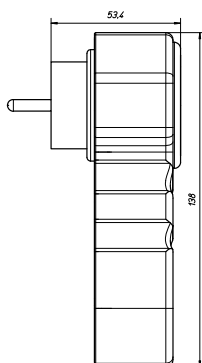


Technical Specifications

Power supply	230VAC, 50Hz
Plug system	Side earthings, with children protection
Load	250W 230VAC, 50Hz, incandescent lamps or electronic transformers, Reversed phase control, Internal overload and short-circuit protection
Pre-protection	Power circuit breaker 16A, characteristic C
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Degree of protection	IP20
Degree of soiling	2
Operating temperature	-5 to +45°C
Storage /transportation temp.	-25 to +70°C
Colour of the frame	White, similar to RAL9016
Size of the frame	HxWxD - 138 x 60 x approx. 57mm
Approval	Printed onto the device



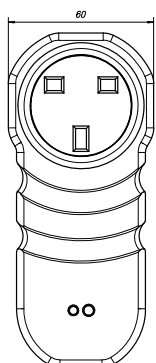
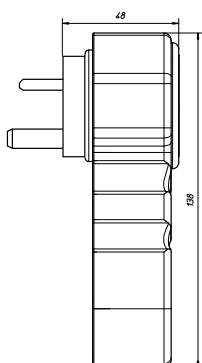
Dimming Actuator Adapter Plug - Earthing Pin CDAP-01/12



Technical Specifications

Power supply	230VAC, 50Hz
Plug system	Earthing pin, with children protection
Load	250W 230VAC, 50Hz, incandescent lamps or electronic transformers, Reversed phase control, Internal overload and short-circuit protection
Pre-protection	Power circuit breaker 16A, characteristic C
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Degree of protection	IP20
Degree of soiling	2
Operating temperature	-5 to +45°C
Storage /transportation temp.	-25 to +70°C
Colour of the frame	White, similar to RAL9016
Size of the frame	HxWxD - 138 x 60 x approx.54mm
Approval	Printed onto the device

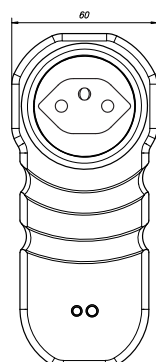
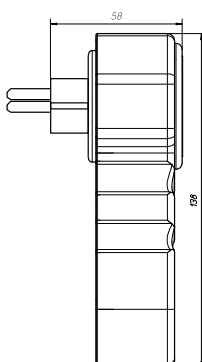
Dimming Actuator Adapter Plug - British Standard CDAP-01/13



Technical Specifications

Power supply	230VAC, 50Hz
Plug system	British Standard, with children protection
Load	250W 230VAC, 50Hz, incandescent lamps or electronic transformers, Reversed phase control, Internal overload and short-circuit protection
Pre-protection	Power circuit breaker 16A, characteristic C
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Degree of protection	IP20
Degree of soiling	2
Operating temperature	-5 to +45°C
Storage /transportation temp.	-25 to +70°C
Colour of the frame	White, similar to RAL9016
Size of the frame	HxWxD - 138 x 60 x 48mm
Approval	Printed onto the device

Dimming Actuator Adapter Plug - S13 CDAP-01/14

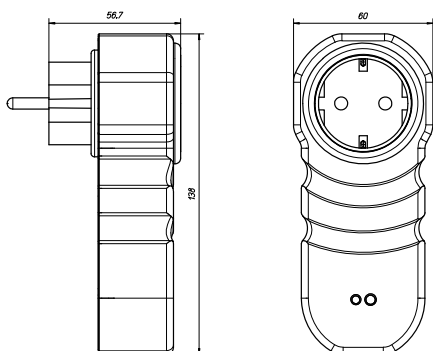


Technical Specifications

Power supply	230VAC, 50Hz
Plug system	Earthing pin, with children protection
Load	250W 230VAC, 50Hz, incandescent lamps or electronic transformers, Reversed phase control, Internal overload and short-circuit protection
Pre-protection	Power circuit breaker 16A, characteristic C
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Degree of protection	IP20
Degree of soiling	2
Operating temperature	-5 to +45°C
Storage /transportation temp.	-25 to +70°C
Colour of the frame	White, similar to RAL9016
Size of the frame	HxWxD - 138 x 60 x approx. 76mm
Approval	Printed onto the device



Energy Meter Sensor Adapter Plug - Side Earthings CEMP-01/11

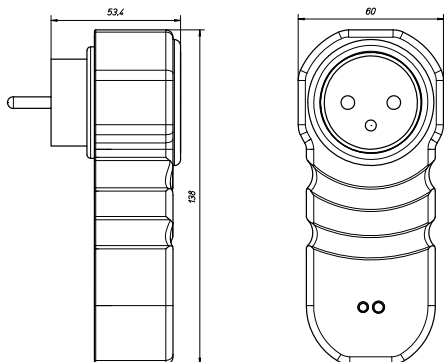


Technical Specifications

Power supply	230VAC, 50Hz
Plug system	Side earthings, with children protection
Power consumption	0.42W
Max. current	16 A
Min. power	>3 W
Max. power	≤3680 W
Accuracy	5% for 230W – 3680W (-5 to 45°C)
Units of measurement	Energy in Wh Current in A Voltage in V Effective power in W
Pre-protection	Power circuit breaker 16A, characteristic C
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range *	Typically 15 - 25m, 1 wall + 1 ceiling (depending on wall thickness and material !!)
Degree of protection	IP20
Degree of soiling	2
Operating temperature	-5 to +40°C
Storage /transportation temp.	-25 to +70°C
Colour of the frame	White, similar to RAL9016
Size of the frame	HxWxD - 138 x 60 x approx. 57mm
Approval	Printed onto the device

* Information: For technical reasons, the CEMP-01/11 energy meter sensor features a shorter RF range than usual xComfort standard products. "Routing" the signal may therefore be necessary in cases where the direct RF range is not sufficient. However, this does not impair the functionality of the energy meter function and will not be accepted as a reason for complaint.

Energy Meter Sensor Adapter Plug - Earthing Pin CEMP-01/12



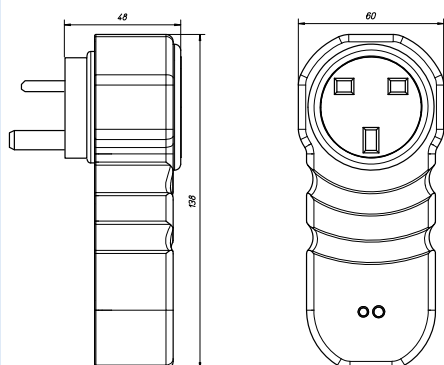
Technical Specifications

Power supply	230VAC, 50Hz
Plug system	Earthing pin, with children protection
Power consumption	0.42W
Max. current	16 A
Min. power	>3 W
Max. power	≤3680 W
Accuracy	5% for 230W – 3680W (-5 to 45°C)
Units of measurement	Energy in Wh Current in A Voltage in V Effective power in W
Pre-protection	Power circuit breaker 16A, characteristic C
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range *	Typically 15 - 25m, 1 wall + 1 ceiling (depending on wall thickness and material !!)
Degree of protection	IP20
Degree of soiling	2
Operating temperature	-5 to +40°C
Storage /transportation temp.	-25 to +70°C
Colour of the frame	White, similar to RAL9016
Size of the frame	HxWxD - 138 x 60 x approx. 54mm
Approval	Printed onto the device

* Information: For technical reasons, the CEMP-01/12 energy meter sensor features a shorter RF range than usual xComfort standard products. "Routing" the signal may therefore be necessary in cases where the direct RF range is not sufficient. However, this does not impair the functionality of the energy meter function and will not be accepted as a reason for complaint.



Energy Meter Sensor Adapter Plug - British Standard CEMP-01/13

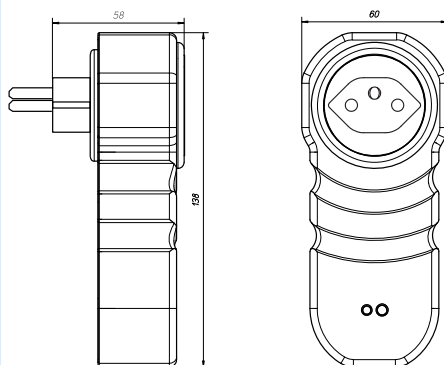


Technical Specifications

Power supply	230VAC, 50Hz
Plug system	British Standard, with children protection
Power consumption	0.42W
Max. current	13 A
Min. power	>3 W
Max. power	≤2990W
Accuracy	5% for 230W – 2990W (-5 to +45°C)
Units of measurement	Energy in Wh Current in A Voltage in V Effective power in W
Pre-protection	Power circuit breaker 16A, characteristic C
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range *	Typically 15 - 25m, 1 wall + 1 ceiling (depending on wall thickness and material !!)
Degree of protection	IP20
Degree of soiling	2
Operating temperature	-5 to +40°C
Storage /transportation temp.	-25 to +70°C
Colour of the frame	White, similar to RAL9016
Size of the frame	HxWxD - 138 x 60 x 48mm
Approval	Printed onto the device

* Information: For technical reasons, the CEMP-01/13 energy meter sensor features a shorter RF range than usual xComfort standard products. "Routing" the signal may therefore be necessary in cases where the direct RF range is not sufficient. However, this does not impair the functionality of the energy meter function and will not be accepted as a reason for complaint.

Energy Meter Sensor Adapter Plug - S13 CEMP-01/14



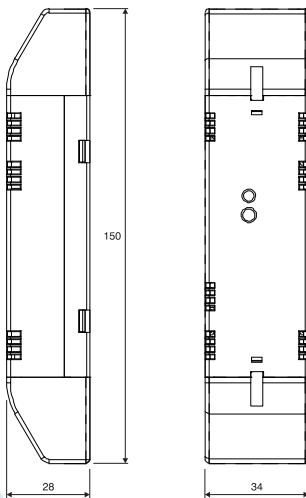
Technical Specifications

Power supply	230VAC, 50Hz
Plug system	Earthing pin, with children protection
Power consumption	0.42W
Max. current	10 A
Min. power	>3 W
Max. power	≤2300W
Accuracy	5% for 230W – 2300W (-5 to +45°C)
Units of measurement	Energy in Wh Current in A Voltage in V Effective power in W
Pre-protection	Power circuit breaker 16A, characteristic C
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range *	Typically 15 - 25m, 1 wall + 1 ceiling (depending on wall thickness and material !!)
Degree of protection	IP20
Degree of soiling	2
Operating temperature	-5 to +40°C
Storage /transportation temp.	-25 to +70°C
Colour of the frame	White, similar to RAL9016
Size of the frame	HxWxD - 138 x 60 x approx. 76mm
Approval	Printed onto the device

* Information: For technical reasons, the CEMP-01/14 energy meter sensor features a shorter RF range than usual xComfort standard products. "Routing" the signal may therefore be necessary in cases where the direct RF range is not sufficient. However, this does not impair the functionality of the energy meter function and will not be accepted as a reason for complaint.



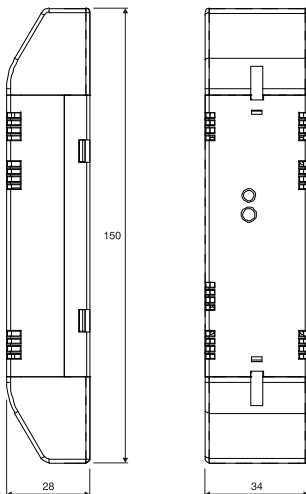
Analogue Input CAEE-02/01



Technical Specifications

Power supply	12-24VDC, external power supply unit
Power consumption	0.25VA (without sensors)
Power supply for sensors	External power supply unit looped through the device
Fine-wire fuse in the device	T 315 mA
Inputs: IN1, IN2	0-10VDC, 0-20mA, 4-20mA, PT1000 in MRF configurable for each input
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Degree of protection	IP20
Degree of soiling	2
Operating temperature	-5 to +45°C
Storage /transportation temp.	-25 to +70°C
Colour of the frame	Grey, RAL7035
Size of the frame	HxWxD - 150 x 34 x 28mm
Approval	Printed onto the device

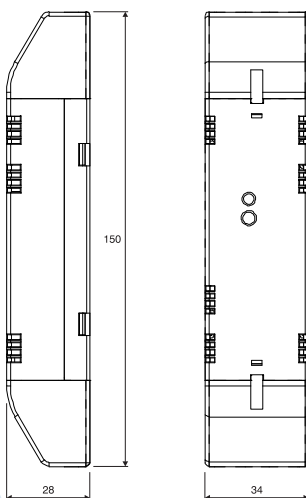
Analogue Actuator 0-10VDC CAEE-01/01



Technical Specifications

Power supply	230VAC, 50Hz
All connections	Single-wired 1.5mm ² connections
Load	230VAC, 50Hz, 8A resistive load The device switches L via LA Internal protection through thermal protection
Pre-protection	Power circuit breaker 16A, characteristic C
Control output	0-10VDC, max. 20mA internal electronic overload protection
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Degree of protection	IP20
Degree of soiling	2
Operating temperature	-5 to +45°C
Storage /transportation temp.	-25 to +70°C
Colour of the frame	Grey, RAL7035
Size of the frame	HxWxD - 150 x 34 x 28mm
Approval	Printed onto the device

Analogue Actuator 1-10VDC CAEE-01/02, CAEE-01/05

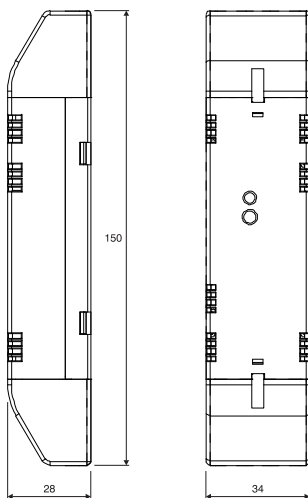


Technical Specifications

Power supply	230VAC, 50Hz
All connections	Single-wired 1.5mm ² connections
Load	230VAC, 50Hz, 8A resistive load The device switches L via LA Internal protection through thermal protection
Pre-protection	Power circuit breaker 16A, characteristic C
Control output	1-10VDC, max. 20mA internal electronic overload protection
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Degree of protection	IP20
Degree of soiling	2
Operating temperature	-5 to +45°C
Storage /transportation temp.	-25 to +70°C
Colour of the frame	Grey, RAL7035
Size of the frame	HxWxD - 150 x 34 x 28mm
Approval	Printed onto the device



Dimming Actuator CDAE-01/01, CDAE-01/02, CDAE-01/03



Technical Specifications

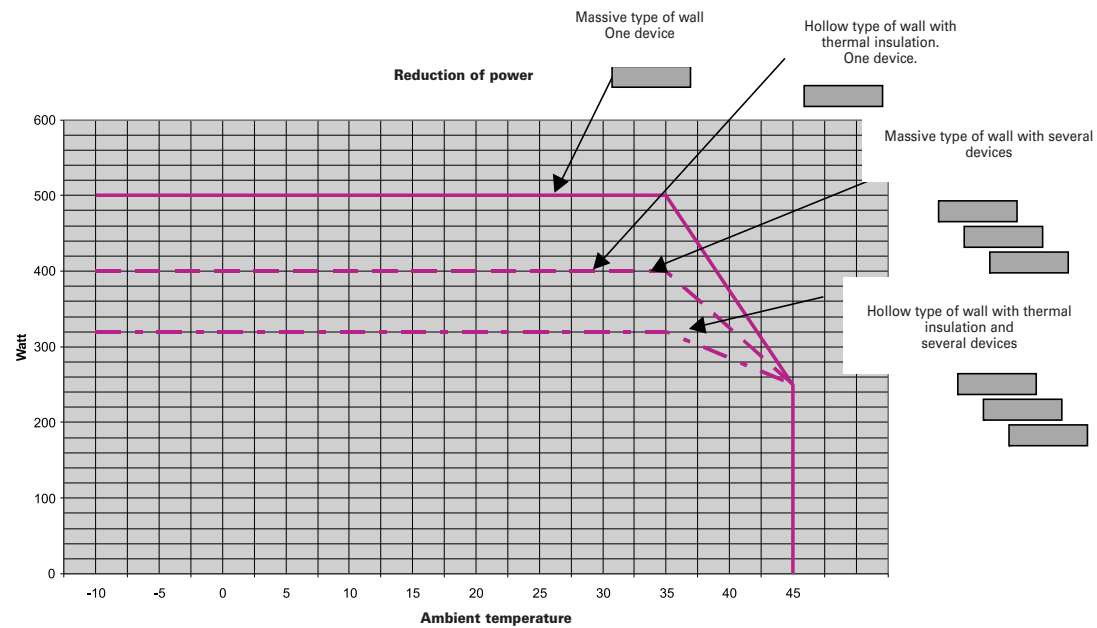
Power supply	230VAC, 50Hz
All connections	Single-wired 1.5mm ² connections
Load	CDAE-01/01 230VAC, 50Hz, 40-500W incandescent lamps or electronic transformers, trailing-edge, NO inductive LOADS!!! Internal overload and short-circuit protection
	CDAE-01/02, CDAE-01/03 230VAC, 50Hz, 250W incandescent lamps, electronic transformers, trailing-edge 230VAC, 50Hz, 40W (typical) "dimmable" energy-saving lamps or LED lamps for reversed phase control dimming *) NO inductive LOADS!!! Internal overload and short-circuit protection
Dim level	CDAE-01/02: 20-100% CDAE-01/03: 0-55%
Pre-protection	Power circuit breaker 16A, characteristic C
ATTENTION: Keep at least 35 mm distance in case several devices are used. Do not place the device near heat sources (transformers, halogen lamps etc.), keep a distance of approx. 200 mm. Do not place dimming actuators on top of each other. Allow for sufficient heat draw-off. Check max. operating temperature, reduce power where necessary (see wiring diagram)	
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Degree of protection	IP20
Degree of soiling	2
Operating temperature	-5 to +45°C
Storage /transportation temp.	-25 to +70°C
Colour of the frame	Grey, RAL7035
Size of the frame	HxWxD - 150 x 34 x 28mm
Length of the connection wires	150mm
Approval	Printed onto the device

*) As a general rule, only "dimmable" energy-saving lamps or "dimmable" LED lamps suitable for reversed phase control dimming can be dimmed. This is explicitly stated on the packaging. The max. dimmable power and dimming result may to a large extent depend on the type of lamps or LEDs used, or on the manufacturer. An insufficient dimming result in connection with LED lamps or energy-saving lamps is not a reason for complaint about the CDAE-01/02 or CDEA-01/03 dimming actuator, it will not be accepted as such and is therefore excluded from every type of warranty.

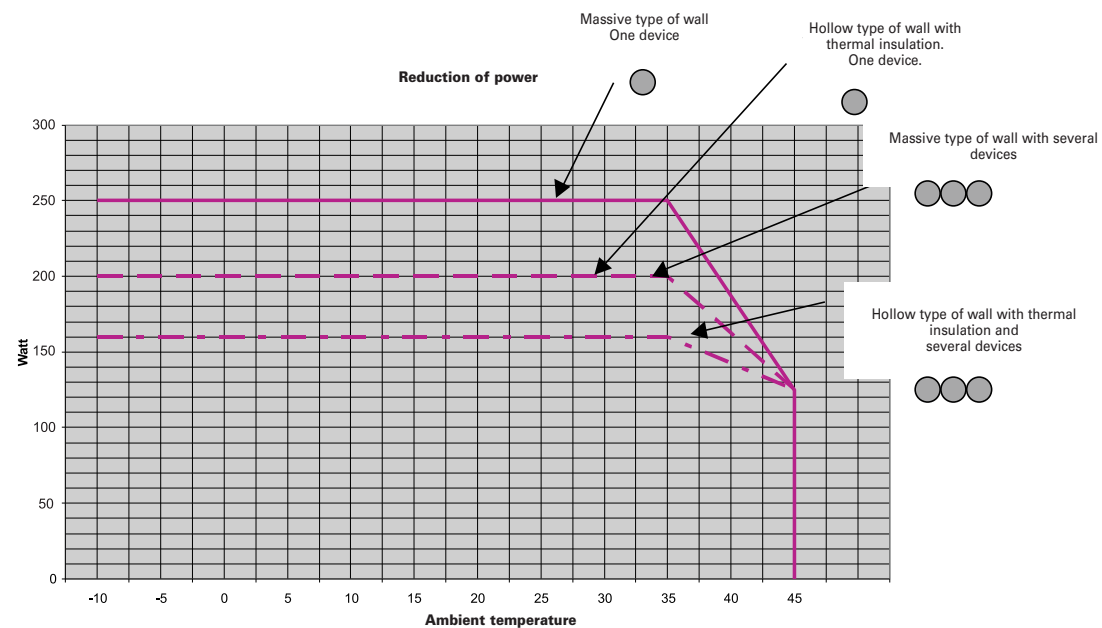


Dimming Actuator CDAE-01/01, CDAE-01/02 (Continuation)

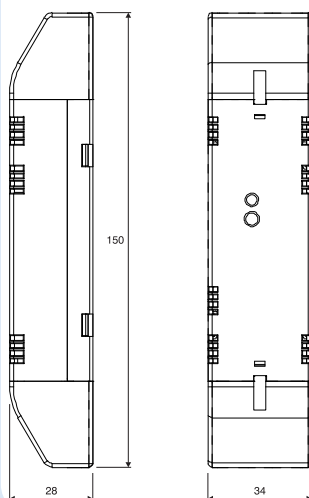
Reduction of power CDAE-01/01



Reduction of power CDAE-01/02



Impulszähleingang CIZE-02/01

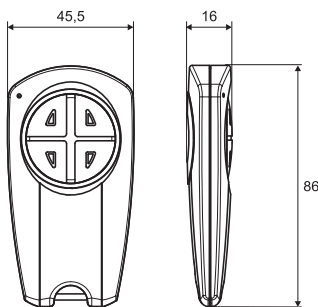


Technical Specifications

Power supply	12-24VDC, external power supply unit
Power consumption	0.25VA
Fine-wire fuse in the device	T 315 mA
Inputs: IN1, IN2	S0 according to DIN43864
Max. frequency input	16 Hz
Kind of counter	incremental
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Degree of protection	IP20
Degree of soiling	2
Operating temperature	-5 to +45°C
Storage /transportation temp.	-25 to +70°C
Colour of the frame	Grey, RAL7035
Size of the frame	HxWxD - 150 x 34 x 28mm
Approval	Printed onto the device



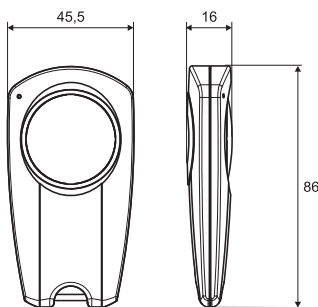
2-Channel Remote Control CHSZ-02/02



Technical Specifications

Power supply	3V via battery CR2430
Channels	2
Display: 1 yellow LED	Indication of function and reception
Operation	2 operating keys (with 2 functions each)
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Service life of the battery	Approx. 3-5 years depending on application and type of battery
Degree of protection	IP20
Degree of soiling	2
Operating temperature	+5 to +40°C
Storage/transportation temp.	-25 to +70°C
Colour of the frame	similar to RAL7037
Dimensions	HxWxD - 86 x 45,5 x 16mm
Approval	Printed onto the device

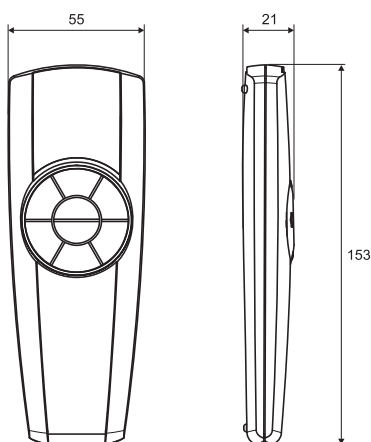
1-Channel Alarm Remote Control CHSZ-01/05



Technical Specifications

Power supply	3V via battery CR2430
Channels	1
Display: 1 yellow LED	Indication of function and reception
Operation	1 operating key
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Service life of the battery	Approx. 3-5 years depending on application and type of battery
Degree of protection	IP20
Degree of soiling	2
Operating temperature	+5 to +40°C
Storage/transportation temp.	-25 to +70°C
Colour of the frame	similar to RAL7037
Dimensions	HxWxD - 86 x 45,5 x 16mm
Approval	Printed onto the device

12-Channel Remote Control CHSZ-12/03

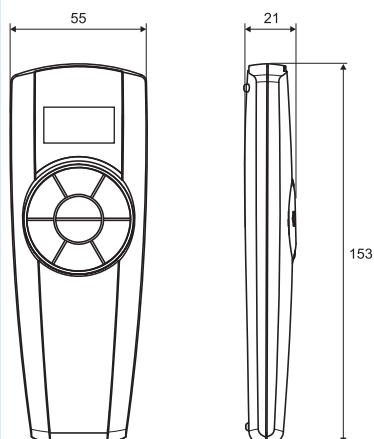


Technical Specifications

Power supply	3V via batteries LR03 (AAA)
Channels	6 x 2 =12
Displays	1 LED yellow 1 LED green
Operation	Level 1: Display of function and reception Level 2: Display of function and reception 2x6 pre-selection keys 1 operating key (2 functions)
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Service life of the battery	Approx. 3-5 years depending on application and type of battery
Degree of protection	IP20
Degree of soiling	2
Operating temperature	+5 to +40°C
Storage/transportation temp.	-25 to +70°C
Colour of the frame	similar to RAL7037
Dimensions	HxWxD - 153 x 55 x 21mm
Approval	Printed onto the device



12-Channel Remote Control with Display CHSZ-12/04

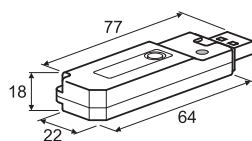


Technical Specifications

Power supply	3V via batteries LR03 (AAA)
Channels	12
Displays	
LCD-Display	Background lighting blue
1 LED yellow	Display of function and reception
Operation	12 functions, in menu selectably
Power reserve of time setting	2 minutes for the battery change
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Service life of the battery	Approx. 1-2 years depending on application, setting of display and type of battery
Interfaces	IR-interface for system-update EATON RF for configuration/operation
Degree of protection	IP20
Degree of soiling	2
Operating temperature	+5 to +45°C
Storage/transportation temp.	-25 to +70°C
Colour of the frame	similar to RAL7037
Dimensions	HxWxD - 153 x 55 x 21mm
Approval	Printed onto the device



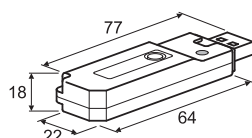
USB Configuration Stick CKOZ-00/13



Technical Specifications

Power supply	via PC/Laptop
Connection	USB
Indication	2 Status LEDs
Frequenzy	868,300 MHz
Type of transmission	Bi-directional, via encoded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Degree of protection	IP20
Operating temperature	+5 to +40°C
Storage/transportation temp.	-25 to +70°C
Dimensions of the enclosure	LxWxH - 77 x 22 x 18 mm
Approval:	Printed onto the device

USB Communication Stick CKOZ-00/14

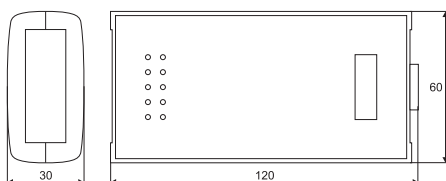


Technical Specifications

Power supply	via PC/Laptop
Connection	USB
Indication	3 Status LEDs
Frequenzy	868,300 MHz
Type of transmission	Bi-directional, via encoded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Degree of protection	IP20
Operating temperature	+5 to +40°C
Storage/transportation temp.	-25 to +70°C
Dimensions of the enclosure	LxWxH - 77 x 22 x 18 mm
Approval:	Printed onto the device



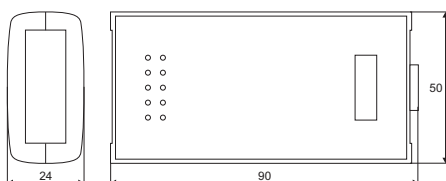
RS232 Configuration Interface CRSZ-00/01



Technical Specifications

Power supply	Via storage-battery pack Rechargeable through power pack unit included in delivery
Connections	12VDC jack, 140 mA Data via 9-pole SUBD 3 status LEDs
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling
Independence of storage batt.	Approx. 6h in permanent service
Degree of protection	IP20
Degree of soiling	2
Operating temperature	+5 to +40°C
Storage/transportation temp.	-25 to +70°C
Colour of the frame	Grey, similar to RAL7035
Overall dimensions	LxWxH - 120 x 60 x 30mm
Approval	Printed onto the device

Communication Interface USB/RS232 CKOZ-00/03, CKOZ-00/11



Technical Specifications

USB

Power supply	of PC - USB-interface, 250mW
Power supply and data cable	USB-cable (A-connector, B-connector)

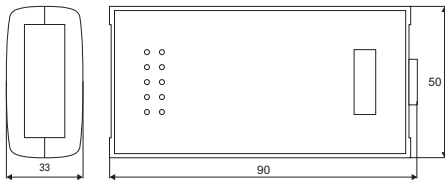
RS232

Power supply	Power supply unit with USB (A-jack), (5VDC jack, 50mA)
Supply cable	USB-cable (A-connector, B-connector)
Data cable	Cable (RJ12-connector, 9-pole SubD-jack)
<i>RS232 Set of accessories (CKOZ-00/04, CKOZ-00/05) to be ordered separately!!!!</i>	

Indication	2 Status LEDs
Frequency	868,300MHz
Type of transmission	Bi-directional, via encoded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Degree of protection	IP20
Degree of soiling	2
Operating temperature	+5 to +40°C
Storage/transportation temp.	-25 to +70°C
Colour of the enclosure	RAL7035
Total dimensions	HxWxD - 90 x 50 x 24mm
Approval	Printed onto the device



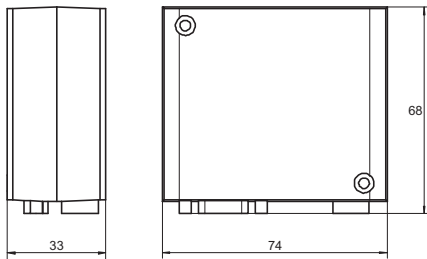
BOS/COS Interface CKOZ-02/08



Technical Specifications

Power supply	Power supply unit with USB (A-jack), (5VDC jack, 50mA)
Supply cable	USB-cable (A-connector, B-connector)
Power consumption	5VDC/115mA
Input	A, B, RJ11 (potential-free contacts)
Indication	No
Frequency	868,300MHz
Type of transmission	Bi-directional, via encoded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Degree of protection	IP20
Degree of soiling	2
Operating temperature	+5 to +40°C
Storage/transportation temp.	-25 to +70°C
Colour of the enclosure	RAL7035
Total dimensions	HxWxD - 90 x 50 x 24mm
Approval	Printed onto the device

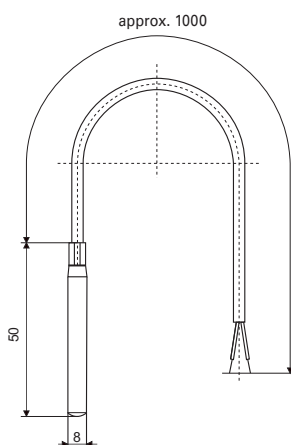
GSM-Modem CKOZ-00/02, CKOZ-00/06



Technical Specifications

Power supply	230VAC, 50Hz power supply unit, included in the scope of delivery (12VDC, 1000mA), cable with RJ12-connector
Connections	FME-connector for external aerial Mini Sim card reader RS232 with 9-pole SubD jack
Frequency	GSM 900/1800 MHz, dual band
Type of transmission	GPRS Class 8
Indication	Status LED
Degree of protection	IP20
Degree of soiling	2
Operating temperature	-20 to +55°C
Storage/transportation temp.	-25 to +70°C
Colour of the enclosure	similar to RAL9004
Dimensions of the enclosure	HxWxD - 68 x 74 x 33mm
Approval	Printed onto the device

Temperature Sensor CSEZ-01/01

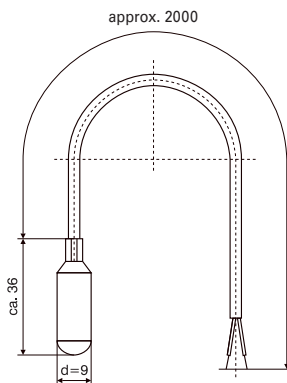


Technical Specifications

Power supply	Via temperature input channel CTEU-02/01
Cable:	Silicone, black 2x 0.22mm², 1m
Measuring sleeve:	Stainless steel, diam. =6mm, l=50mm
Measuring range:	-50 to +200°C
Sensor element:	PT1000
Approval	Printed onto the device



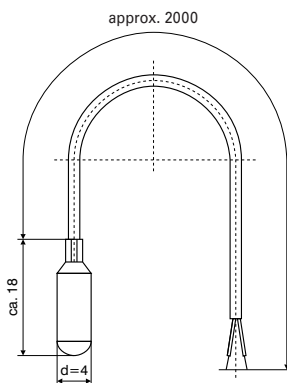
Temperature Sensor CSEZ-01/05



Technical Specifications

Power supply	Via temperature input channel CTEU-02/01
Cable:	PVC, black 2x 0.22mm ² , 2m
Measuring sleeve:	Stainless steel, diam. ≈9mm, l≈approx. 36mm
Measuring range:	-50 to +105°C
Sensor element:	PT1000
Approval	Printed onto the device

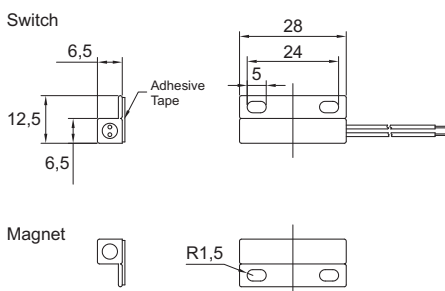
Temperature Sensor CSEZ-01/36



Technical Specifications

Power supply	Via temperature input channel CTEU-02/01
Cable:	Teflon, white 2x 0.14mm ² , 2m
Measuring sleeve:	Stainless steel, diam. ≈4mm, l≈approx. 18mm
Measuring range:	-50 to +200°C
Sensor element:	PT1000
Approval	Printed onto the device

Surface-mounted Window Contact CSEZ-01/06, CSEZ-01/25

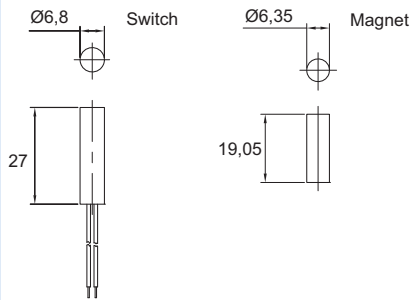


Technical Specifications

Power supply	via binary input CBEU-02/02
Contact connections	2-wire cable, white
Max. distance	15 mm (contact/magnet)
Type of contact	CSEZ-01/06: normally open contact CSEZ-01/25: normally closed contact
Max. contact load	100 VDC, 0.5A
Degree of protection	IP20
Operating temperature	-5 to +45°C
Storage/transportation temp.	-25 to +70°C
Colour of the enclosure	similar to RAL9003
Dimensions contact	HxWxD - 28 x 12.5 x 6.5mm
Length of the connecting wires	2x0.2mm ² , approx. 0.45m
Dimensions of the magnet	HxWxD - 28 x 12.5 x 6.5mm
Approval	Printed onto the device



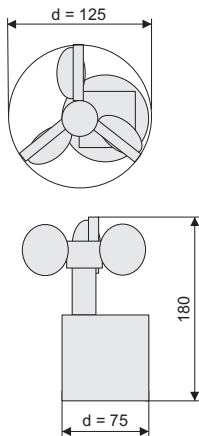
Built-in Window Contact CSEZ-01/07



Technical Specifications

Power supply	via binary input CBEU-02/02
Contact connections	2-wire cable, white
Type of contact	Normally open contact
Max. contact load	100 VDC/VAC, 0.5A
Max. distance	20mm (contact/magnet)
Degree of protection	IP20
Operating temperature	-5 to +45°C
Storage/transportation temp.	-25 to +70°C
Colour of the enclosure	similar to RAL9003
Dimensions of the contact	d=6.8mm L=27mm
Length of the connecting wires	2x0.32mm ² , approx. 0.45m
Dimensions of the magnet	d=6.35mm. L=19mm
Approval	Printed onto the device

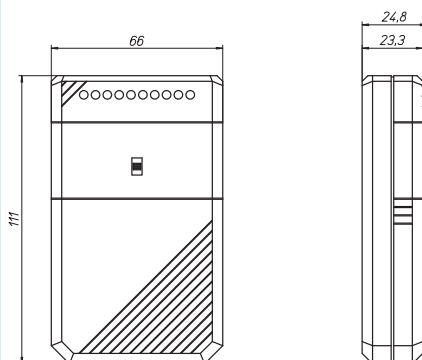
Wind and Rain Sensor CSEZ-02/08, CSEZ-02/09



Technical Specifications

Power supply	230VAC, 50Hz, 27mA (CSEZ-02/09), 17mA (CSEZ-02/08)
Connections	7-pole cable, 1.5mm ² , grey
Load	230VAC, 50Hz, 3A resistive load the device switches L via contacts 3 to 6
Wind speed	Setting range of 3 to 12m/s
Rain sensor	Heated CSEZ-02/08+CSEZ-02/09
Wind sensor	NOT heated CSEZ-02/08 Heated CSEZ-02/09
Time of delay	Wind OFF, approx. 6 min; Rain OFF, approx. 6 min
Cable code	1.... L, 2....N, 3....Wind, 4....no wind, 5....rain, 6....no rain, 7....no function
Degree of protection	IP68
Degree of soiling	2
Operating temperature	-20 to +55°C
Storage/transportation temp.	-25 to +70°C
Colour of the enclosure	similar to RAL6501
Dimensions of the enclosure	HxWxD - 180 x 125 x 125mm
Approval	Printed onto the device

Diagnostic Device CSEZ-01/11

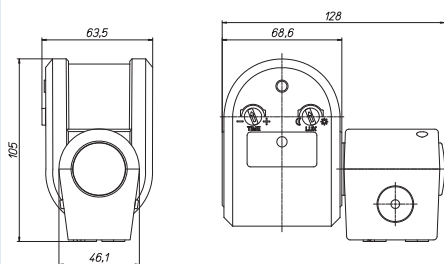


Technical Specifications

Power supply	9V via battery 6LR61
Display	10 LEDs orange, Display of reception quality is an approx. value , accurate determination via CRSZ-00/01. Respect information on the device.
Minimum distance to other electronic devices (RF, TV, monitors etc.):	3-4m
Operation	ON/OFF switch
Frequency range	868 MHz, ±300kHz
Service life of the battery	Approx. 3-5 years depending on application and type of battery
Degree of protection	IP20
Degree of soiling	2
Operating temperature	+5 to +40°C
Storage/transportation temp.	-25 to +70°C
Colour of the frame	similar to RAL7011
Dimensions	HxWxD - 111 x 66 x 25mm
Approval	Printed onto the device



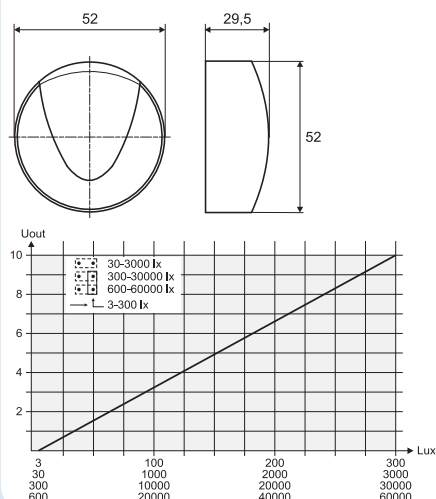
PIR Motion Sensor 200° CSEZ-01/12



Technical Specifications

Power supply	230VAC, 50Hz
Detection of movement	PIR 2x dual element sensor
Area covered	200°, approx. 16m at h=2m
Time settings	approx. 9s - 9min (±30%) continuously variable via potentiometer
Brightness settings	approx. 2 - 2000 lux continuously variable via potentiometer
Direction range of sensor head	160° vertical
Switching output	16A/230VAC potential-carrying
Degree of protection	IP54
Operating temperature	-20 to +50°C
Storage/transportation temp.	-25 to +70°C
Colour of the frame	similar to RAL9016
Dimensions	HxWxD - 63,5 x 128 x 105mm
Approval	Printed onto the device

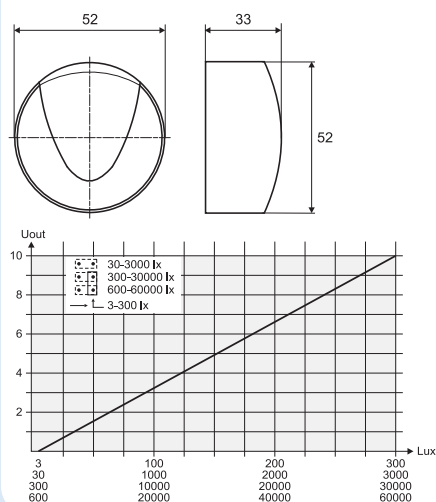
Brightness Sensor - Indoor 0-10VDC CSEZ-01/14



Technical Specifications

Power supply	24VDC ±10%
Brightness measuring ranges	3-300 lux 30-3k lux 300-30k lux 600-60k lux
Output voltage	0-10VDC linear to brightness (see diagram)
Internal resistance	> 2kOhm
Degree of protection	IP20
Operating temperature	-5 to +50°C
Storage/transportation temp.	-25 to +70°C
Colour of the enclosure	similar to RAL9016
Dimensions of the enclosure	HxWxD - 52 x 52 x 29,5mm
Approval	Printed onto the device

Brightness Sensor - Outdoor 0-10VDC CSEZ-01/15

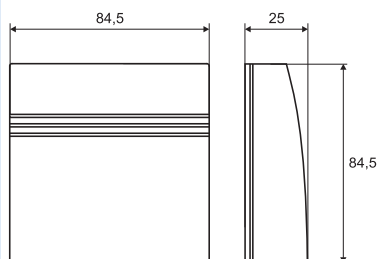


Technical Specifications

Power supply	24VDC ±10%
Brightness measuring ranges	3-300 lux 30-3k lux 300-30k lux 600-60k lux
Output voltage	0-10VDC linear to brightness (see diagram)
Internal resistance	> 2kOhm
Degree of protection	IP54
Operating temperature	-40 to +50°C
Storage/transportation temp.	-25 to +70°C
Colour of the enclosure	similar to RAL7035
Dimensions of the enclosure	HxWxD - 52 x 52 x 33mm
Approval	Printed onto the device



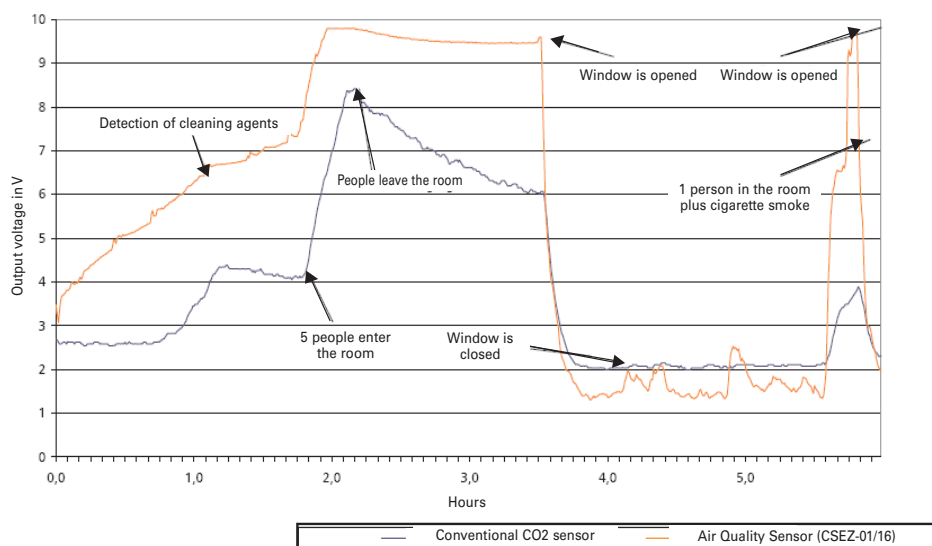
VOC Air Quality Sensor 0-10VDC CSEZ-01/16



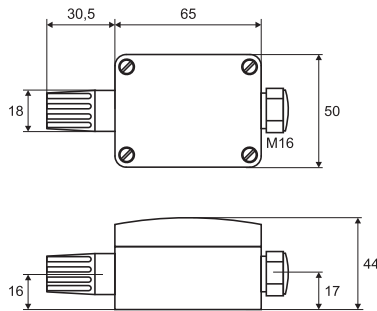
Technical Specifications

Power supply	15-24VDC $\pm 10\%$
Power consumption	max. 50mA/24VDC
All connections	Screw-type terminals, max. 1.5mm ²
Sensor	Mixed gas VOC
Pre-heating time of sensor	approx. 30 min
Output voltage	0-10VDC linear to air quality max. 10mA
Degree of protection	IP20
Operating temperature	-10 to +50°C
Permitted relative air humidity	max. 85%rF
Storage/transportation temp.	-25 to +70°C
Colour of the enclosure	similar to RAL9010
Dimensions of the enclosure	HxWxD - 84,5 x 84,5 x 25mm
Approval	Printed onto the device

Comparison of Air Quality Sensor (CSEZ-01/16) and conventional CO2 sensor



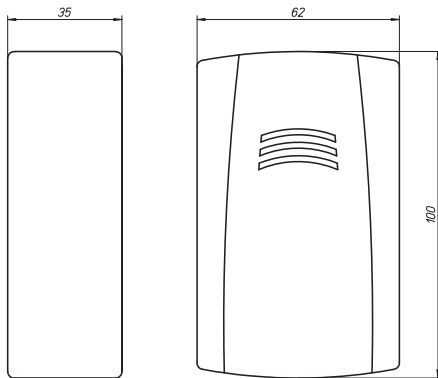
Humidity Sensor - Outdoor 0-10VDC with Temperature PT1000, CSEZ-01/17



Technical Specifications

Power supply	15-24VDC $\pm 10\%$
Power consumption	max. 2mA/24VDC
All connections	Screw-type terminals, max. 1.5mm ²
Sensor 1	capacitive sensor, relative humidity
Operating range	0-100%
Measuring range	5-95% rel. humidity
Output voltage	0-10VDC
	0% rel. humidity corresponding to 0VDC, 100% rel. humidity corresponding to 10VDC
Accuracy at 24VDC and 21°C(+5k)	$\pm 3\%$ rel. humidity (in the range of 30-80% rel. hum.)
Load output	min. 10kOhm
Long-term stability	typ. $\pm 1\%$ per year (depending on the environment)
Temperature drift	typ. 0.05% rel. hum./°C at 20°C
Response time	typ. 10s without filter
Sensor 2	PT1000
Temperature range	-20 to +60°C
Accuracy:	DIN class B $\pm 0.3^\circ\text{C}$ at 0°C
ATTENTION	Make sure the setting on the CAEE-02/01 is correct. Do not expose to direct sunlight. Protect the sensor from pollution, clean filter on a regular basis.
Degree of protection	IP65
Operating temperature	-20 to +60°C
Storage/transportation temp.	-25 to +70°C
Colour of the enclosure	similar to RAL9010
Dimensions of the enclosure	HxWxD - 110 x 50 x 44mm
Approval	Printed onto the device

Water Leakage Sensor CSEZ-01/18

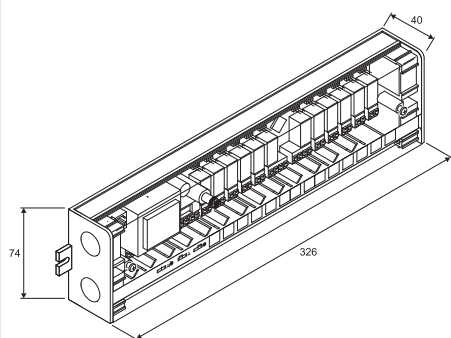


Technical Specifications

Power supply	9V via battery 6LR61
Sensor	Detection of leakages, sensor is removable, length of cable approx. 1.6m, NO threshold value switch!!!
Alarm	Acoustic signal emitter, approx. 85dB at 3m
ATTENTION!!!	Staying too close to the device when an acoustic alarm is triggered might harm your hearing!
Relay output	potential-free, 1A/24VDC or 0.5A/125VAC
RF	via binary input CBEU-02/02
Degree of protection	IP20
Degree of soiling	2
Operating temperature	0 to +45°C
Storage/transportation temp.	-25 to +60°C
Permitted relative air humidity	max. 80% rel.hum.
Colour of the enclosure	similar to RAL9010
Dimensions of the enclosure	HxWxD - 100 x 62 x 35mm
Approval	Printed onto the device



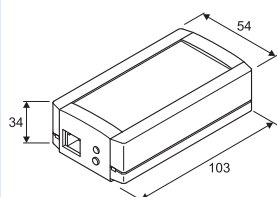
Multi-HeatingActuator CHAZ-01/12



Technical Specifications

Power supply	230V/50Hz $\pm 10\%$
Connections	Plug-in, singlecore/multicore wires (0,25 - 1,5 mm ²)
Power consumption	50 VA max.
Fuse	T4AH
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material!)
Thermostat types	CRCA-00/06; CRCA-00/07
Valve drive types	CHVZ-01/01, CHVZ-01/04
Pump switching output	230 V / 200 W
CO input	Connection for potential-free contact
Dew point sensor input	Connection for potential-free contact
Degree of protection	IP20
Operating temperature	0 to +60°C
Storage/transportation temp.	-25 to +60°C
Dimensions of the enclosure	HxLxW - 40 x 74 x 326 mm
Approval:	Printed onto the device

External Receiver for Multi-Heating Actuator CKOZ-00/12

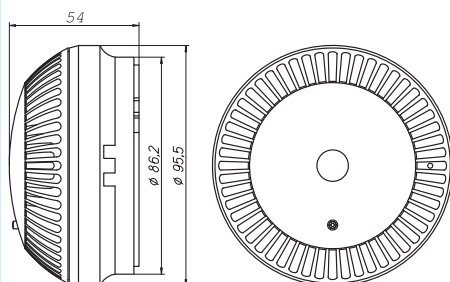


Technical Specifications

Power supply	mittels Multi-Heizungsaktor CHAZ-01/12
Power Supply / Data cable	RJ12-cable, 1m
Frequency	868,300 MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material!)
Degree of protection	IP20
Operating temperature	+5 to +40°C
Storage/transportation temp.	-25 to +70°C
Dimensions of the enclosure	LxWxH - 103 x 54 x 34 mm
Approval:	Printed onto the device



Smoke Detector - Battery-Powered CSEZ-01/19



Technical Specifications

Power supply	9V via a 6LR61, 4022 9V, CP-V9J, U9VL-J, GPCR-V9, U9VL-J-P
Sensor	Photo-electronic smoke detector, power supplied by battery (stray light sensor according to Tyndall effect)
Operating element	Test button (activate for at least 1 second)
Alarm output	Acoustic signal emitter, approx. 85dB at 3m
ATTENTION!!! Staying too close to the device when an acoustic alarm is triggered might harm your hearing!	
RF	via adapter module and battery-powered binary input (CBEU-02/02)
LED	red LED as a display
Max. area covered	approx. 60m ² up to 6m high
Service life of the battery	approx. 2 years (= battery service life) depending on application and type of battery
Self-test	approx. every 40 seconds

Signal

LED Beep			OK! ✓
LED Beep			ALARM! ✓
LED Beep			TEST! ✓
LED Beep			Pollution!
LED Beep			Insert battery!
LED Beep			Mute mode in case of an alarm!
LED Beep			1 alarm during the past 24 h! (e.g. when you were out)

Degree of protection	IP43
Degree of soiling	2
Operating temperature	-10 to +60°C
Storage/transportation temp.	-25 to +70°C
Colour of the enclosure	similar to RAL9016
Dimensions of the enclosure	HxWxD - 95 x 95 x 54mm
Approval	Printed onto the device



Heating Actuator or Electrical Heater Panels CHAZ-01/01



Technical Specifications

Power supply	230-400VAC, 50Hz
Anschlüsse	Steckkontakte
Power consumption:	0.7W/230VAC, 1W/400VAC
Pre-protection	Power circuit breaker 16A, characteristic C
Frequency	868,300MHz
Type of transmission	Bi-directional, via coded telegrams
Indoor range	Typically 30 - 50m, 2 walls + 1 ceiling (depending on wall thickness and material !!)
Compatible with the following heater panel types:	
Dimplex Unique and Dimplex Topaz, Dimplex Classic, Siemens Unique, Siemens Classic, in some cases Clima Extend	
Degree of protection	IP20
Degree of soiling	2
Operating temperature	0 to +45°C
Storage/transportation temp.	-25 to +70°C
Colour of the enclosure	similar to RAL9001
Dimensions of the enclosure	HxWxD - 80 x 108 x 41 mm
Approval	Printed onto the device

General information:

Operating mode	red LED Heating	green LED ECO
COMFORT:	ON, only when heating is requested	OFF
ECO: Night, frost, holiday, standby, window open	ON, only when heating is requested	ON, comfort extension possible
OFF:	OFF	Flashing (1x every 10s)
BACKUP*:	ON, only when heating is requested	OFF

* also possible without heating actuator, "Emergency mode" with a handwheel on the heating actuator and an internal sensor in the electrical panel.

Whenever the heating is requested, both in "COMFORT" and in "ECO" mode, the red LED "HEATING" will be on.

When the "ECO" operating mode is active (green LED ECO is ON), it is possible to control the pre-set temperature on the "hand-wheel" (green ECO-LED switches to OFF) by pushing the "Comfort extension" button (base setting 3 hours).

By pushing the "Comfort extension" button again you will get back to "ECO" (green LED ECO is ON).

Attention: The heating actuator for electrical panels expects a cyclical telegram at least once every hour. Otherwise the device will automatically switch to "BACKUP" mode (= emergency mode).

Note: In order to ensure an optimal measurement of the room temperature, we recommend the use of a "heating actuator for E panels" in combination with a room controller. In this case, please follow the mounting instructions of the room controller.



Configuration possibilities

The configurations specified here are just a few examples. Other combinations are of course possible, too.

1. "Heating actuator with electrical panel" only, without any assigned sensors

Application:	Backup mode = Emergency mode
Real temperature:	Internal sensor in the electrical panel
Set-point temperature:	Handwheel on electrical panel
Comfort:	-
Eco:	-
Off:	-

2. "Heating actuator for electrical panel" with assigned "Push-button" (binary input M2, remote control,...) allowing to change the operating mode

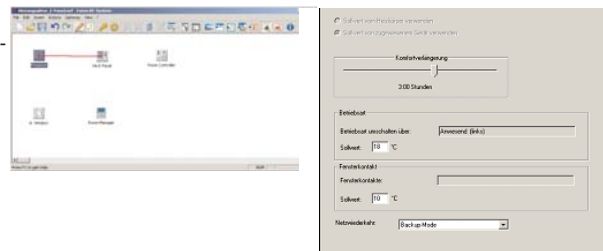
Application:	When you are absent, the temperature will be reduced, when you are in the house, the temperature will be increased again
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"Present ON"

Set-point temperature:	Handwheel on the electrical panel
Real temperature:	Integrated temperature sensor in the electrical panel
LED Heating (red):	ON when heating is requested
LED ECO (green):	OFF

"Present OFF"

Set-point temperature:	Depending on the setting in "Operating mode set-point value" (pre-setting is 18°C)
Real temperature:	Integrated temperature sensor in the electrical panel
LED Heating (red):	ON when heating is requested
LED ECO (green):	ON, Comfort extension can now be activated (pre-setting 3 hours) When comfort extension is active, the set-point temperature of the hand-wheel on the electrical panel will be applied.



3. "Heating actuator for electrical panel" with assigned "Room controller for electrical panels", just for specifying the set-point value

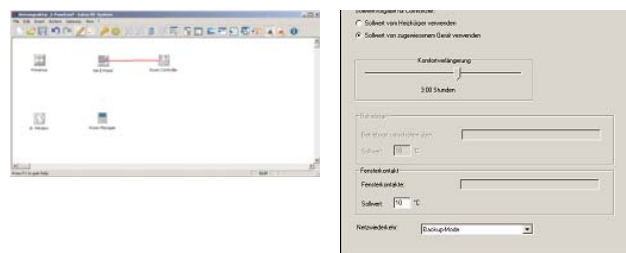
Application:	Central set-point specification for several rooms equipped with electrical panels, the real values can be used from each of the internal sensors in the electrical panels
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"Reduction switch RC" DAY

Set-point temperature:	Handwheel (+3°C) and reduction switch (21°C) on the "Room controller for electrical panels"
Real temperature:	Temperature sensor integrated in the electrical panel
LED Heating (red):	ON when heating is requested
LED ECO (green):	OFF

"Reduction switch RC" Night

Set-point temperature:	Handwheel (+3°C) and reduction switch (8°C) on the "Room controller for electrical panels"
Real temperature:	Temperature sensor integrated in the electrical panel
LED Heating (red):	ON when heating is requested
LED ECO (green):	ON, Comfort extension can now be activated (pre-setting 3 hours) When comfort extension is active, the set-point temperature of the handwheel on the electrical panel will be applied.



4. "Heating actuator for electrical panels" with assigned "Room Manager Room1", specification of set-point values (via operating modes) and real temperature (internal Room1) from the Room Manager, with window contact and Room Manager being linked

Application: Typical individual room control with a time/temperature profile and operating modes, holiday function included

Operating mode on the RM "Auto or Comfort"

Set-point temperature Auto in Comfort time or

Set-point temperature Comfort Depending on the setting of the RM (pre-setting 21°C)

Real temperature: Internal sensor Room Manager Room 1

LED Heating (red): ON when heating is requested

LED ECO (green): OFF

Operating mode on the RM "Standby, Night, Anti-freeze, Holiday, Window open"

Set-point value Standby or

Set-point value Night Depending on the setting of the RM (pre-setting 18°C)

or

Set-point value anti-freeze, holiday, Window open Depending on the setting of the RM (pre-setting 10°C)

Real temperature: Internal sensor Room Manager Room 1

LED Heating (red): ON when heating is requested

LED ECO (green): ON,

Comfort extension can now be activated (pre-setting 3 hours).

When comfort extension is active, the set-point temperature of the handwheel on the electrical panel will be applied.



5. "Heating actuator for electrical panel" with assigned "Room Manager Room1", specification of the set-point value in "COMFORT" mode through the handwheel on the electrical panel, specification of the set-point value in "ECO" mode through the Room Manager, with the window contact and Room Manager being linked

Application: Office with individual on-site control during office hours, automatic reduction outside office hours

Operating mode on the RM "Auto or Comfort"

Set-point temperature Auto in Comfort time Handwheel on the electrical panel
or

Set-point temperature Comfort Handwheel on the electrical panel

Real temperature: Temperature sensor integrated in the electrical panel

LED Heating (red): ON when heating is requested

LED ECO (green): OFF

Operating mode on the RM "Standby, Night, Anti-freeze, Holiday, Window open"

Set-point value Auto except in Comfort time or
Set-point value Standby Depending on the setting of the RM (pre-setting 18°C)
or

Set-point value Night Depending on the setting of the RM (pre-setting 18°C)
or

Set-point value Anti-freeze, Holiday, Window open Depending on the setting of the RM (pre-setting 10°C)

Real temperature: Internal sensor Room Manager Room 1

LED Heating (red): ON when heating is requested

LED ECO (green): ON,
Comfort extension can now be activated (pre-setting 3 hours).
When comfort extension is active, the set-point temperature of the handwheel on the electrical panel will be applied.

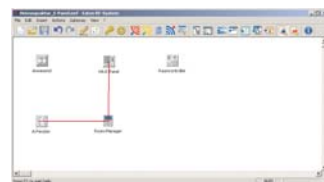
Operating mode on RM "OFF"

Set-point temperature: No specification of a set-point value as "OFF"

Real temperature: Internal sensor Room Manager Room 1, no impact as OFF

LED Heating (red): OFF

LED ECO (green): Flashing (1x every 10s)



6. "Heating actuator for electrical panel" with assigned "Window contact" (binary input M2)

Application:

Temperature reduction when window is open with anti-freeze function at the same time

"Window" closed

Set-point temperature:

Depending on the respective application (see applications 1-4)

Real temperature:

Depending on the respective application (see applications 1-4)

LED Heating (red):

ON when heating is requested

LED ECO (green):

OFF

"Window" open

Set-point temperature:

Depending on the setting "Window contact set-point value" (pre-setting 10°C)

Real temperature:

Depending on the respective application (see applications 1-4)

LED Heating (red):

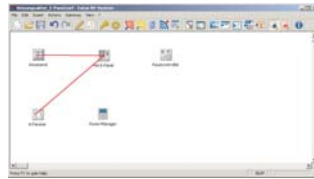
ON when heating is requested

LED ECO (green):

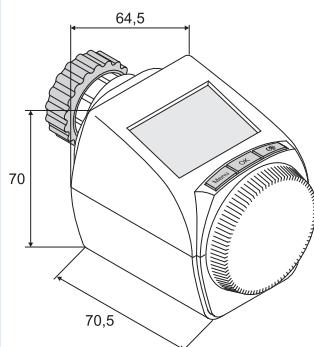
ON,

Comfort extension can now be activated (pre-setting 3 hours).

When comfort extension is active, the set-point temperature of the handwheel on the electrical panel will be applied.




RF Radiator Thermostat CHVZ-01/03



Technical Specifications

Power supply	3V via battery (2x 1.5V AA)
Connection	M30 x 1.5
Battery life	approx. 2 years
Frequency	868,300 MHz
Display	LC display
Adjustment travel	4.2 mm
Adjustment force	max. 80 N
Degree of protection	IP20
Operating temperature	+5 to +55°C
Max. surface temperature	+90°C (at the radiator)
Colour of the enclosure	similar to RAL9003 (traffic white)
Total dimensions	HxWxD – 70 x 63 x 99 mm
Approval	Printed onto the device

RF valves that are compatible

1) Without an adapter

Manufacturers/Types:

Heimeier, MNG, Junkers,
Landis&Gyr „Duodyr“, Honeywell-Braukmann,
Oventrop, Schlösser, Comap, Simplex, Valf Sanayii,
Metrik Maxitrol, Watts, Wingenroth (Wiroflex),
R.B.M., Tiemme, Jaga, Siemens, Idmar

2) With adapters that are enclosed in the delivery

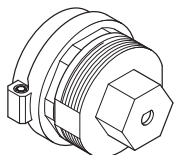
Manufacturers/Types

Danfoss RA, Danfoss RAV,
Danfoss RAVL

Note:

In order to ensure an optimal measurement of the room temperature, we recommend the use of an "RF radiator thermostat" in combination with a central device (e.g. Room Manager, Home Manager, ECI ...) and a room controller. In this case, please follow the mounting instructions of the room controller.

Valve Adapter 5 for RF Radiator Thermostat CMMZ-00/36

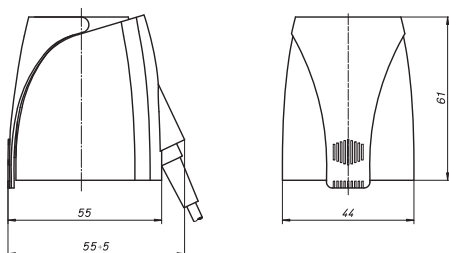


Technical Specifications

Connection	Threaded M28 x 1.5
Manufacturers/Types	Herz, Comap, Markaryds, TA, SAM bzw. Slovarm, Remagg



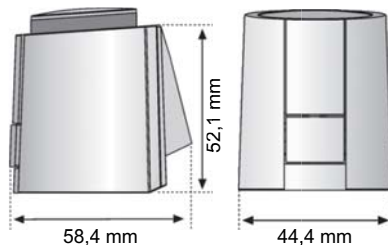
Radiator Valve NC CHVZ-01/01



Technical Specifications

Power supply	230VAC $\pm 10\%$, 50/60Hz
Connection plug-in	2x0,75mm ² , 1m
Power consumption	2 W
Pre-protection	Power circuit breaker 16A, characteristic C
Regulation distance	4 mm
Regulation force	100 N $\pm 5\%$
Type	NC (closed when not energized)
Miscellaneous	First Open Function Plug-type fitting Function display Adjustment check
Types of fittings:	depending on the valve adapter
Degree of protection	IP54
Degree of soiling	2
Medium temperature	0 to 100°C
Storage/transportation temp.	-25 to +60°C
Permitted relative air humidity	max. 80%rF
Colour of the enclosure	similar to RAL9003 (traffic white)
Dimensions of the enclosure	HxWxD - 61 x 44 x 55+5mm
Approval	Printed onto the device

Radiator Valve NC CHVZ-01/04



Technical Specifications

Power supply	230VAC $\pm 10\%$, 50/60Hz
Connection plug-in	2x0,75mm ² , 1m
Power consumption	1 W
Pre-protection	Power circuit breaker 16A, characteristic C
Regulation distance	4/5 mm
Regulation force	100 N $\pm 5\%$
Type	NC (closed when not energized)
Miscellaneous	First Open Function Plug-type fitting Function display Adjustment check
Types of fittings:	depending on valve adapter
Degree of protection	IP54
Degree of soiling	2
Medium temperature	0 to 100°C
Storage/transportation temp.	-25 to +60°C
Colour of the enclosure	similar to RAL9003 (traffic white)
Dimensions of the enclosure	HxWxD - 58.4 x 44.4 x 52.1+7mm
Approval	Printed onto the device



Valve Adapter CMMZ-00/17, CMMZ-00/18, CMMZ-00/38

Technical Specifications

Valve adapter 1 CMMZ-00/17

Adapter for	Danfoss RA
Type	Flange
Thread	Flange
Colour of the enclosure	similar to RAL9016, clean-white
Dimensions of the enclosure	HxWxD - 40 x 40 x 30mm

Valve adapter 2 CMMZ-00/18

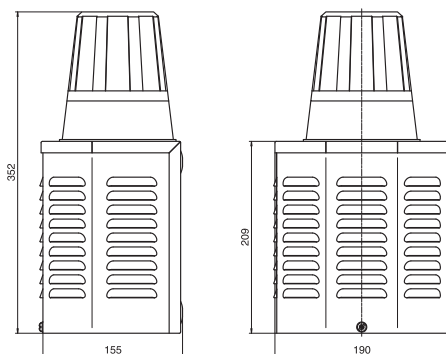
Adapter for	Beulco (from 2006) SBK (from 1998) Cazzaniga Dumser Heimeier Honeywell IVAR MNG (from 1998) ONDA Ovendrop Reich (distribution) Schlösser Siemens Taco
Thread	M30x1.5
Colour of the enclosure	similar to RAL7035
Dimensions of the enclosure	HxWxD - 40 x 40 x 15mm

Valve adapter 6 CMMZ-00/38

Adapter for	Tour & Andersson Nereus Type 9440 (Angle valve)
Thread	M28x1.5
Colour of the enclosure	similar to RAL6026, light green
Dimensions of the enclosure	HxWxD - 40 x 40 x 16mm



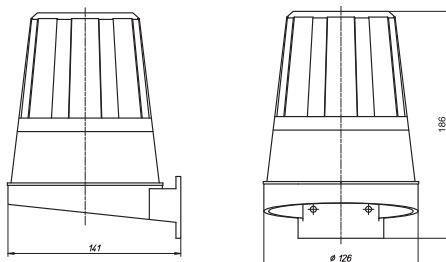
Compact Signal Emitter CSGZ-02/01



Technical Specifications

Power supply	230VAC, 50Hz
Connections	Screw-type terminals, 1.5mm ²
Pre-protection	Power circuit breaker 16A, characteristic C
Flashing light	
Flashing frequency	approx. 0.8 Hz
Flashing energy	approx. 2 Ws
Power consumption	approx. 300 mA
Siren	
Audio pressure	>100 dB A
Power consumption	ca. 350 mA
Degree of protection	IP56
Degree of soiling	2
Operating temperature	-25 to +50°C
Storage/transportation temp.	-25 to +70°C
Colour of the enclosure	similar to RAL9002
Dimensions of the enclosure	HxWxD - 352 x 190 x 155mm
Approval	Printed onto the device

Flashing Light Signal Emitter CSGZ-01/02



Technical Specifications

Power supply	230VAC, 50Hz
Connections	Screw-type terminals, 1.5mm ²
Pre-protection	Power circuit breaker 16A, characteristic C
Flashing light	
Flashing frequency	approx. 0.8 Hz
Flashing energy	approx. 2 Ws
Power consumption	approx. 300 mA
Degree of protection	IP56
Degree of soiling	2
Operating temperature	-25 to +50°C
Storage/transportation temp.	-25 to +70°C
Colour of the enclosure	similar to RAL9002
Dimensions of the enclosure	HxWxD - 126 x 186 x 141mm
Approval	Printed onto the device

Battery Type 1 CBTZ-00/01, Battery Type 2 CBTZ-00/02, Battery Type 4 CBTZ-00/04

Technical Specifications

Type 1 CBTZ-00/01:

Type	Coin cell, 3V, CR2430
Size	Diam. = 24 mm, H = 3 mm

Type 2 CBTZ-00/02:

Type	Coin cell, 3V, CR2477N
Size	Diam. = 24 mm, H = 7.7 mm

Type 4 CBTZ-00/04:

Type	Coin cell, 3V, CR2450N
Size	Diam. = 24 mm, H = 5 mm



Adhesive Strips CMMZ-00/01, CMMZ-00/24

Technical Specifications

Material	Double-coated adhesive strips Duolomont
Colour	Graphite black, similar to RAL 9011
Content of the set	For 10 push-buttons (20 adhesive strips)
Size	LxWxH - 45 x 7 x approx.1mm

Screws and Dowels CMMZ-00/02, CMMZ-00/25

Technical Specifications

Screws	Flat head screws, cross-recess screws
Dowels	Plastic wall dowels
Content of the set	for 10 push-buttons (20 screws and 20 dowels)
Size	
Screws	d=3 x 25mm
Dowels	d=4 x 20mm

Push-Button Base Plate CMMZ-00/03, CMMZ-00/26

Technical Specifications

Material	ABS
Colour	Pearl white, similar to RAL1013
Content of the set	for 10 push-buttons (10 push-button base plates)
Size	HxWxD - 60 x 71 x 8.5mm



Push-Button Base Plate 45x45 mm CMMZ-00/21

Technical Specifications

Material	ABS
Colour	similar to RAL9010
Content of the set	for 10 push-buttons (10 push-button base plates)
Size	HxWxD - 47 x 45 x 9.5mm

Push-Button Base Plate 55x55 mm CMMZ-00/22

Technical Specifications

Material	Polyamide PA66
Colour	similar to RAL7035
Content of the set	for 10 push-buttons (10 push-button base plates)
Size	HxWxD - 70 x 70 x 10mm

Cover Foil white CMMZ-00/04, CMMZ-00/27

Technical Specifications

Material	Synthetic foil
Colour	White, similar to RAL 9003
Content of the set	for 10 push-buttons (10 pcs. of foil)
Cleaning	Damp cloth
Size	LxWxH - 80 x 80 x 0.5mm



Cover Foil grey CMMZ-00/05, CMMZ-00/28

Technical Specifications	
Material	Synthetic foil
Colour	Grey, similar to RAL 7001
Content of the set	for 10 push-buttons (10 pcs. of foil)
Cleaning	Damp cloth
Size	LxWxH - 80 x 80 x 0.5mm

RC-Unit CMMZ-00/07

Technical Specifications	
Resistance / Capacity	22 Ω / 0.22 μ F
Rated Voltage	250 VAC
Size	HxBxD - 24x12x17mm
Approval	Printed onto the device

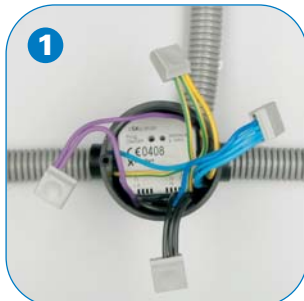


EATON - WIRELESS SYSTEM

Setting in "BASIC MODE"

In "Basic Mode" the functions of the devices can be assigned through activating the programming button and the respective push-button. Easy, without any complicated tools, PC or setting of DIP-switches etc.

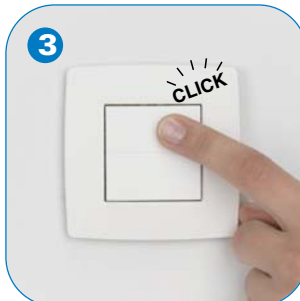
Increasing the range through "Routing" (see Comfort Mode) is not possible in Basic Mode.



1 Install the actuator in the flush box and connect it



2 Activate the programming button (the red LED and the connected lamp are switched ON)



3 Push the corresponding push-button (the red LED and the connected lamps flash twice for confirmation)



4 Activate the programming button a second time to finish the process (the LED and the connected lamp are switched OFF)

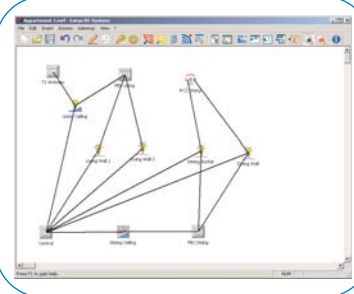
Setting in "COMFORT MODE"

Comfort Mode offers the opportunity for detailed and comfortable settings (e.g. operating time of shutters, time functions, flash functions, functions with command time, dimmer settings, settings for temperature sensors and much more).

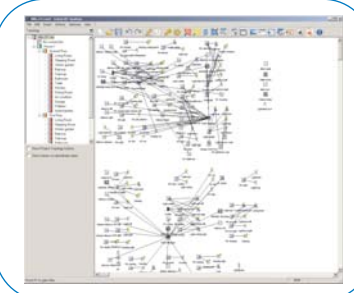
All you need is a notebook/laptop. The free setting-software is easy to understand and clearly structured, so all the user has to do is to deal with the setting jobs as such.

If the system was first programmed in "Basic Mode" and the push-buttons were assigned to certain actuators, the functional connections are depicted as a single "line" when the system is read in. Detailed settings and adjustments can be made at any time ...

If no functions have been assigned yet, "Comfort Mode" enables you to assign a function by simply "drawing" a line between the actuator(s) and the sensor(s) on the screen.



MRF 2.0 for Residential Buildings



MRF 2.0 for Light Commercial Buildings

The devices can also be given names which are (and stay) memorized in the devices.

If one day the range should not be sufficient while taking the system into operation, the notebook/laptop will automatically and in the background calculate the routing (forwarding of data via actuators, for example).

Enhancements in the MRF2.0 version

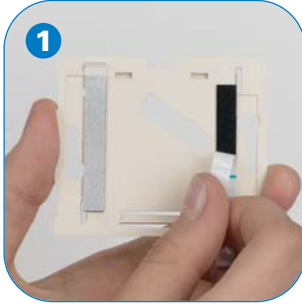
- Modern and revised layout and design
- Code for professionals is generally unlocked
- Cancel and reset function
- Improved and faster reading of system pass words
- Improved reading and loading, shorter response times, re-naming while reading
- Reading of project parts, succession of reading/loading/quality of reception can be selected
- Adding of a background picture (bmp, jpg, gif, ...)
- Adding of project notes
- Adding of notes on each individual device
- Adding of grouping frames
- Enhanced documentation options
- Zoom function for large projects (50%, 100%)
- Enhanced selection mode for Copy/Delete/Shift
- Adding and configuration of virtual devices from a data base
- Easy connection assistant with an additional option for configuration
- Copying of projects and parts of projects
- "Manual" selection of routing
- Project topology for large projects - unambiguous project structure



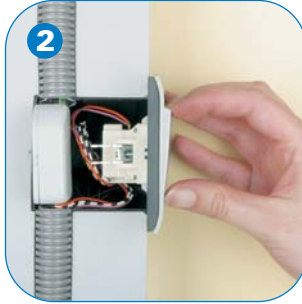
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EATON - WIRELESS SYSTEM

Installation



1
Simply stick the switch, temperature control etc. onto the wall



2
Integration of conventional switches with binary input into the wireless system



3
Both screw and plug-in terminals can be used



4
Incorporation of the actuator in the switch or installation box with cover



5
Installation of an actuator in the switch box with wireless push-button as a combined solution



6
Installation of the actuator in the light fixture



7
Installation of the actuator in a splash-proof box



8
Installation of the actuator in a cable channel box



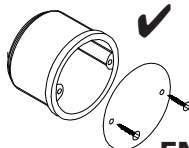
9
Battery easy to replace, Service life of battery for push-button approx. 10 years



10
Battery easy to replace - Service life of battery for room temperature control approx. 7 years



CSAU-01/01-16
CSAU-01/01-16I
CSAU-01/01-16IE



EN60670

ATTENTION!

CSAU-01/01-16, CSAU-01/01-16I, CSAU-01/01-16IE:

This device must be installed inside a mounting box (complying to EN60670) and behind an accessory or blank plate that uses at least 2 screw fixing points to secure it to the mounting box. Failure to do so could result in a fire hazard or electric shock under extreme external fault conditions.



EATON

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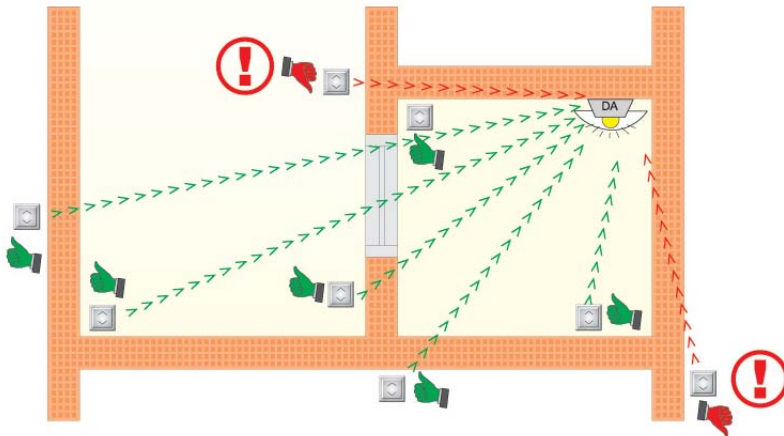
EATON - WIRELESS SYSTEM

Protective Device



Protection of actuators through 16A-Miniature Circuit Breakers, characteristic C, e.g. PLSM-C16/1N

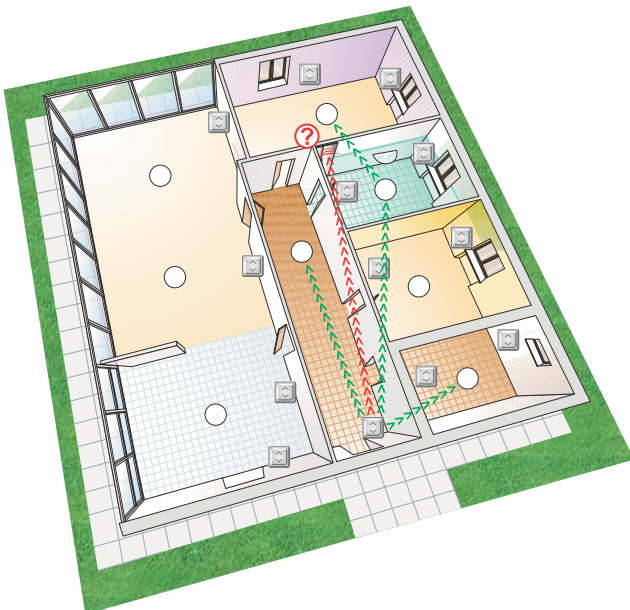
Instructions for Installation in "BASIC MODE"



Transmitting range: approx. 30-50 m indoors, typically 2 walls + 1 ceiling (depending on wall thickness and material, see page after the next "RF - Building Penetration Capacity"). Comfort Mode increases the range by "Routing"

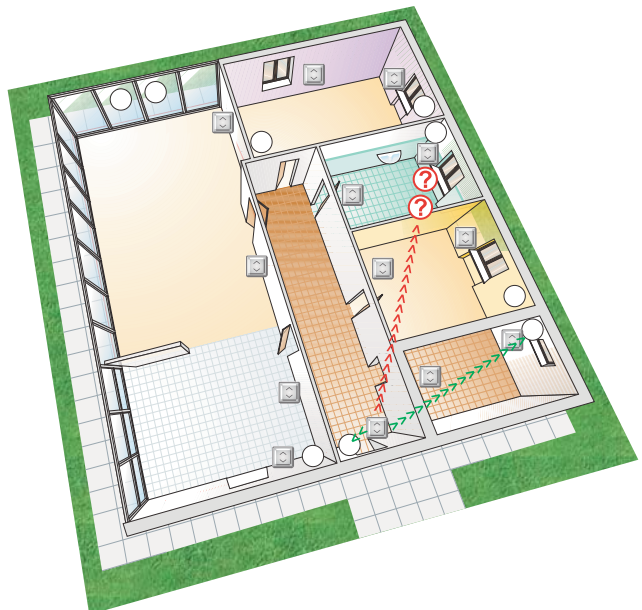
Instructions for Installation in "COMFORT MODE"

Optimal indoor-placement of actuators



"Routing" allows for "alternative" transmission routes ...

Unfavorable indoor-placement of actuators



No "Routing" possible ...



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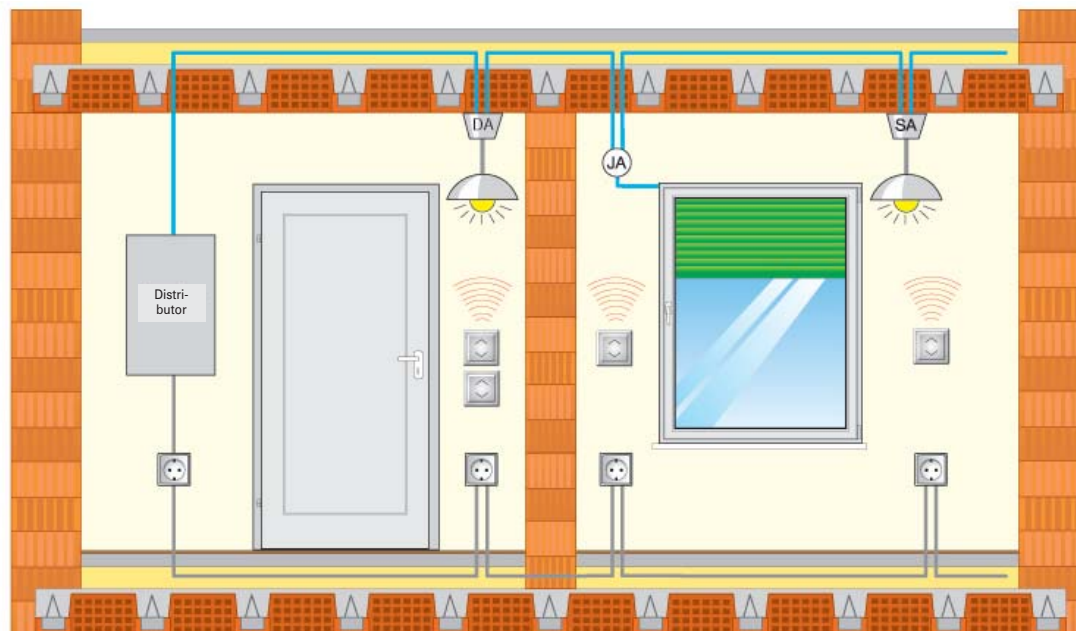
EATON - WIRELESS SYSTEM

Installation options: Actuators in the branch box



NO NEED to provide a major-size installation distributor. The actuators can be installed in branch boxes.

Installation options: Actuators installed in the light fixtures

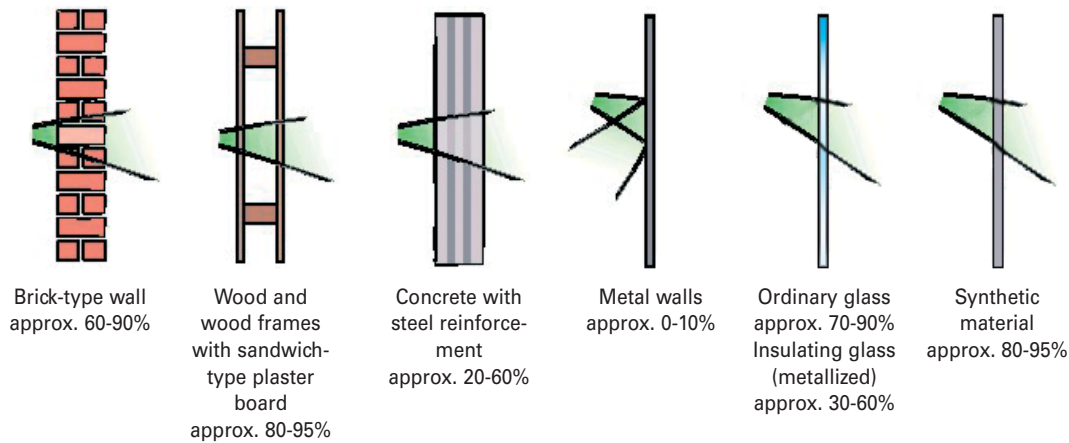


NO NEED to provide a major-size installation distributor. Some of the actuators can be installed in branch boxes (blinds) and others in the light fixtures (lighting).



EATON - WIRELESS SYSTEM

RF - Building Penetration Capacity



⚠ Information: The percentages given are guideline values only. They may vary subject to the respective local conditions.

Number of telegrams

Correct wireless communication can only be provided if the max. number of RF telegrams received/sent within one "RF cell" does not exceed 4 telegrams per second! This has to be arranged for during start-up, especially

- if two or more RF areas communicate via one or only few routers and need to exchange data cyclically and/or large quantities of data
- in large systems where many devices communicate with a single central device on a permanent basis (Home Manager, Room Manager, ECI etc.)
- where several binary inputs need to be activated using the same push-button
- etc.



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EATON - WIRELESS SYSTEM

Functions of the switching actuator in Basic-Mode



RF Push-button: ON / OFF



Remote control: ON / OFF



Binary input:



Mode 1: Both channels: current impulse



Mode 2: Both channels: ON / OFF



Mode 3: Channel A: current impulse; channel B: ON / OFF



Mode 4: Channel A: ON; channel B: OFF



Room temperature control: Too cold: ON; too warm: OFF

Mains supply restored: Last value

With low batterie: Flashing

Functions of the dimming actuator in Basic-Mode



RF Push-button: ON / OFF and brighter/darker



Remote control: ON / OFF and brighter/darker



Binary input:



Mode 1: Both channels with push-button and dimming function



Mode 2: Both channels only ON / OFF without brighter/darker function



Mode 3: Channel A: push-button and dimming function

Channel B: only ON / OFF without brighter/darker function



Mode 4: Channel A: ON and brighter;

Channel B: OFF and darker



Room temperature control: Too cold: ON; too warm : OFF (without dimming)

Mains supply restored: Last value

With low batterie: Flashing

Dimming time: 5 sec

Dimming limits: 20 to 100%

Functions of the blinds actuator in Basic-Mode



RF Push-button: Blinds (up/down with stop / slat)



Remote control: Blinds (up/ down with stop / slat)



Binary input:



Mode 1: Both channels: automatic sequence control (without slat only stop)



Mode 2: Both channels: automatic sequence control (without slat only stop) →



Mode 3: Channel A: automatic sequence control - see mode 1

Channel B: automatic sequence control - see mode 2



Mode 4: Channel A: up and slat up or stop

Channel B: down and slat down or stop



Room temperature control: Shutters: too cold: open; too warm: close

Operating time: 60 sec



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EATON - WIRELESS SYSTEM

Functions of the analogue actuator in Basic-Mode

0-10V
OUT

1-10V
OUT



RF Push-button: ON / OFF and brighter/darker



Remote control: ON / OFF and brighter/darker



Binary input:



Mode 1: Both channels with push-button and dimming function



Mode 2: Both channels only ON / OFF without brighter/darker function



Mode 3: Channel A: push-button and dimming function ; Channel B: only ON / OFF without brighter/darker function



Mode 4: Channel A: ON and brighter; Channel B: OFF and darker



Room temperature control: Too cold: ON; too warm : OFF (without dimming)

Mains supply restored: Last value

With low batterie: Flashing

Dimming limits: 0 to 100% (CAAE-01/01 or CAAE-01/02)

1 to 100% (CAAE-01/05)

Dimming time: 5 sec

Characteristic: linear

Relay: switches as well

Info: OFF: 0 VDC (CAAE-01/01) or 1 VDC (CAAE-01/02 and CAAE-01/05)









ON: 10 VDC (CAAE-01/01, CAAE-01/02 and CAAE-01/05)



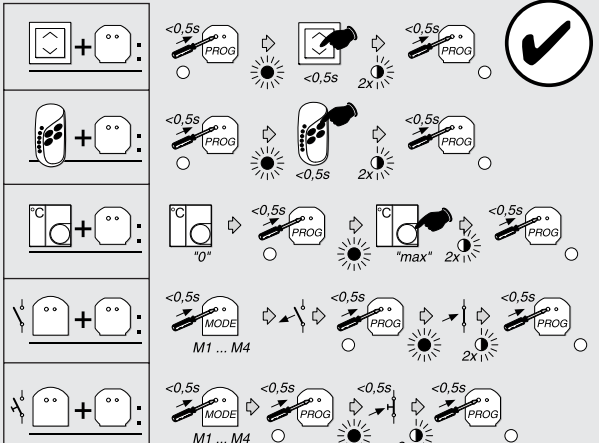
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Setting Card "BASIC MODE"

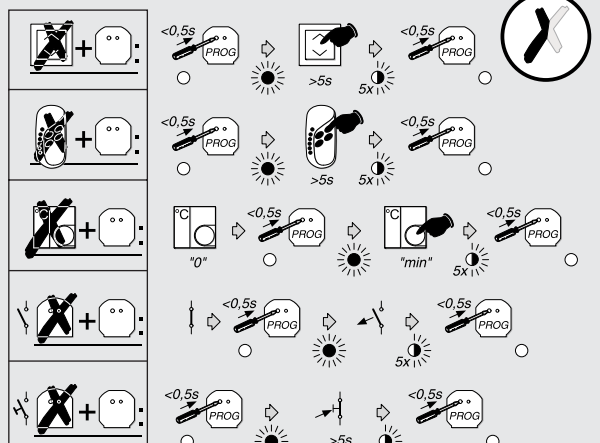
Devices - Overview

 CTAA-01/0X CTAA-02/0X	 CBEU-02/0X
 CRCA-00/0X 1x 2x 3x 4x	 CSAU-01/0X CSAP-01/0X
 CHSZ-00/0X	 CJAU-01/0X
	 CDAU-01/0X CDAP-01/0X
	 CAAE-01/0X 0-10V OUT

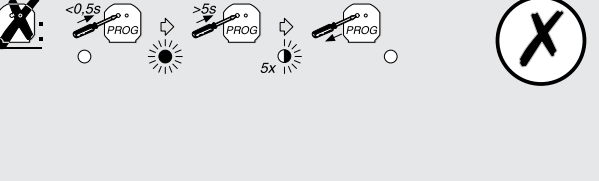
Assign functions



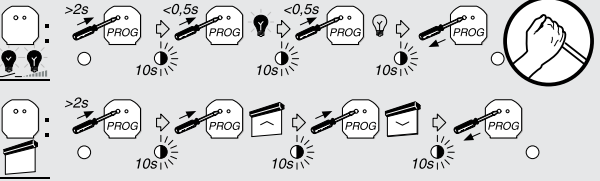
Delete individual sensors



Totally delete an actuator

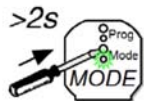


Manual operation



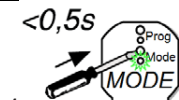

Programming Card "BASIC MODE" CSAU-01/01-10IE:

Identify in MRF

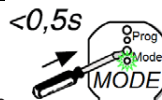


Highlight and find this Device in MRF

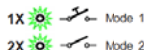
Change local input mode



1 Start input selection mode



2 Select input mode by pressing multiple times

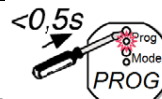


3 Input selection mode stops automatically after 10 seconds

Manual switching



1 Start manual switching mode



2 Toggle between ON and OFF by pressing multiple times



3 Manual switching mode stops automatically after 10 seconds

Reset Actuator



1 Start programming mode



2 Hold until the actor switches 5 times

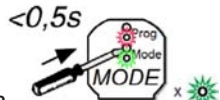


3 Programming mode stops automatically

Assign a Sensor in Basic Mode



1 Start programming mode



2 Select Function Mode by pressing multiple times



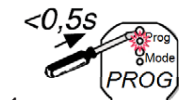
3 Activate the sensor. The actor switches 2 times for verification



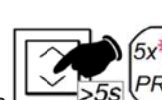
4 Stop programming Mode

Function Mode	Sensor: CSAU-01/01-10I, CSAU-01/01-10IE
1x / ON/OFF 2x ↔ Toggle 3x → Pushbutton 4x 60s Staircase 5x 45s 15s Staircase with warning	 Assign Local Input: Mode LED must be On

Remove a Sensor in Basic Mode



1 Start programming mode



2 Activate the sensor until the actor switches 5 times for verification



3 Stop programming Mode

Functions overview for actuators in Comfort Mode (by means of MRF-Software and PC)

For each sensor assigned (max. 15 sensor per actuator) the following different functions can be selected:

Switching actuator functions that can be selected in Comfort Mode



Functions available:

ON / OFF (Standard in Basic-Mode)

Switches ON or OFF

ON / Switch-on delay time

Switch-on command which is carried out either immediately or after an adjustable delay time

OFF / Switch-off delay time

Switch-off command which is carried out either immediately or after an adjustable delay time

OFF with advance warning

Staircase light function that switches ON immediately and switches OFF after an adjustable delay time. 15 seconds before the switching actuator switches OFF, the output unit will flash once as an advance warning.

Push-button function

The switching actuator switches ON only for the time the push-button is pressed; once it is released, it will switch OFF

Power impulse

The switching actuator changes its initial state every time it is activated

Flashing

Upon activation, the switching actuator starts flashing after an adjustable interval time

No function

As indicated

Other settings:

Delay time depending on each function: 0 seconds to 18 hours

Interval time of flashing: 2 seconds to 18 hours

Command time for a long push at the button: 1 to 5 seconds

Identification of the battery status (flashes upon switch-on)

Behaviour of the output unit when the power supply is restored



Functions overview for actuators in Comfort Mode (by means of MRF-Software and PC)

For each sensor assigned (max. 15 sensor per actuator) the following different functions can be selected:

CSAU-01/01-10IE Switching actuator functions that can be selected in Comfort Mode



Functions available:

ON / OFF (Standard in Basic-Mode)

Switches ON or OFF

ON / Switch-on delay time, occupies 1 command button

On Command which is executed immediately or after an adjustable delay time

OFF / ON with Switch-Off delay, occupies 1 command button

Off Command which is executed immediately or after an adjustable delay time. In case of a delay time >0s the output will switch ON immediately and switch OFF after the delay time.

OFF / Switch-OFF delay, occupies 1 command button

Off Command which is executed immediately or after an adjustable delay time. Does not switch ON if the output is already OFF.

OFF with Advance Warning, occupies 1 command button

Staircase function which switches ON immediately and switches OFF after an adjustable time. The Switching Actuators Output is blinking 15 seconds before it switches OFF.

Push-button/Key Mode, occupies 2 command buttons

The Switching Actuator is only ON while its sensor is activated; otherwise it is OFF

Surge, occupies 1 command button

The Switching Actuator toggles with every sensor activation its output value.

Blinking, occupies 1 command button

The Switching Actuator starts to blink. You can adjust the interval time and the ON/OFF duty cycle (1-99% - minimum value cannot be <0.5s)

Activate Lock, occupies 1 command button

Locks the actuator against any further operation of other sensors with normal functions, the lock can be permanently (can only be released by a sensor with „Release Lock“ function) or after a defined lock time (10 minutes to 18 hours), the output action for Lock and Release Lock can be defined (ON, OFF, old value)

Release Lock occupies 1 command button

Releases the Lock and allows operation of the actuator by normal functions again, the output action for Release Lock can be defined (ON, OFF, old value)

No Function, occupies 1 command button

Has no function, however the actuator will send a Resend of the RF-command if in a group



Functions overview for actuators in Comfort Mode (by means of MRF-Software and PC)

For each sensor assigned (max. 15 sensor per actuator) the following different functions can be selected:

Dimming actuator functions that can be selected in Comfort Mode



Functions available:

ON / OFF / Dimming (Standard in Basic-Mode)

Switches ON, OFF or DIMS

ON / Switch-on delay time

Switch-on command which is carried out either immediately or after an adjustable delay time

OFF / Switch-off delay time

Switch-off command which is carried out either immediately or after an adjustable delay time

OFF with advance warning

Staircase light function that switches ON immediately and switches OFF after an adjustable delay time. 15 seconds before the switching actuator switches OFF, the output unit will flash once as an advance warning.

Dimming function through push-button

The dimmer switches ON or OFF upon a short push at the button and will dim UP or DOWN upon a long push at the button.

Power impulse

The dimming actuator changes its initial state every time it is activated

Flashing, takes the dimming time into account

Upon activation, the dimming actuator starts flashing after an adjustable interval time while dimming at the same time

Brightness desired

The dimming actuator dims at the preset dimming speed (dimming time) towards a brightness value that has been preset

No functions

As indicated

Other settings:

Delay time depending on each function:	0 seconds to 18 hours
Interval time of flashing:	2 seconds to 18 hours
Command time for a long push at the button:	1 to 5 seconds
Dimming time:	0 to 250 seconds
Dimming limits:	0 to 100%
Identification of the battery status (flashing upon switch-on)	
Behaviour of the output unit when the power supply is restored	



Functions overview for actuators in Comfort Mode (by means of MRF-Software and PC) - continued

For each sensor assigned (max. 15 sensor per actuator) the following different functions can be selected:

Shutters/blinds actuator functions that can be selected in Comfort Mode



Functions available:

Blinds (Standard in Basic-Mode)

Slat Up / Down or Stop and Open/Close for the time of the preset operation time

Shutters

Stop and Open/Close for the time of the preset operation time

Shutters with Open function

Stop and Open/Close (with short opening) for the time of the preset operation time

Open

Open for the time of the preset operation time

Close

Close for the time of the preset operation time

Stop

Stop command

Sequence control

Changes upon each command in the following order: Open - Stop - Close - Stop - Open ...

Security upon switching ON (with CJAU-01/02 only)

Moves to the security position upon an ON command

Security upon switching OFF (with CJAU-01/02 only)

Moves to the security position upon an OFF command

Acknowledgement of security position

Acknowledges a current security position

No function

As indicated

Other settings:

Operation time of the blinds/shutters:	1 second to 1 hour (0 seconds and push-button operation with CJAU-01/02 only)
Command time for a long push at the button:	1 to 5 seconds
Security position:	Top/bottom/stop (with CJAU-01/02 only)
Cycle time of security:	10 minutes to 18 hours (cyclical reception switched off with CJAU-01/02 only)



Functions overview for actuators in Comfort Mode (by means of MRF-Software and PC) - continued
For each sensor assigned (max. 15 sensor per actuator) the following different functions can be selected:

Analogue actuator functions that can be selected in Comfort Mode



Functions available:

ON / OFF / Dimming (Standard in Basic-Mode)

Switches ON, OFF or DIMS

ON / switch-on delay time

Switch-on command which is carried out immediately or after an adjustable delay time

OFF / switch-off delay time

Switch-off command which is carried out either immediately or after an adjustable delay time

OFF with advance warning

Staircase light function that switches ON immediately and switches OFF after an adjustable delay time. 15 seconds before the dimming actuator switches OFF, the output unit will flash once as an advance warning.

Dimming function through push-button activation

The analogue actuator switches ON or OFF upon a short push at the button and dims up or down upon a long push at the button

Power impulse

The analogue actuator changes its initial state every time it is activated, while dimming at the same time

Flashing, takes the dimming time into account

Upon activation, the analogue actuator starts flashing after an adjustable interval time while dimming at the same time

Analogue value desired

The analogue actuator dims at the preset dimming speed (dimming time) towards a preset analogue value

No function

As indicated

Other settings:

Delay time depending on each function:	0 seconds to 18 hours
Interval time of flashing:	2 seconds to 18 hours
Command time for a long push at the button:	1 to 5 seconds
Dimming time:	0 to 250 seconds
Dimming limits:	0 to 100% (CAAE-01/01 or CAAE-01/02) 1 to 100% (CAAE-01/05)
Characteristic:	Linear, logarithmical
Relay switches as well:	YES/NO
Identification of the battery status (flashing upon switch-on)	
Behaviour of the output unit when power supply is restored	
Info:	OFF: 0 VDC (CAAE-01/01) or 1 VDC (CAAE-01/02 and CAAE-01/05) ON: 10 VDC (CAAE-01/01, CAAE-01/02 and CAAE-01/05)

