Nikobus home automation system

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Nikobus: never was a choice this simple

At home you feel at home. Your home is pre-eminently the place where you enjoy cosiness and comfort. Moreover, a home is a safe harbour, where you can relax and feel safe. Niko offers you a great range of possibilities to do justice to values such as safety and security. Nikobus, Niko's intelligent management system, offers you the possibility to integrate all functions concerning lighting, entertainment, safety, heating, audio etc into one complete system. The installation is thus flexible to such an extend that it can always meet the current needs.

In a modern living environment, it is highly important that your electrical installation can evolve without the need of far-reaching renovations leading to drilling and channeling work. A young family simply has other needs than a retired person. This is exactly the strength of the Nikobus system! Every installation can be extended at any chosen point in time via the surface mounted printed circuit concept.

You can choose between programming manually or via pc. All controlling and switching can also be carried out via the wireless Easywave line. This way Niko can meet the needs of a contemporary family and at the same time guarantee that future wishes can be granted without a hitch.

Functions

- Lighting
- Shutters and sunblinds
- Heating and cooling
- Ventilation
- Audio
- Safety
- Time regulation
- Presence simulation
- Videophony

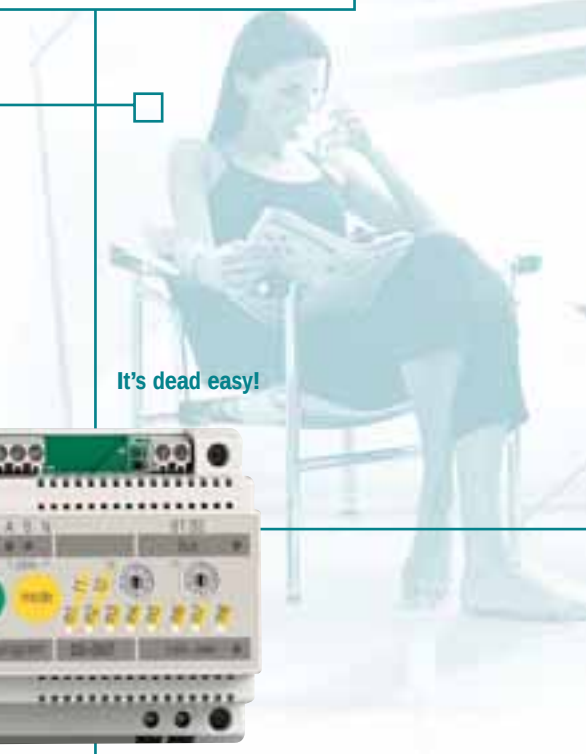
A unique concept

Circuit board

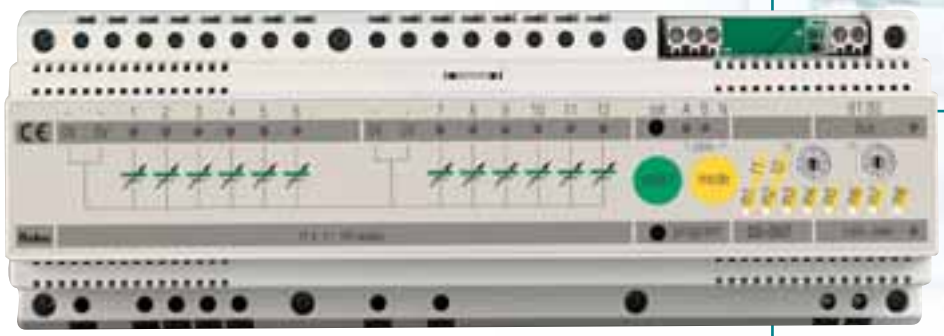
In order to achieve a smooth integration of the control elements in a home automation system, Niko came up with the circuit board concept. All control points in the installation need to be provided with only one flush mounting box. The installer can wait until the finishing phase to choose between a single or multiple board. This way, the customer only needs to decide during the end phase how many control elements need to be provided in each room. Afterwards, the installation can only be adjusted to the changing needs by adapting a circuit board.

Programming directly on the modules

Each output module has a great variety of possibilities to completely fulfill the functional needs of a contemporary installation. The only tool you need for programming is a small screw driver.
After opening the program with the screw driver, you choose the desired output(s) with the selection-button, after which you assign the corresponding function to the chosen output(s) by using the mode-button.



It's dead easy!



Programming the buttons

When the programming steps on the output module are completed, you need to assign the corresponding control-button(s) to the chosen output(s). To do this, you only need to push the desired control-buttons. To close the program, you again use the screw driver.
These control-buttons are available in all designs and colours of Niko's complete product line of switches.

Programming via PC

In order to meet the demand of the far-reaching integration of various techniques in the modern home, Niko created the opportunity of programming manually as well as by the use of a computer.

With the **PC-Link** module and the corresponding software, you can now add calendar and time functions as well as presence simulation.

PC-Link

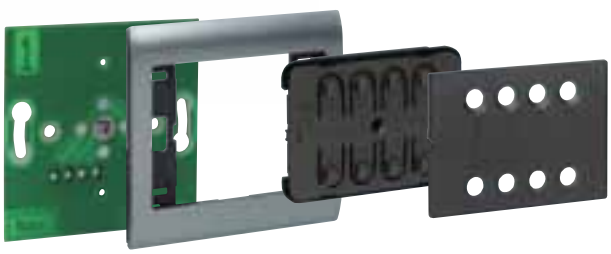
PC-Logic

The **PC-Logic** module in its turn offers extra possibilities with conditions and filters, as a result of which complex functions can easily be provided.

By connecting a modem, you can even control the installation from a distance.

Strong points of Nikobus

- Communication via a 2-wired bus
- Automatic power backup from other modules in case of one module break down
- Extendible at all times thanks to unique printed circuit board concept
- Programming as desired: manually as well as via PC
- Numerous functions on each output module
- Great amount of design possibilities for control elements
- Low cost getting started

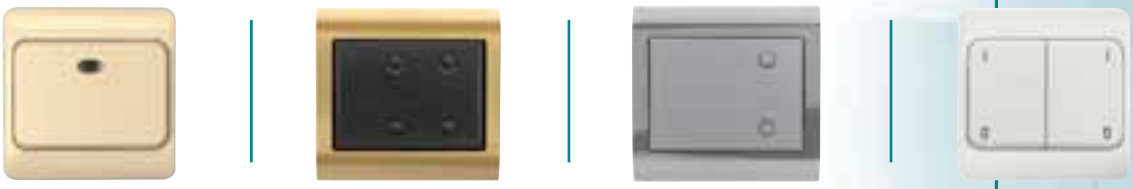


Overview Nikobus products

Control-buttons

In the Nikobus system you can choose between 2- up to 8-key intelligent control-buttons. These fit perfectly into Niko's product line of switches as far as design and colour are concerned.

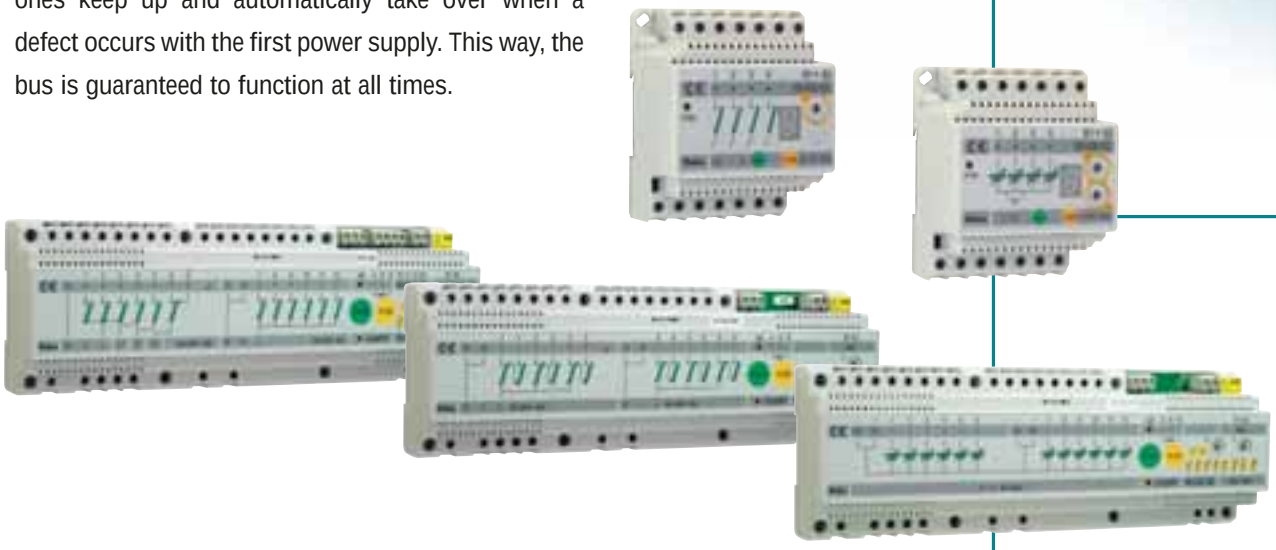
Replacing a 2-key control-button by one with 8 keys? An extra control element, another colour or shape? Thanks to the surface mounting based on the circuit board concept, this can be realized in no time.



Modular outputs

The output modules are the heart of the Nikobus installation. At present, a switching module, a shutter module and a dimcontroller are available. Depending on the type, you have 4 or 12 outputs at your disposal. You can freely assign a function to each output.

The output modules each contain one power supply. Only one of those power supplies is active for the entire installation. The other ones keep up and automatically take over when a defect occurs with the first power supply. This way, the bus is guaranteed to function at all times.



Interfaces

In order to make the best use of peripheral equipment, a product line of interfaces was constructed. These interfaces include programmable clocks, telephone interfaces, binary interfaces, twilight switches and interfaces to connect standard mechanical switches or push-buttons to the Nikobus.

Integration with RF

With the RF interface all wireless control elements can also be linked to Nikobus. As a result, you can build a flexible home in a new house. Moreover, you can now even enjoy all the advantages of Nikobus in case of renovations.

Remote controls

In order to complete the comfort, Niko has developed several remote controls. You can choose between the basic infrared remote control, the one with a screen or the radio frequency one with which the installation can even be controlled through walls. Optimal comfort within easy reach!

Integration

Allegretto

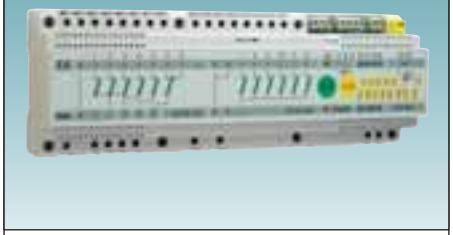
By simply pushing the button you can activate an entire ambiance. The lighting is dimmed, the shutters roll down, the room temperature is adjusted and… your favorite music is playing. This is just one example of a complete integration of the A44 or A88 audio distribution system in a Nikobus installation. The system can be controlled with infrared remote control, wired push-buttons, a hand held remote transmitter or wall mounted transmitters.

Access control GOOZE ARCHITECTURAL ACCESS CONTROL

Niko launches a new access control system. GOOZE represents high-end products with an exclusive design. The finish is made out of brushed and anodized aluminium and it is mounted on a mat black structure. The high-grade surface treatment guarantees the products to be highly corrosion-resistant and colourfast.

All modules, ranging from the lighting unit to the colour camera and the card reader, can be obtained separately. You can compose your system yourself – made to measure. The product line also includes various columns and letter boxes.

Moreover, GOOZE can de linked to the home automation system Nikobus… a team with the ambition to provide you with boundless comfort.



SWITCHING UNIT 05-000-02

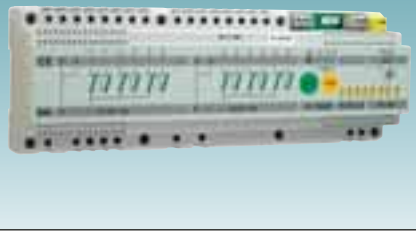
Pack: 1
The switching unit is provided with 12 internal relays for the switching of electric appliances. It has a galvanically isolated power supply for individual use and also a specific output for the bus cable, a detection circuit, a non-volatile memory, programming buttons, a microprocessor, three outputs for feedback of LEDs, two separate 230V inputs, relays and indicators for all functions, as well as diagnostic reporting.

Power supply: 230V/5W
Bus connection: 9V DC (SELV, safety extra low voltage)
Max. number of bus inputs: 256 per unit
External 230V inputs: 2 inputs with common N, 230V, 5mA
Switchable outputs: 12 x 230V/10A relays (11 x N.O., 1 x two way) remark: N.C. only 4A. Maximum 20 switching or shutter units or dimcontrollers per installation.
Status LED output: for the feed back of the outputs 10, 11 and 12. Power supply via a separate bell transformer (8 to 12 VAC)
Terminals: per terminal max. 4 x 1,5mm² or 2 x 2,5mm², bus, LED and external 230V inputs excluded (max. 2 x 1,5mm² or 1 x 2,5mm²)
Ambient temperature: 0°C to 50°C
Dimensions: DIN rail enclosure 14 modules wide (L: 251mm, H: 88mm, W: 60mm)
Mounting of control units: the units can be mounted both centrally and decentralised in a consumer unit.
PERMANENT-EEPROM memory (2 Kbyte)
CE compliant

Wiring diagram: see page 33
Nikobus user manual: www.niko.be

EEPROM memory 05-000-19

Pack: 1
EEPROM memory can be obtained separately for the switching unit.



SHUTTER UNIT 05-001-02

Pack: 1
The shutter unit controls motor-driven systems such as shutters, curtains and sun-blinds. The shutter unit is equipped with two pre-wired isolated circuits each with 3 x 2 relay outputs (6 motor controls), two 230V inputs with "logical" functions, and diagnostic reporting.

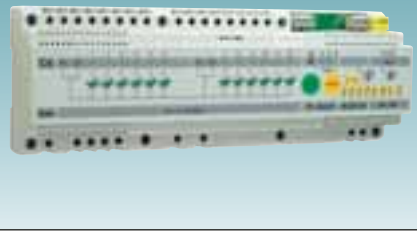
Power supply: 230V/5W
Bus connection: 9V DC (SELV, safety extra low voltage)
Max. number of bus inputs: 256 per unit
External 230V inputs: 2 inputs with common N, 230V, 5mA
Switchable outputs: 6 motors per unit. Maximum 20 switching or shutter units or dimcontrollers per installation.

Terminals: per terminal max. 4 x 1,5mm² or 2 x 2,5mm², bus and external 230V inputs excluded (max. 2 x 1,5mm² or 1 x 2,5mm²)
Ambient temperature: 0°C to 50°C
Dimensions: DIN rail enclosure 14 modules wide (L: 251mm, H: 88mm, W: 60mm)
Mounting of control units: the units can be mounted both centrally and decentralised in a consumer unit.
PERMANENT-EEPROM memory (2 Kbyte)
CE compliant

Wiring diagram: see page 34
Nikobus user manual: www.niko.be

EEPROM memory 05-000-19

Pack: 1
EEPROM memory can be obtained separately for the shutter unit.



DIMCONTROLLER 05-007-02

Pack: 1
The dimcontroller can be used to create light scenes. These scenes are stored in memory. A light scene can be called up by pressing a single key rather than having to operate each individual light source. The different light scenes can be set or changed by the user himself. The dimcontroller has 12 voltage-controlled 0-10V outputs. These outputs each control one or more power dimmers. In the connected dimmers, the control is galvanically isolated. Any 0-10V compatible dimmer with a galvanically isolated control input can be connected to the Nikobus dimcontroller. The dimcontroller is further equipped with 2 separate 230V inputs and diagnostic reporting. Connection of 1-10V dimmers is accomplished via the Niko converter (65-330).

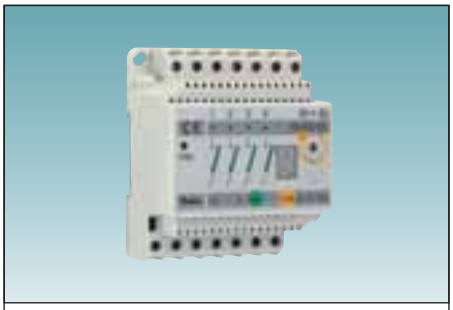
Power supply: 230V/5W
Bus connection: 9V DC (SELV, safety extra low voltage)
Max. number of bus inputs: 256 per unit
External 230V inputs: 2 inputs with common N, 230V, 5mA
Switchable outputs: 12 x 0-10V, 2mA outputs (use a 65-330 interface for a 1-10V current control). Maximum 20 switching or shutter units or dimcontrollers per installation.

Terminals: per terminal max. 4 x 1,5mm² or 2 x 2,5mm², bus and external 230V inputs excluded (max. 2 x 1,5mm² or 1 x 2,5mm²)
Ambient operating temperature: 0°C to 50°C
Dimensions: DIN rail enclosure 14 modules wide (L: 251mm, H: 88mm, W: 60mm)
Mounting of control units: the units can be mounted both centrally and decentralised in a consumer unit.
PERMANENT-EEPROM-memory (4 Kbyte)
CE compliant

Wiring diagram: see page 35
Nikobus user manual: www.niko.be

EEPROM memory 05-000-19

Pack: 1
EEPROM memory can be obtained separately for the dimcontroller unit.



COMPACT SWITCHING UNIT 05-002-02

Pack: 1
The compact switching unit is provided with 4 output contacts for switching electrical appliances. You can choose 16 functions, including switch on/off, push-button, impuls, sequencer or light scenes. For each push-button function you can also choose from 16 programmable running times and 3 operating times.
The modes are indicated by a 7 segment display. The module is NOT equipped with 230V input contacts. The small switching unit contains a built-in power supply for an entire Nikobus installation. The existing memory is identical with the one from the 12 channel unit.

Ambient temperature: 0°C to 50°C
Power supply: 230V/5W
2 terminals: per terminal max. 4 x 1,5mm² or 2 x 2,5mm²
Max. number of bus inputs: 256 per unit
Max. number of outputs: 4 per unit. Maximum 20 units per installation.
Relay: 230V/10A, 4 make contacts: max. 4 x 1,5mm² or 2 x 2,5mm²
Bus connection: 9V DC (SELV, safety extra low voltage)
2 terminals: per terminal max. 2 x 1,5mm²
Mounting of control units: the units can be mounted both centrally and decentralized.
Dimensions: 4 DIN
PERMANENT-EEPROM memory
CE compliant

Wiring diagram: p. 36

COMPACT DIMCONTROLLER 05-008-02

Pack: 1
The compact dimcontroller is provided with 4 voltage controlled 0-10V outputs that each control one or several power dimmers. The control is galvanically isolated in the connected dimmers. Every 0-10V compatible dimmer with a galvanically isolated remote control input can be connected to the Nikobus dimcontroller with which you can create light scenes. These light scenes are saved in the memory. By simply pressing one button, you can activate a light scenes without having to control each light point separately. The different light scenes can be set or changed by the user himself. The Niko line of 1-10V dimmers are connected via Niko's 0-10V to 1-10V convertor (65-330). The compact dimcontroller is provided with a built-in power supply for an entire Nikobus installation. The existing memory amounts to half of the memory in the 12 channel dimcontroller. Apart from the standard 2 button and 4 button modes from the 12 channel dimcontroller, there are also 2 new 1 button modes.
Mode13: Dim on/off, 1 button mode, press short; switching between off and max value. Press long; dimming up/down.
Mode14: Dim on/off with memory, 1 button mode, press short; switching between off and last value. Press long: dimming up/down.

Ambient temperature: 0°C to 50°C
Power supply: 230V/5W
2 terminals: per terminal max. 4 x 1,5mm² or 2 x 2,5mm²
Max. number of bus inputs: 256 per unit
Max. number outputs: 4 per unit. Maximum 20 units per installation.
Outputs: 4 x 0-10V, 2mA outputs. Per terminal max 4 x 1,5mm² or 2 x 2,5mm² (Use a 65-330 interface for a 1-10V power control).
Bus connection: 9V DC (SELV, safety extra low voltage)
Terminals: per terminal max. 2 x1,5mm²
Mounting of control units: the units can be mounted both centrally and decentralised in a consumer unit.
Dimensions: 4 DIN
PERMANENT-EEPROM memory
CE compliant

Wiring diagram: p. 37

PC-LINK 05-200
Calendar unit with PC control

Pack: 1
Presence simulation, time and calendar functions.
The installation is configured via a PC, which can subsequently be removed. The optional DCF77 receiver (05-185) ensures automatic switchover between winter- and summertime. Manual correction is also possible. This unit also allows remote programming. All that is needed is the connection of a (Hayes compatible)
modem.
The standard package includes various adapters (connectors for PC and modem) and Nikobus software 05-202-02.

Available calendar regimes:
- weekday regime
- weekend regime
- continuous regime
- exceptional regime
- presence simulation

Number of time switches:
- 100 channels
- 500 time slots

Ambient temperature: 0°C to 50°C
Power supply: 230V/5W
2 terminals: max 4 x 1,5mm² or 2 x 2,5mm² each
Bus connection: 9 V DC (ZLVS, safety extra low voltage) 2 terminals: max 2 x 1,5mm² each
Mounting: the units can be mounted both centrally and decentralized in a consumer unit
Dimensions: 4 DIN
CE compliant

Wiring diagram: p. 48

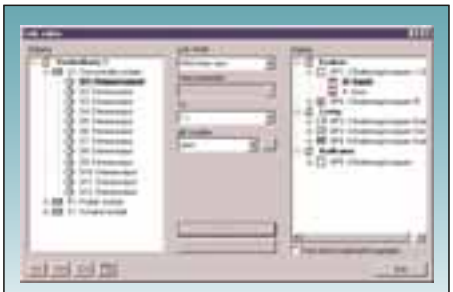
PC-LOGIC 05-201
Logic unit with PC control

Pack: 1
The power of this unit resides in its numerous logic functions, which accommodate all possible conditions. In addition, it has 6 digital inputs for external contacts and sensors. The unit is configured on a PC, which can subsequently be removed. The standard package includes various adapters (connectors) and Nikobus software 05-202-02. The logic unit contains 2 bus connections.
All outputs need to be connected to the first bus, all controls to the second one.

Available logic inputs:
- 64 inputs
- max 12 inputs at a time
- 6 independent binary inputs

Ambient temperature: 0°C to 50°C
Power supply: 230V/5W
2 terminals: max 4 x 1,5mm² or 2 x 2,5mm² each
Bus connections: 2 bus connections, 9 V DC (SELV, safety extra low voltage) 2 x 2 terminals: max 2 x 1,5mm² each
Mounting: the units can be mounted both centrally and decentralized in a distribution box
Dimensions: 4 DIN
CE compliant

Wiring diagram: p. 48



NIKOBUS SOFTWARE (CD-ROM) 05-202-02

Pack: 1
The Nikobus software has a user-friendly and intuitive structure. Programming errors are excluded. The software is clearly structured and a report is printed out for use as documentation during the Nikobus installation. In the software you can choose one of the following languages: Dutch, French, English and German.

Minimum configuration: Pentium 100MHz, 32MbRAM, SVGA 800x600
Compatible with Windows 95, 98 2000, NT, Millenium, XP

Can only be used in combination with PC-Link (05-200) and PC-Logic (05-201). Nikobus software is always supplied with these units.

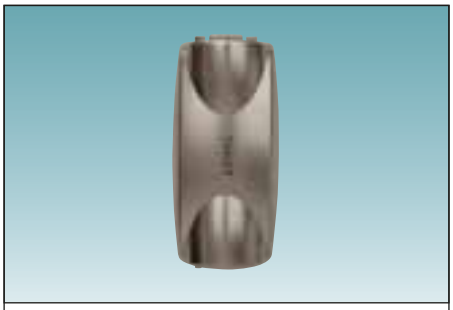
AUDIO-LINK 05-205

Allegretto

Pack: 1
With the Audio-Link you can connect the Allegretto A44 or A88 audio distribution system to all Nikobus control- buttons. This way you can control the music in a room by using Nikobus push-buttons.

General characteristics:
- LCD-screen containing 2 lines of 16 characters for programming and status display
- 3 buttons for configuration and retrieving status
- 2 inputs for connection of Nikobus
- 6 digital inputs for controlling audio via voltage free contacts
- 230V connection
- RJ12 connection for connection of A44 or A88 with supplied cable
- Cover 4TE for DIN-rail mounting
- etc

Wiring diagram: p. 49



SMS MODEM **05-203**

Pack: 1
Modem for SMS link; always has to be used in combination with PC-Logic (ref.: 05-201)

The SMS-modem with PC-Logic enables you to switch from a distance. You can program 10 commands containing 4 numbers and maximally 25 other characters. Moreover, the SMS modem warns you in case of emergencies. You can program 10 messages containing maximally 150 characters which can be sent to maximally 4 mobile phone numbers in case of an emergency.
If you want to use the SMS link, the SMS modem needs a SIM card (subscription of pre-pay). This card is not included in the package. The wall holder, adaptor, mobile phone antenna and the connecting cables are standard accessories. The software that is needed for programming is integrated in the Nikobus software version v2.

WALL-MOUNTED PRINTED CIRCUIT BOARDS IN GENERAL

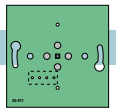
The wall-mounted printed circuit board contains all electrical and mechanical provisions that are needed to connect one or more push-buttons to the bus and to transmit telegrams. A Nikobus wall-mounted printed circuit board is mounted on a single standard flush mounting box for horizontal screw connection. For mounting multiple cover plates no additional flush mounting boxes are needed. From the flush mounting box you can work downwards, upwards, to the left or to the right. This means that the Nikobus push-buttons can be extended without any additional drilling or channeling work.
The wall-mounted printed circuit board is supplied with a 4-pin connector (2 for Nikobus, 2 for LED or IR push-button power supply). The dual wall-mounted printed circuit board, 05-012-05, has 8 connectors for a separate second LED control or for a push-button with IR receiver. There is also a single wall-mounted printed circuit board with metal bridge (see page 10-7) for use in very uneven walls or in combination with other metal bridges, e.g. with socket outlets, thermostats and/or conventional switches.
A set of claws for boxes without screw connection can be ordered separately.

Connector: 4 pin (8 pin for 05-012-50)
Mounting push-button: with 1 central screw
Wall mounting: by means of screws or a set of claws.

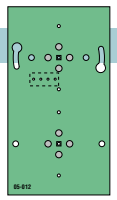
Wiring diagram: p. 39-40
Nikobus user manual: www.niko.be

CIRCUIT BOARD

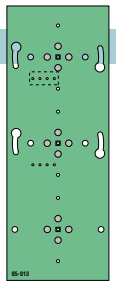
05-011 single



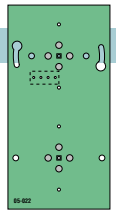
05-012 2 x vertical, centre distance 60mm



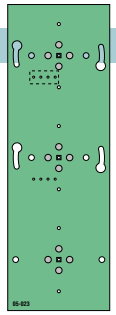
05-013 3 x vertical, centre distance 60mm



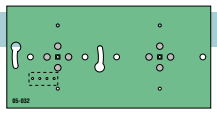
05-022 2 x vertical, centre distance 71mm



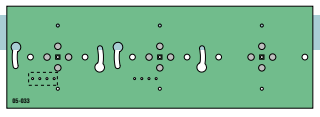
05-023 3 x vertical, centre distance 71mm



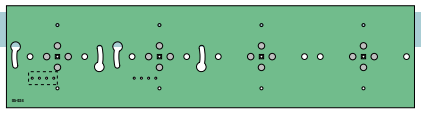
05-032 2 x horizontal, centre distance 71mm



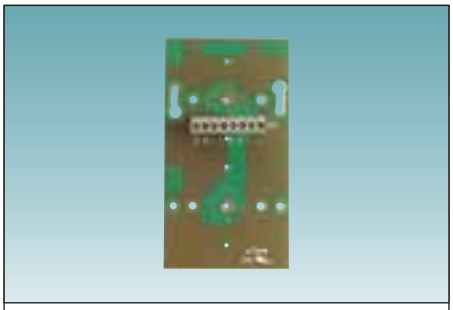
05-033 3 x horizontal, centre distance 71mm



05-034 4 x horizontal, centre distance 71mm



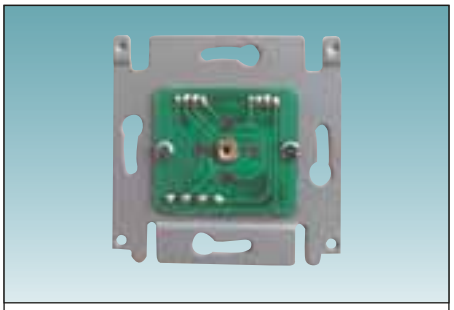
Pack: 10
Mounting push-button: with one central screw
Wall mounting: with screws or claws



CIRCUIT BOARD **05-012-50**
2 x vertical with double connection, centre distance 60mm

Pack: 10
For the connection of two single push-buttons with LED or for a combination of a push-buttons with LED with a single or double push-button with IR-receiver.
Connector: 8-pole
Mounting push-button: with one central screw
Wall mounting: with screws or claws (05-010).

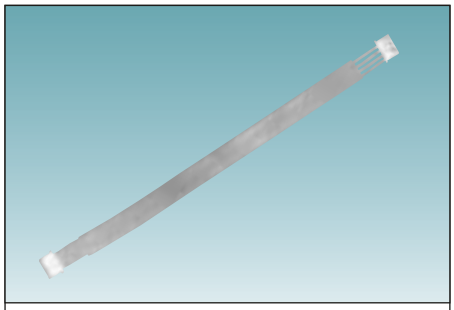
Connecting scheme: p.40
Manual Nikobus: www.niko.be



WALL-MOUNTED PRINT **05-011-10**
single with frame

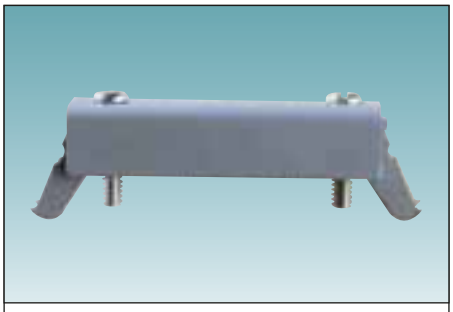
Pack: 10
For connection of a single or double push-button in an existing flush mounting box or for use on very uneven walls. During renovation several wall-mounted prints with bridge can be clicked together when using already existing flush mounting boxes. Use flexible cable 05-011-12 to connect these units. The wall-mounted print with frame can also be combined with all other Niko flush mounting devices.
Connector: 4 pin (8pin for 05-012-50)
Mounting push-button: with 1 central screw
Wall mounting: by means of screws or internal claws

Wiring diagram: p. 39-40



FLEXIBLE **05-011-12**
CONNECTING CABLE

Pack: 10
This flexible connecting cable with connectors is used to connect several single wall-mounted prints with metal bridge.



CLAW FIXTURE **05-010**

Pack: 20
The claw fixture can be used to fasten wall-mounted prints in flush mounting boxes that are not provided with screws.

NIKOBUS PUSH-BUTTONS IN GENERAL

In the Nikobus system, the push-buttons are used to transmit data.
The Nikobus push-button requires no setting or adjustment whatsoever. Each push-button has a unique address. The push-button is fixed to a wall-mounted print by means of one screw. Contact springs are used for the connection between the push-button and the wall-mounted print.

Ambient operating temperature: 0°C to 50°C
Bus connection: 9V DC (SELV, safety extra low voltage)
Nominal voltage: 9V DC (SELV, safety extra low voltage)
Nominal supply voltage for LEDs: 8 to 12Vac
Nominal supply voltage for IR push-buttons: 12Vac 20mA
Address: 22 bit (approx. 4 million different codes)
Max. operating time: 8s.
Min. operating time: 0,5s.
Connection to the Nikobus: two-wire connection
Connection of push-button with LED: four-wire connection
Connection of IR push-button: four-wire connection
Wiring diagram: p. 31
Nikobus user manual: www.niko.be

2 KEY PUSH-BUTTON 05-060

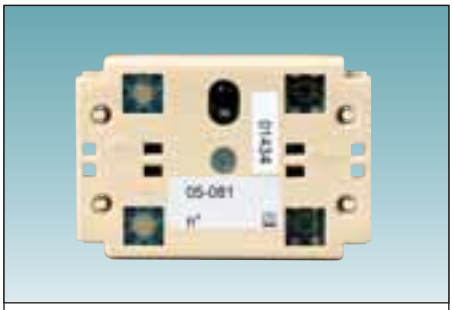
Pack: 1
This push-button allows 2 control operations to be carried out. The rockers must be ordered separately.

Buttons: 2
Wiring diagram: p. 41

2 KEY PUSH-BUTTON WITH LED 05-061

Pack: 1
This push-button can be used to control 2 functions.
It is provided with a red LED. The rockers must be ordered separately.
Accompanying rockers cfr. page 32.

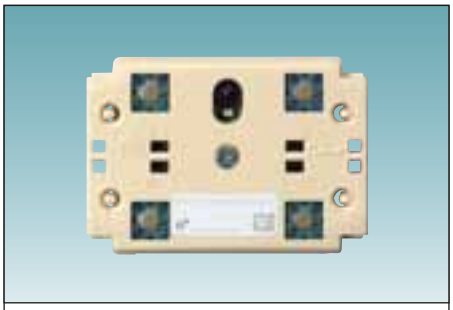
Buttons: 2
Wiring diagram: p. 41



2 KEY PUSH-BUTTON WITH IR RECEIVER 05-081

Pack: 1
This push-button can be used to control 2 functions.
The rockers must be ordered separately.
Accompanying rockers cfr. page 32.

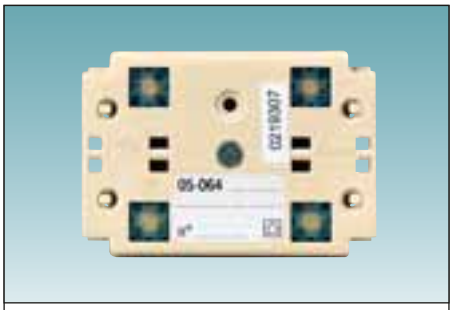
Buttons: 2
Wiring diagram: p. 41



4 KEY PUSH-BUTTON WITH IR RECEIVER 05-085

Pack: 1
This push-button can be used to control 4 functions.
The rockers must be ordered separately.
Accompanying rockers cfr. page 32.

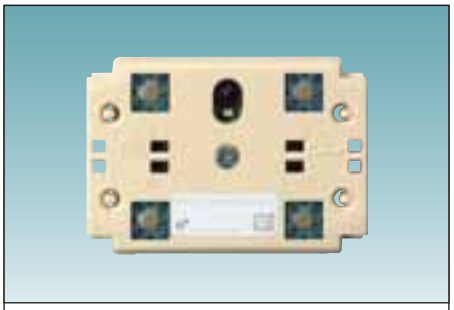
Buttons: 4
Wiring diagram: p. 41



4 KEY PUSH-BUTTON 05-064

Pack: 1
This push-button can be used to control 4 functions.
The rockers must be ordered separately.
Accompanying rockers cfr. page 32.

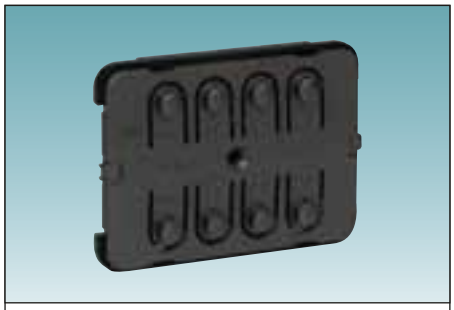
Buttons: 4
Wiring diagram: p. 41



4 KEY PUSH-BUTTON WITH IR RECEIVER AND IDENTICAL ADDRESSES 05-091, 05-092, 05-093, 05-094, 05-095

Pack: 1
This push-button allows the same actions to be called from different rooms without each time having to program them.
If several actions are to be programmed within the same project, using IR push-buttons with identical address, they can be grouped in max. 5 groups each having their own ordering reference: 05-091, 05-092, 05-093, 05-094, 05-095.
The rockers must be ordered separately.
Accompanying rockers cfr. page 32.

Buttons: 4
Wiring diagram: p. 41



2-, 4- and 8 key push-button

Pack: 1
These push-buttons are a variation on the standard push-button. They can only be used for the da Vinci and Cirio line. There are 2, 4 or 8 key push-buttons. Accompanying rockers cfr. page 32.

The central plate has to be ordered separately.

Control-buttons: 2

Titanium	44-072
Graphite	45-072
Bronze	46-072
Sterling	47-072
Cobalt	48-072
Sepia	49-072

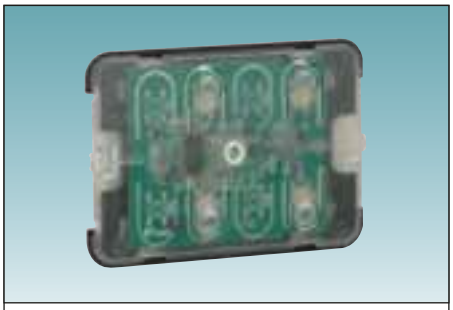
Control-buttons: 4

Titanium	44-074
Graphite	45-074
Bronze	46-074
Sterling	47-074
Cobalt	48-074
Sepia	49-074

Control-buttons: 8

Titanium	44-078
Graphite	45-078
Bronze	46-078
Sterling	47-078
Cobalt	48-078
Sepia	49-078

Wiring diagram: p. 41



PUSH-BUTTON WITH FEEDBACK LED 05-074

Pack: 1
The push-button gives the user feedback via LEDs. The four buttons indicate which clock table in the installation is active: week, weekend, exception or simulation. There are no other feedback options. This push-button can only be used in combination with the PC-Link (05-200).
Power supply: 12V~, via separate transformer
Bus connection: 9V DC (SELV, safety extra low voltage)
Maximum operating time: 8s.
Maximum number of push-buttons with feedback LEDs per Nikobus installation: 10
Connection to the Nikobus: two-wire connection (not polarised)
Ambient temperature: 0°C to 50°C

Central plates need to be ordered separately.

4 key central plate with symbols

Control buttons: 4

Titanium	44-084-01
Graphite	45-084-01
Bronze	46-084-01
Sterling	47-084-01
Cobalt	48-084-01
Sepia	49-084-01

Wiring diagram: p. 41

IR HAND HELD TRANSMITTER 05-088
4 channels, 4 buttons

Pack: 1
This IR hand held transmitter can be used to control 4 functions for 4 channels. A total of 16 functions can thus be programmed with the Nikobus. The IR rays remain confined to the room in which the remote control is used. The hand held transmitter is provided with an indicator LED.

Buttons: 4 x 4
Power supply: 2 batteries 1,5V type AAA-LR03
Nikobus user manual: www.niko.be

INFRARED REMOTE CONTROL 05-089
10 channels, 4 buttons

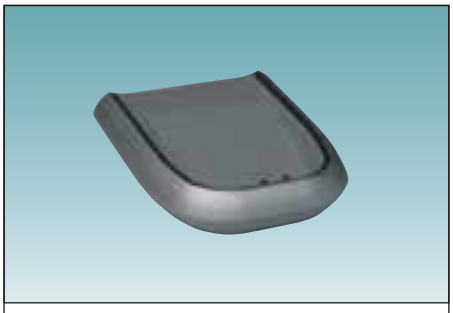
Pack: 1
This IR universal hand held transmitter can be used to control 4 functions for 10 channels. A total of 40 functions can thus be programmed with the Nikobus. The IR rays remain confined to the room in which the remote control is used. By keying in a three-digit code the remote control can be programmed for all common TV, video and satellite equipment. Several devices can be operated with this remote control unit.

Buttons: 10 x 4 for Nikobus + additional buttons for TV, video and satellite.
Power supply: 2 batteries 1,5V type AAA-LR03
Nikobus user manual: www.niko.be

PRONTO 05-090-10
WITH NIKOBUS APPLICATION
10 channels, 30 program buttons

Pack: 1
The Pronto IR universal hand held transmitter with Nikobus application can be used to control 30 functions in 10 rooms. A total of 300 functions can thus be programmed with the Nikobus.
Up to 8 scene buttons can be programmed per room. The user can choose between 2 lay-outs. The IR rays remain confined to the room in which the remote control is used. The remote control is equipped with a touch screen and can also be programmed for all common TV, video and satellite equipment. Several devices can be operated with this remote control unit. The Nikobus application can be downloaded free of charge from our website.

Buttons: 10 x 30 for Nikobus + additional buttons for TV, video, audio and satellite.
Power supply: including rechargeable batteries
Nikobus user manual: www.niko.be



PRONTO CORRESPONDING CHARGING STATION 05-090-11

Pack: 1

Power supply: including rechargeable batteries

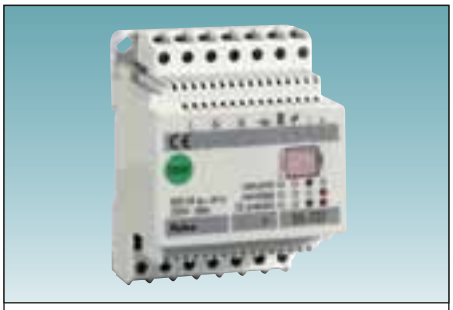
Nikobus user manual: www.niko.be

PROGRAMMING BLOCK 05-099
for programming of push-buttons

Pack: 1
The programming block provides an easy means of programming the Nikobus push-buttons. It is connected to the bus by means of two terminals. The push-button is slipped into the programming block, programmed and marked on the label provided. The installer can then program the push-buttons in advance, which results in a considerable time saving during the mounting of the push-buttons.

Attention: not suitable for 2-, 4- and 8-key push-button.

Nikobus user manual: www.niko.be

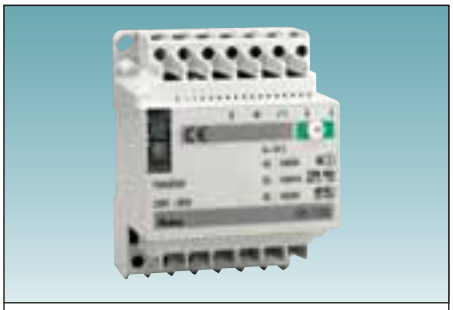


UNIVERSAL MODULAR DIMMER 600VA 05-707

Pack: 1
Microcontroller-based modular dimmer for DIN rail mounting. Switchable from phase control for inductive loads to reversed phase control for resistive and capacitive loads (electronic transformers).
Control input for 0/10V or 1/10V control signal, with automatic changeover. The control mechanism is galvanically isolated from the mains and the power part. 100% dimmable both for 0/10V and for 1/10V.
Dimmer settings via 4 DIP switches
CAB signal filter

Protections: Electronic short-circuit, overvoltage and asymmetry detection. Self-restoring thermal cut-out.
Indicators: Indicator LEDs for settings and protective modes.
Control: by dimcontroller 05-007, or, if connected to switching unit, via electronic potentiometer 0-10V. Ref. 65-230.
Max. load: 600VA
Min. load: 35W
Dimensions: DIN rail enclosure 4 modules wide

Wiring diagram: p. 47
Setting DIP switches: p. 47
Nikobus user manual: www.niko.be



OTHER DIMMING POSSIBILITIES

Pack: 1
Integration of modular dimmers and Silicon Control dimmers
Many other dimming solutions are possible with the Nikobus system. One is the use of the Nikobus switching unit in combination with a modular dimmer.
The wide range of Niko modular dimmers can be fully integrated with the Silicon Control dimmers (see chapter Light Control).

For each group of lamps to be dimmed, a modular dimmer adapted to the light source is available.

Some examples:
- **05-728:** modular dimmer for resistive and inductive loads 1,000VA.
- **05-705:** modular dimmer for electronic transformers 500VA, without memory.
- **05-725:** modular dimmer for electronic transformers 500VA, with memory.
- **05-704:** modular dimmer for resistive and inductive loads 450W

Dimensions: DIN rail enclosure 4 modules wide

Nikobus user manual: www.niko.be

SILICON DIMMER 12A ANALOGUE CONTROL OR PUSH-BUTTON CONTROL

65-412

Pack: 1

Number of circuits x max. rated loading: 1 x 2760VA
Min. rated loading per circuit: 100W

Universal dimmer for regulation of dimmable sources of lighting:
R: resistive loads – incandescent and halogen 230V~
L: inductive loads – wire-wound transformers
C: capacitive loads – electronic transformers (no electronic ballasts – ECG)
All combinations (R, L, C) are allowed. No adaptation to the type of load required. Over-voltage, over-current, short-circuit and temperature protection with auto reset and LED indication. Extensive control options: push-button, analogue 0/10V or current control 1/10V. Setting of a minimum level between 0 and 30%. Setting of a maximum level between 50 and 100%. Local operation with priority function. Built-in filter for power modem signals. Individual temperature measurement for each cooling surface. Plug-in control interface for service. Extensive help for users and installers: display of voltage, current, temperature and status of the protection circuits on the front plate. Conforms to the European standards EN60669-2-1 and EN55015.

Power supply voltage: 230V~ ±10%; 50Hz
Leakage current (to earth): 0,7mA per dimmer
Power supply terminal, max. wire section: 4mm² or 2 x 2,5mm²
Low voltage terminal, max. wire section: 2,5mm² or 2 x 1,5mm²
Power supply output for control: 22,5V DC, 250mA
Number of control inputs: 1
Maximum temperature of the housing Tc: 85°C
Wiring insulation: 2,5kV
Wiring diagram: p. 49
Weight: 4,5kg
Dimensions: H 303mm x W 200mm x D 100mm

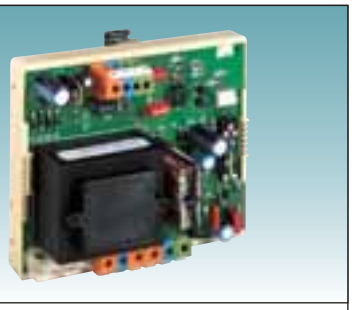
SILICON DIMMER 16A ANALOGUE CONTROL OR PUSH-BUTTON CONTROL

65-416

Pack: 1

Number of circuits x max. rated loading: 1 x 3680VA
Min. rated loading per circuit: 100W
Universal dimmer for regulation of dimmable sources of lighting only:
R: resistive loads – incandescent and halogen 230V~
L: inductive loads – wire-wound transformers
C: capacitive loads – electronic transformers (no electronic ballasts – ECG)
All combinations (R, L, C) are allowed. No adaptation to the type of load required. Over-voltage, over-current, short-circuit and temperature protection with auto reset and LED indication. Extensive control options: push-button, analogue 0/10V or current control 1/10V. Setting of a minimum level between 0 and 30%. Setting of a maximum level between 50 and 100%. Local operation with priority function. Built-in filter for power modem signals. Individual temperature measurement for each cooling surface. Plug-in control interface for service. Extensive help for users and installers: display of voltage, current, temperature and status of the protection circuits on the front plate. Conforms to the European standards EN60669-2-1and EN55015.

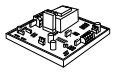
Power supply voltage: 230V~ ±10%; 50Hz
Leakage current (to earth): 0,7mA per dimmer
Power supply terminal, max. wire section: 4mm² or 2 x 2,5mm²
Low voltage terminal, max. wire section: 2,5mm² or 2 x 1,5mm²
Power supply output for control: 22,5V DC, 250mA
Number of control inputs: 1
Maximum temperature of the housing Tc: 85°C
Wiring insulation: 2,5kV
Wiring diagram: p.49
Weight: 4,5kg
Dimensions: H 303mm x W 200mm x D 100mm



1/10V CURRENT-SINK CONTROL

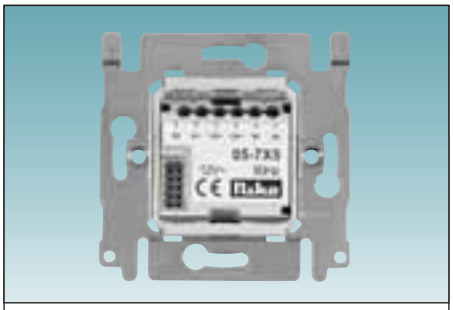
65-330

Pack: 1



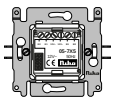
Number of circuits x max. load:
1 x 100mA + 1 x 6A
Min. load per circuit: 10mA
Controller for electronic control gear (E.C.G.) dimmable with 1/10V current-sink control signal according to the EN60929 Standard. Particularly suited for electronic H.F. fluorescent ballasts. Galvanic isolation. Setting of minimum and maximum level.
Power supply automatically cut off by integrated relay. Controls all systems compatible with the EN60929 Standard. For fluorescent and compact lamps see page number 12-16. DIN rail mounting. Interfacing 0/10V voltage to 1/10V current sink control signal.

Category: 3
Power supply for control electronics: 24VDC 160mA
Control inputs: 1
Max. cable section power supply: 2 x 2,5mm²
Power supply: 230V~ 50Hz
Wiring diagram: S265230 p. 39
Weight: 0,440kg
Dimensions: H 71mm x W 117mm x D 96mm



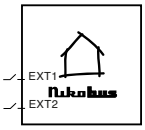
NIKOBUS-ACTOR
+ 2 input terminals

Base:
with claws 05-795
Pack: 1



for screwing 05-785
Pack: 1

For use in combination with sensor XX-782, XX-783 or XX-784. For sensors see p. 02-27
The input terminal provided can be connected to a switch or push-button, to permit use of the equipment from another location, or as part of a group.



Wiring diagram: p. 50

Electronic clock thermostat

- Day/week programming
- Programming precision: approx. 0,5°C
- Reserve for power cuts
- Permanent memory
- Can be used manually
- Max. 24 programmable switch movements
- 3 temperature levels: night level, day level and anti-freeze level
- Permanent programmable time or temperature display

Symbol:

To be combined with Actor 05-795

Set: sensor + central plate

PB20

Cream: 12-781
White: 32-781
Pack: 1

PB20 soft

Black: 02-781
Pack: 1

da Vinci / Cirio

Titanium: 44-781
Graphite: 45-781
Bronze: 46-781
Sterling: 47-781
Cobalt: 48-781
Sepia: 49-781
Pack: 1

Wiring diagram: p. 50

Electronic clock

- Day/week programming
- Reserve for power cuts
- Permanent memory
- Can be used manually
- Max. 24 programmable switch movements
- 1 or 2 channels
- Minimum changeover time 1min.

To be combined with Actor 05-795

Set: sensor + central plate

PB20

Cream: 12-782
White: 32-782
Pack: 1

PB20 soft

Black: 02-782
Pack: 1

da Vinci / Cirio

Titanium: 44-782
Graphite: 45-782
Bronze: 46-782
Sterling: 47-782
Cobalt: 48-782
Sepia: 49-782
Pack: 1

Wiring diagram: p. 50

Motion detector PIR 180°

- Detection range: 8m
- Turn-off delay: programmable from 5s. to ±30 min.
- Light sensitivity: light sensor programmable from 2 to 1000Lux
- Recommended built-in height: 0,8m to 2,2m
- Detection angle: 180° horizontally / 30° vertically
- Can be used manually
- Includes stair function

Symbol:

To be combined with Actor 05-795

Set: sensor + central plate

PB 20

Cream: 12-784
White: 32-784
Pack: 1

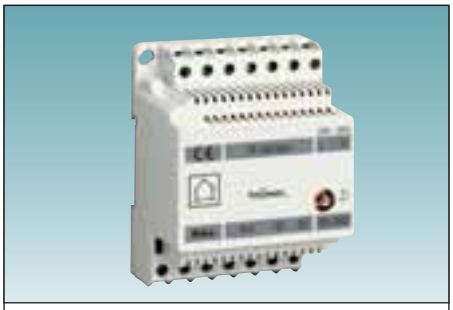
PB 20 soft

Black: 02-784
Pack: 1

da Vinci | Cirio

Titanium: 44-784
Graphite: 45-784
Bronze: 46-784
Sterling: 47-784
Cobalt: 48-784
Sepia: 49-784
Pack: 1

Wiring diagram: p. 50



MODULAR RF-INTERFACE 05-300
receiver of RF push-buttons and hand held transmitter

Pack: 1

This RF receiver allows all RF wall-mounted transmitters (wireless) and RF hand held transmitters to be used with the Nikobus home automation system. In principle, only 1 modular RF interface has to be provided in the installation. Several RF receivers can be included to observe the admissible distance.

Remark: when using a metal distribution board, the antenna 05-309 can guarantee the reception, provided that this antenna is placed outside the distribution board.

Receiver range: approx. 30m in building, 100m in open field
Power supply: 230V / 1W
Dimensions: DIN rail enclosure 4 modules wide
Wiring diagram: p. 42
Nikobus user manual: www.niko.be

MODULAR BINARY INPUT 05-054
for 4 potential-free contacts

Pack: 1

This binary input module contains 4 digital inputs for potential-free contacts. A manual/automatic switch and status LED is provided for each input. When the contact closes, a telegram is transmitted. When the contact opens, another telegram is transmitted.
Any programming whatsoever can be assigned during closing and opening.
The binary input module is connected to the Nikobus via the modular interface (05-055) and is supplied by it. The connection is accomplished via a ten-pin connector that is connected laterally to the modular interface. Typical applications are: contacts of telephone interfaces, alarm systems, signalling contacts, blind control units…

Number of binary inputs: 4 potential-free contacts
Ambient operating temperature: 0°C to +50°C
Input supply voltage: 5V DC supplied by the module itself
Input cable length: max. 30m (between external contacts and modular binary input)
Dimensions: DIN enclosure 2 modules wide
Module power supply: via modular interface 05-055
Wiring diagram: p. 44
Nikobus user manual: www.niko.be

End of life product (October 2004)

MODULAR INTERFACE 05-055

Pack: 1

The modular interface is connected laterally by a 10-pin connector to the modular digital clocks, the modular twilight switch and the modular contact interface, and converts their commands into a Nikobus telegram. The power supply for the clock, the twilight switch and the modular binary input is supplied via the modular interface. Data transfer protection: the modular interface has a built-in "control" which ensures that a telegram is only transmitted if the bus is free. In the case of a bus conflict the telegram is automatically re-transmitted.
Since 4 channels are available on the modular interface, combinations of several Nikobus modular components, employing up to 4 channels, can simultaneously be connected to one modular interface.
Examples:
- one modular four-channel clock
- or two modular two-channel clocks
- or four modular twilight switches
- or one modular two-channel clock and two modular twilight switches

Dimensions: DIN rail enclosure 2 modules wide
Power supply: 230V/1W
Wiring diagram: p. 43
Nikobus user manual: www.niko.be

End of life product (October 2004)

MODULAR LIGHT SENSOR 05-180

Pack: 1
The modular light sensor is an electronic switch that is operated by the action of the light on a photocell. Applications: control of lighting, shutters, sunblinds.
The modular light sensor is connected to the Nikobus via the modular interface (05-055) and supplied by it. Two Nikobus telegrams are transmitted: one when the light intensity falls below the threshold value and one when it exceeds this value.

Light sensor ambient operating temperature: -10°C to +55°C
Photocell ambient temperature: -30°C to +70°C
Setting ranges: 2-300Lux or 200-20,000Lux
Switch position indication: LED
Light sensor protection degree: IP20
Photocell protection degree: IP65
Distance photocell to light sensor: max. 100m
Dimensions: DIN rail enclosure 2 modules wide
Power supply: via modular interface 05-055

Wiring diagram: p. 44
Nikobus user manual: www.niko.be

End of life product (October 2004)

MODULAR TWO-CHANNEL CLOCK 05-182

Pack: 1
The digital clock allows electrical appliances to be switched according to a time program. Each Nikobus function can be programmed. The clock has a week program allowing individual daily programming for each device. The two-channel clock has a random presence simulation function. The clock is connected to the Nikobus via the modular interface (05-055) and is supplied by it.

Channels: 2
Program: week, block formation of days
Autonomy in case of power failure: 150hrs
Battery charge time: 140hrs
Holiday program: up to 99 days
Ambient operating temperature: 10°C to +55°C
Switch position indication: yes
Shortest switching time: 1 minute
Programmable: every minute
Switching commands: 42
Summer/wintertime: manual
Sealing: cap and clamp cover provided
Random generator: programmable
Display: LCD
Time deviation: approx. 5 minutes/year
Dimensions: DIN rail enclosure 2 modules wide
Power supply: via modular interface 05-055

Wiring diagram: p. 43
Nikobus user manual: www.niko.be

End of life product (October 2004)

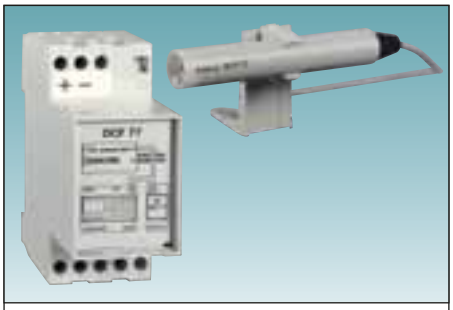
MODULAR FOUR-CHANNEL CLOCK 05-184

Pack: 1
The digital clock allows electrical appliances to be switched according to a time program. Each Nikobus function can be programmed. The clock has a week program allowing individual daily programming for each device. The clock is connected to the Nikobus via the modular interface (05-055) and is supplied by it.

Channels: 4
Program: week, block formation of days
Autonomy in case of power failure: 72hrs
Battery charge time: 70hrs
Ambient operating temperature: -10°C to +45°C
Switch position indication: yes
Shortest switching time: 1 minute
Programmable: every minute
Switching commands: 322
Summer/wintertime: manual or automatic via receiver 05-185
Sealing: cap and clamp cover provided
Display: LCD
Time deviation: approx. 5 minutes/year if not connected to receiver 05-185
Dimensions: DIN rail enclosure 6 modules wide
Power supply: via modular interface 05-055

Wiring diagram: p. 43
Nikobus user manual: www.niko.be

End of life product (October 2004)



ATOMIC CLOCK RECEIVER WITH MODULAR POWER SUPPLY 05-185

Pack: 1
The atomic clock receiver consists of a receiver with built-in antenna and a modular power supply. The receiver is connected to the four-channel clock (05-184) via a two-wire connection. The DCF77 receiver ensures perfect time and date synchronisation with the Braunschweig atomic clock, so that summer- and wintertime are automatically set.

Power supply width: DIN rail enclosure 2 modules wide
Antenna dimensions:
H 50mm x W 100mm x D 40mm
Power supply: 230V

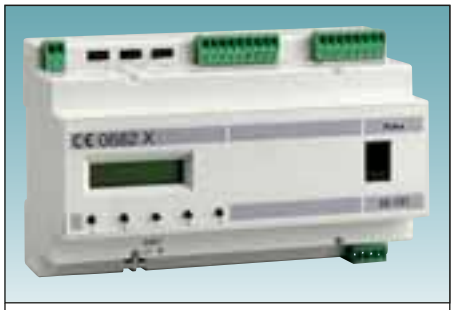
Wiring diagram: p. 45
Nikobus user manual: www.niko.be

TELEPHONE INTERFACE 1 CHANNEL 05-190

Pack: 1
The Nikobus telephone interface allows the remote control of appliances via the telephone network. The control device is either a push-button telephone or a push-button hand held remote control (answering machine, remote control). The devices must be equipped with dual tone multifrequency (DTMF) dialling. Feedback on the switching status of the output relay is provided by means of by tone signals. The built-in relay can be operated locally via the push-buttons on the front side or via an externally connected push-button.
The switching function via the telephone line is protected by a 4-digit code. The numeric code and the number of ringing tones are set on the front side of the unit with mini rotary switch settings. Two LEDs show the relay switching status (on/off) and the interface status (called/standby). The switch contact can be connected directly to the consumer or to the Nikobus units via external input A or B.

Power supply telephone interface: 230VAC, 1,5VA
Relay contact: 10A
Ringing frequency: 23Hz to 54Hz
Ambient operating temperature: -5°C to +45°C
European approval:
C TR 21
BAPT 23 ZV 5
73/23/EWG
89/336/EWG
Dimensions: DIN rail enclosure 4 modules wide

Wiring diagram: p. 45
Nikobus user manual: www.niko.be

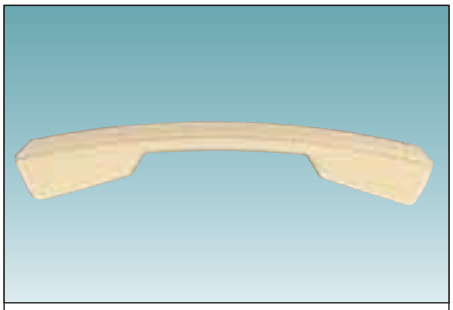


TELEPHONE INTERFACE 4 CHANNELS Dutch: 05-191; French: 05-191-20; German: 05-191-30; English: 05-191-40

Pack: 1
The Niko-telecontrol is a bi-directional telephone interface for the remote control of appliances. Feedback on the switching status is provided via recorded messages. The device is also capable of
autonomously selecting 4 pre-programmed numbers and displaying up to 4 recorded alarm messages. These messages are initiated by contact inputs that are controlled e.g. from the Nikobus switching unit.
For activation of the appliances the Niko-telecontrol is equipped with 4 open collector outputs that can be connected to the Nikobus via external relays. These external contacts can be connected directly via external inputs A and B of the Nikobus units or via the modular binary input unit (05-054).
The switching function via the telephone line is protected by a 4-digit code. If in case of an alarm the connected telephone is in use, the connection is automatically released. If an alarm message sent out is not acknowledged by the person called, the local alarm output is activated. Acknowledgment is via a push-button telephone or via a push-button hand held remote control (answering machine, remote control). The devices must be equipped with dual tone multi-frequency (DTMF) dialling. Programming occurs via the built-in LCD display and the 5 buttons. An emergency power supply (UPS) can be used to guarantee the complete functionality of the telephone interface during a power failure.

Power supply telephone interface:
230VAC, 5,2VA or 12VDC 0,3W
Open collector outputs:
4 x 24VDC, 50mA (short-circuit-proof)
Open collector local alarm:
1 x 24VDC, 50mA (short-circuit-proof)
Alarm inputs: 4 x potential-free N.O. contacts (pulse duration > 50ms)
Ringing frequency: 20Hz to 60Hz
Telephone line: analogue as per CTR 21
European approval:
CTR21
BAPT 23 ZV5
73/23/EWG
89/336/EWG
Ambient operating temperature: -5°C to +45°C
Dimensions: DIN rail enclosure 8 modules wide

Wiring diagram: p. 45
Nikobus user manual: www.niko.be

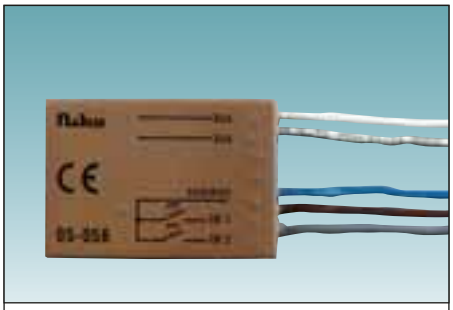


RECEIVER FOR TELEPHONE INTERFACE for the recording of messages 05-194

Pack: 1

The recording of individual texts in combination with telephone interface 05-191 requires an appropriate receiver – to be ordered separately – which plugs into the 4-pin RJ connector on the front panel.

Nikobus user manual: www.niko.be

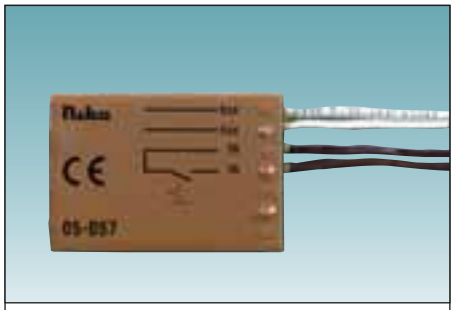


INTERFACE FOR PUSH-BUTTONS 05-056 connection of 2 standard push-buttons

Pack: 1

This interface converts external push-button contacts into a Nikobus telegram. As long as the contact is closed, the telegram is transmitted on the bus (max. 8s.). Two inputs are provided for external push-buttons and one output for connection to the Nikobus. The power supply of the flush type interface for push-buttons is supplied by the Nikobus.

Contacts: 2 push-buttons
Wiring diagram: p. 41
Nikobus user manual: www.niko.be

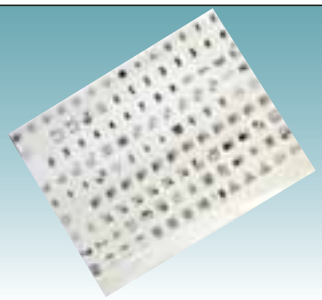


INTERFACE FOR SWITCH 05-057 connection of 1 standard switch contact

Pack: 1

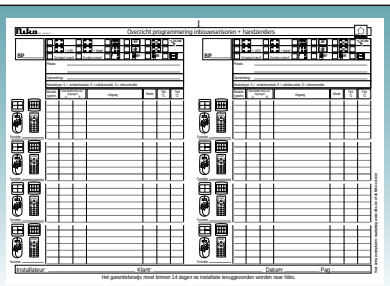
This interface converts an external switch contact with low control frequency into two Nikobus telegrams. When the contact closes a telegram is transmitted. When the contact opens another telegram
is transmitted. Any programming whatsoever can be assigned during closing and opening. One input is provided for an external switch contact and one input for connection to the Nikobus. The power supply of the flush type interface for switch is supplied by the Nikobus.

Contacts: 1 switch contact
Ambient operating temperature: 0°C to 50°C
Rest period: min. 200ms between opening and closing.
Wiring diagram: p. 41
Nikobus user manual: www.niko.be



STICKERS WITH NIKOBUS FUNCTIONS — PM-123-99

Sheets of stickers with function symbols that can be stuck on switched socket outlets and push-button rockers or in rockers with name plate.



NIKOBUS-PROGRAMMING BLOCNOTE — PM009-011

A handy programming overview for the installation of a Nikobus system, it allows you to note down the complete programming in a simple and clearly structured manner. If your customer later wants to modify a specific setting, you can then find all the relevant information on this overview.

DEMO PANEL NIKOBUS OVERVIEW — PT-004-99

A demonstration panel (85 x 85cm) for your discovery of the Nikobus functional benefits. Equipped with a switching and shutter unit in a distribution board with associated wireless transmitter and Nikobus push-button controls.

DEMO PANEL NIKOBUS — PT-007-99

An explanatory panel (85 x 85cm) that employs a number of diagrams to demonstrate all the Nikobus facilities.

DEMO PANEL NIKOBUS — PT-008-99

This working panel (85 x 85cm) features a ground plan of a standard building to demonstrate all the facilities of Nikobus.

DEMO KIT NIKOBUS 2.0 — PV-001-00

This kit (56 x 36 x 14cm) contains a switching and shutter unit, RF products, push-buttons and rockers. Via the scenario panel you can see the effect of the programmed actions.

DEMO KIT PC LINK & NIKOBUS — PV-009-00

This kit (61 x 46 x 19cm) contains a switching and shutter unit, dimcontroller, RF products, PC-Link module, PC-Logic module and push-buttons. Via the scenario panel you can see the effect of the programmed actions. Programming is possible via PC or manually. 1 scenario with light scene was pre-programmed.
Please contact Niko for more information on the availability of this product.

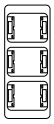
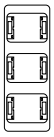
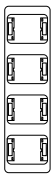
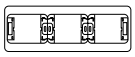
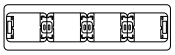
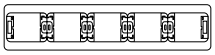
RF KIT — PV-010-00

This kit (46 x 36 x 17cm) contains the entire RF product line. It allows you to demonstrate several functionalities, including dimming of fluorescence lighting in 1/10V, switching and dimming of low voltage halogen lamps and ventilator control.
Please contact Niko for more information on the availability of this product.

Flush surround plates

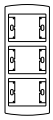
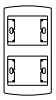
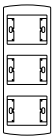
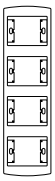
PR20

PR20 soft

	Centre distance 60mm vertical			Centre distance 71mm vertical				Centre distance 71mm horizontal			
											
	8 x 8cm	8 x 14cm	8 x 20cm	8 x 15cm	8 x 22cm	8 x 29cm	8 x 36cm	15 x 8cm	22 x 8cm	29 x 8cm	36 x 8cm
	Cream RAL~1013										
	12-761	12-762	12-763	12-765	12-766	12-764-30	12-760-35	12-768	12-767	12-764	12-760-05
	Pack:										
	50	25	20	25	20	5	5	25	20	5	5
	White RAL~9010										
	32-761	32-762	32-763	32-765	32-766	32-764-30	32-760-35	32-768	32-767	32-764	32-760-05
	Pack:										
	50	25	20	25	20	5	5	25	20	5	5
	Black RAL 7021										
	02-761	02-762	02-763	02-765	02-766	02-764-30	02-760-35	02-768	02-767	02-764	02-760-05
	Pack:										
	1/6	1/5	1/5	1/5	1/5	1	1	1/5	1/5	1	1
	Platin RAL 806005										
	71-011	71-012	71-013	71-022	71-023	71-024		71-032	71-033	71-034	
	Pack:										
	1/6	1/5	1/5	1/5	1/5	1		1/5	1/5	1	
	Safir RAL 2702010										
	72-011	72-012	72-013	72-022	72-023	72-024		72-032	72-033	72-034	
	Pack:										
	1/6	1/5	1/5	1/5	1/5	1		1/5	1/5	1	
	Amazon RAL 1803005										
	73-011	73-012	73-013	73-022	73-023	73-024		73-032	73-033	73-034	
	Pack:										
	1/6	1/5	1/5	1/5	1/5	1		1/5	1/5	1	
	Bordeaux RAL 0102015										
	74-011	74-012	74-013	74-022	74-023	74-024		74-032	74-033	74-034	
	Pack:										
	1/6	1/5	1/5	1/5	1/5	1		1/5	1/5	1	
	Sahara RAL 0858030										
	75-011	75-012	75-013	75-022	75-023	75-024		75-032	75-033	75-034	
	Pack:										
	1/6	1/5	1/5	1/5	1/5	1		1/5	1/5	1	
	Terracotta RAL 505050										
	76-011	76-012	76-013	76-022	76-023	76-024		76-032	76-033	76-034	
	Pack:										
	1/6	1/5	1/5	1/5	1/5	1		1/5	1/5	1	
	Azur RAL 2708015										
	77-011	77-012	77-013	77-022	77-023	77-024		77-032	77-033	77-034	
	Pack:										
	1/6	1/5	1/5	1/5	1/5	1		1/5	1/5	1	
	Pistache RAL 1108020										
	78-011	78-012	78-013	78-022	78-023	78-024		78-032	78-033	78-034	
	Pack:										
	1/6	1/5	1/5	1/5	1/5	1		1/5	1/5	1	

Flush surround plates

da Vinci

	Centre distance 60mm vertical			Centre distance 71mm vertical			Centre distance 71mm horizontal			
										
	8 x 8cm	8 x 14cm	8 x 20cm	8 x 15cm	8 x 22cm	8 x 29cm	15 x 8cm	22 x 8cm	29 x 8cm	36 x 8cm
	Titanium									
	44-411	44-412	44-413	44-422	44-423	44-424	44-432	44-433	44-434	44-435
	Pack:									
	1/6	1/5	1/5	1/5	1/5	1	1/5	1/5	1	1
	Graphite									
	45-411	45-412	45-413	45-422	45-423	45-424	45-432	45-433	45-434	45-435
	Pack:									
	1/6	1/5	1/5	1/5	1/5	1	1/5	1/5	1	1
	Bronze									
	46-411	46-412	46-413	46-422	46-423	46-424	46-432	46-433	46-434	46-435
	Pack:									
	1/6	1/5	1/5	1/5	1/5	1	1/5	1/5	1	1
	Sterling									
	47-411	47-412	47-413	47-422	47-423	47-424	47-432	47-433	47-434	47-435
	Pack:									
	1/6	1/5	1/5	1/5	1/5	1	1/5	1/5	1	1
	Cobalt									
	48-411	48-412	48-413	48-422	48-423	48-424	48-432	48-433	48-434	48-435
	Pack:									
	1/6	1/5	1/5	1/5	1/5	1	1/5	1/5	1	1
	Sepia									
	49-411	49-412	49-413	49-422	49-423	49-424	49-432	49-433	49-434	49-435
	Pack:									
	1/6	1/5	1/5	1/5	1/5	1	1/5	1/5	1	1

The vertical 5-fold cover plate is no longer part of the product line.

Flush surround plates

Cirio

	Centre distance 60mm vertical			Centre distance 71mm vertical			Centre distance 71mm horizontal		
	8,5 x 8cm	8,5 x 14cm	8,5 x 20cm	8,5 x 15cm	8,5 x 22cm	8,5 x 29cm	15,6 x 8cm	22,7 x 8cm	29,8 x 8cm
Opal white	51-011	51-012	51-013	51-022	51-023	51-024	51-032	51-033	51-034
Pack:	1/6	1/5	1/5	1/5	1/5	1	1/5	1/5	1
Satinised nickel	52-011	52-012	52-013	52-022	52-023	52-024	52-032	52-033	52-034
Pack:	1/6	1/5	1/5	1/5	1/5	1	1/5	1/5	1
Satinised chromium	53-011	53-012	53-013	53-022	53-023	53-024	53-032	53-033	53-034
Pack:	1/6	1/5	1/5	1/5	1/5	1	1/5	1/5	1
High polished steel	54-011	54-012	54-013	54-022	54-023	54-024	54-032	54-033	54-034
Pack:	1/6	1/5	1/5	1/5	1/5	1	1/5	1/5	1
Brass brushed	55-011	55-012	55-013	55-022	55-023	55-024	55-032	55-033	55-034
Pack:	1/6	1/5	1/5	1/5	1/5	1	1/5	1/5	1
Gold	56-011	56-012	56-013	56-022	56-023	56-024	56-032	56-033	56-034
Pack:	1/6	1/5	1/5	1/5	1/5	1	1/5	1/5	1

AXEN'D

	10 x 8cm*	10 x 15cm*	10 x 21cm*	10 x 16cm*	10 x 23cm*	17 x 8cm*	25 x 8cm*	32 x 8cm*
Sterling	81-011	81-012	81-013	81-022	81-023	81-032	81-033	81-034
Pack:	1/6	1/5	1/5	1/5	1/5	1/5	1/5	1
Pearled	82-011	82-012	82-013	82-022	82-023	82-032	82-033	82-034
Pack:	1/6	1/5	1/5	1/5	1/5	1/5	1/5	1
Brushed	83-011	83-012	83-013	83-022	83-023	83-032	83-033	83-034
Pack:	1/6	1/5	1/5	1/5	1/5	1/5	1/5	1

*Surface mounting height cover plate max. 8mm
The complete product Axend includes an Axend cover plate and decorative back plate.

BUTTONS FOR PUSH-BUTTONS

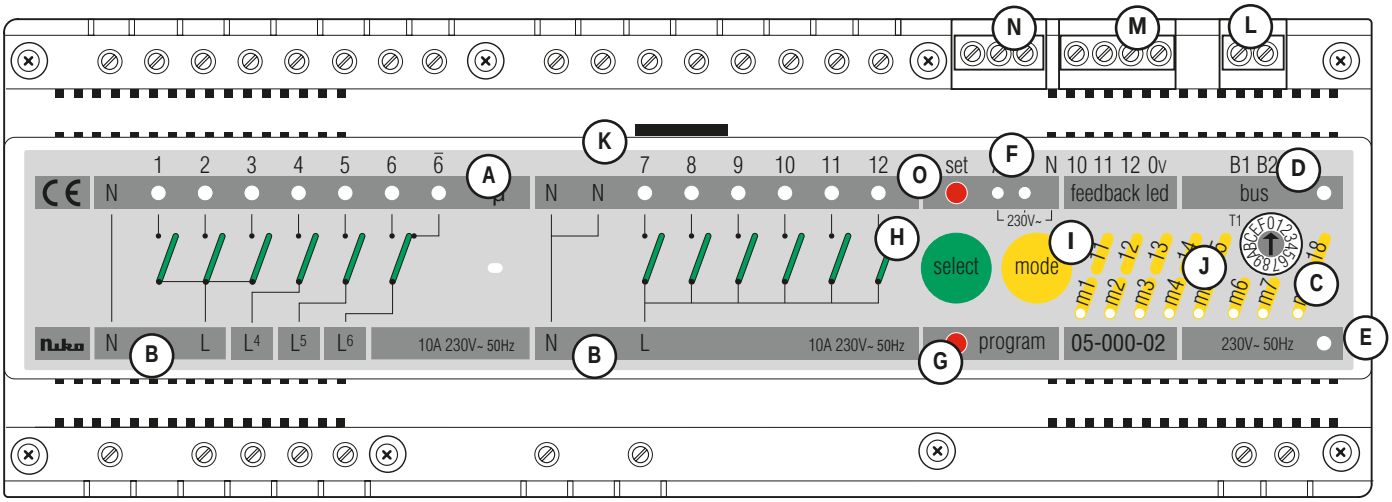
use	red	cream	white	black	titanium	graphite	bronze	sterling	cobalt	sepia
2-button 05-060	82-060-01	12-060-01	32-060-01	02-060-01	44-060-01	45-060-01	46-060-01	47-060-01	48-060-01	49-060-01
2-button 05-061 + LED	82-061-01	12-061-01	32-061-01	02-061-01	44-061-01	45-061-01	46-061-01	47-061-01	48-061-01	49-061-01
2-button 05-081 with IR-receiver		12-081-01	32-081-01	02-081-01	44-081-01	45-081-01	46-081-01	47-081-01	48-081-01	49-081-01
4-button 05-064		12-060-02	32-060-02	02-060-02	44-060-02	45-060-02	46-060-02	47-060-02	48-060-02	49-060-02
		12-060-03	32-060-03	02-060-03	44-060-03	45-060-03	46-060-03	47-060-03	48-060-03	49-060-03
4-button 05-085 with IR-receiver		12-080-04	32-080-04	02-080-04	44-080-04	45-080-04	46-080-04	47-080-04	48-080-04	49-080-04
push-button double with IR-receiver 05-091, 05-092, 05-093, 05-094, 05-095		12-080-04	32-080-04	02-080-04	44-080-04	45-080-04	46-080-04	47-080-04	48-080-04	49-080-04

CENTRAL PLATES FOR PUSH-BUTTONS

2 control buttons XX-072					44-082	45-082	46-082	47-082	48-082	49-082
4 control buttons XX-074					44-084	45-084	46-084	47-084	48-084	49-084
8 control buttons XX-078					44-088	45-088	46-088	47-088	48-088	49-088

Wiring diagrams Nikobus

Switching unit 05-000-02



LED-indications: **(A)** 13 for 12 outputs (including 1 change-over contact)
(B) 2 for the power supply of the outputs
(C) 8 for mode indication
(D) 1 for Nikobus supply
(E) 1 for active power supply of the switching unit
(F) 2 for external 230V logic inputs
(G) Programming button: to be triggered by screwdriver
(H) Output selection key: to select outputs 1 to 12
(I) Mode selection key: to select modes 1 to 15
(J) Timeswitch: to set time
(K) Non-volatible EEPROM-memory
(L) Bus connection
(M) Status LED-connection
(N) External 230V inputs with logic functions
(O) SET-selection key: to select external inputs A and/or B
Audio signal: short signals: program mode
long signal: sensor recognition
double short signal: erase

MODE

	Function	Description	Necessary keys on the BUS-push-buttons
If the "mode"-button is pressed less than 1,6 sec. during programming, modes m1 to m8 are recalled. The "mode"-LED's light continuously..			
m1:	on/off	top: on, bottom: off	2
m2:	on (if necessary with operating time)	always on (centralized functions	1
m3:	off (if necessary with operating time)	always off (centralized functions)	1
m4:	pushbutton	on for as long as the rocker is pressed (e.g. bell pushbutton, dimming connection) max. 8 sec.	1
m5:	toggle (flip-flop)	ON and OFF with the same rocker side	1
m6:	delayed off (longer times, till 2h.)	press: after timedelay: OFF (e.g. stair timer)	1
m7:	delayed on (longer times, till 2h.)	press: after timedelay: ON (e.g. operating delay)	1
m8:	blinking/flashing	press: ON/OFF/ON/…, (turn off with M3)	1
If the "mode"-button is pressed longer than 1,6 sec. during programming, modes m11 to m15 are recalled. The "mode"-LED's are flahing.			
m11:	delayed off (shorter times, till 50 sec.)	as m6, but shorter times	1
m12:	delayed on (shorter times, till 50 sec.)	as m7, but shorter times	1
m13:	sequencer on/off	switching of several outputs in sequences via a time cycle. The final switching order is determined during programming.	2
m14:	light scene on	press short: recalling a certain light scene press long: stores the modified light scene in the memory (> 3 sec)	1
m15:	light scene on/off	press short top rocker: recalls a certain light scene press long top rocker: stores the modified light scene in the memory (> 3 sec) bottom button -> off	2

For the time being no function has been assigned to m16, 17, 18.

TIME SELECTION

Time selection modes m6, m7 and m13:

0	=	10s.
1	=	1min.
2	=	2min.
3	=	3min.
4	=	4min.
5	=	5min.
6	=	6min.
7	=	7min.
8	=	8min.
9	=	9min.
A	=	15min.
B	=	30min.
C	=	45min.
D	=	60min.
E	=	90min.
F	=	120min.

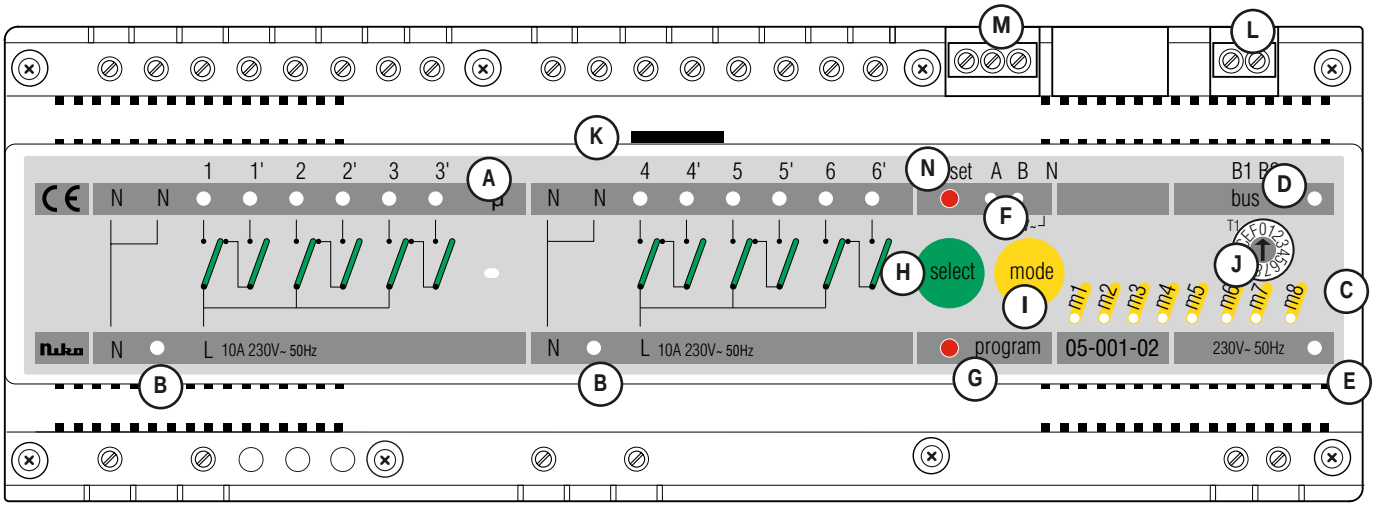
Time selection modes m11 and m12 (short times):

0	=	0,5s.
1	=	1s.
2	=	2s.
3	=	3s.
4	=	4s.
5	=	5s.
6	=	6s.
7	=	7s.
8	=	8s.
9	=	9s.
A	=	15s.
B	=	20s.
C	=	25s.
D	=	30s.
E	=	40s.
F	=	50s.

Operating time selection modes m2 and m3:

0	=	0s.
1	=	1s.
2	=	2s.
3	=	3s.
4,...,F	=	0s.

05-001-02 Shutter unit



LED-indications: **(A)** 6 x 2 for outputs
(B) 2 for power supply outputs
(C) 8 for modes
(D) 1 for Nikobus
(E) 1 for active supply of the shutter unit
(F) 2 for external 230V inputs

(G) A "programming" key: to be triggered by screwdriver
(H) An "output"-selectionbutton: to choose outputs 1 to 6
(I) A "mode"-selectionbutton: to choose modes 1 to 7
(J) Codewheelswitch: to set timedelay
(K) Non-volatible EEPROM-memory
(L) Bus connection
(M) External 230V inputs connector
(N) SET- key: to select one of the external inputs and logical functions
Audio signal: short signals: program mode
long signals: sensor recognition
double short signal: erase

MODE

	Function	Description	Necessary keys on the BUS-push-buttons
m1:	opening	upper side rocker + T2	2
	stop	upper or lower side of the rocker + T2	
	closing	lower side of the rocker + T2	
m2:	opening	always opening + T2	1
m3:	closing	always closing + T2	1
m4:	stop	always stop	1
m5:	RF-controlled	left upperside: opening + T2 left lower side: closing right upper side: stop right lower side:stop	4
m6:	opening with operating time	always opening + T2 + T3	1
m7:	closing with operating time	always closing + T2 + T3	1

m8 has no function and can not be selected

TIME SELECTION

- The timeout-function can be assigned to all modes. By setting the time, the run-time of the shuttermotor can be adjusted. 16 settings ranging from 0 to 90 s., with our without manual operating time adjustment are selectable.
- Reversing timedelay fixed to: T1 = 0,5 sec. Purpose: electrical and mechanical protection against sudden motor reversings.
- Programmable timeout functions after starting: T2
- Programmable manual operating time: T3

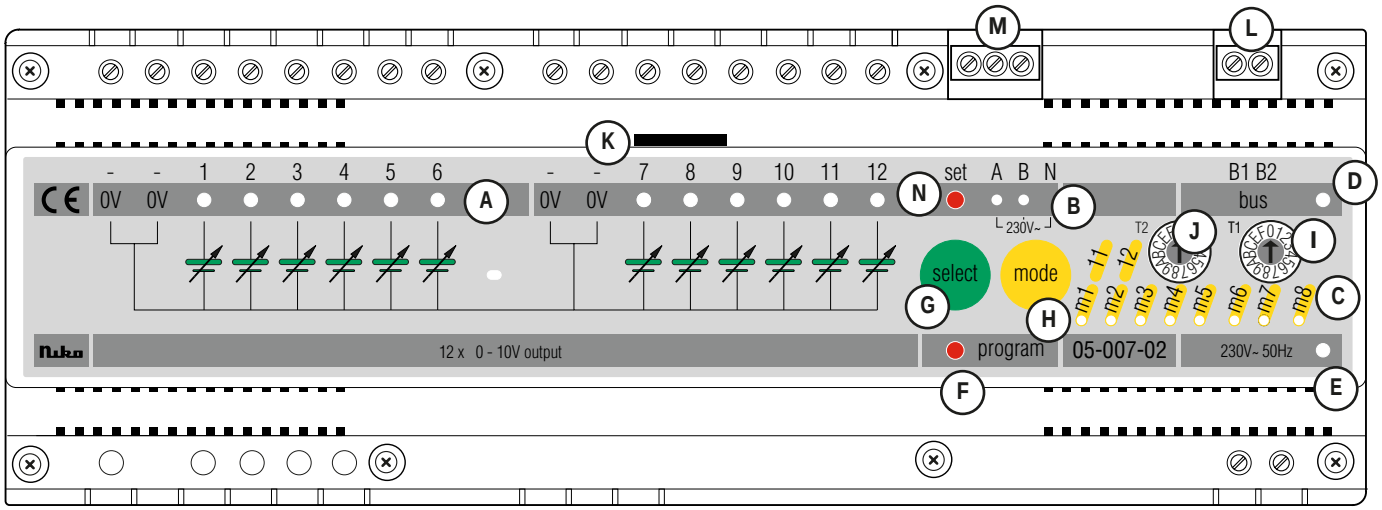
Time adjustment for modes m1 to m5 (motor timeout-function T2)

0	=	switched off
1	=	0,4s. (pulse control)
2	=	6s.
3	=	8s.
4	=	10s.
5	=	12s.
6	=	14s.
7	=	16s.
8	=	18s.
9	=	20s.
A	=	25s.
B	=	30s.
C	=	40s.
D	=	50s.
E	=	60s.
F	=	90s.

Time adjustment for modes m6 to m7 (combination of manual operating time and motor timeout-function)

Rotary switch	timeout-function setting(T2)	manual operating time (T3)
0	-	1s.
1	-	1s.
2	-	2s.
3	-	3s.
4	8s.	1s.
5	8s.	2s.
6	8s.	3s.
7	16s.	1s.
8	16s.	2s.
9	16s.	3s.
A	30s.	1s.
B	30s.	2s.
C	30s.	3s.
D	90s.	1s.
E	90s.	2s.
F	90s.	3s.

05-007-02 Dimcontroller



LED-indications: **(A)** 12 for outputs
(B) 2 for logic inputs
(C) 8 for modes
(D) 1 for Nikobus
(E) 1 for power supply of the dim controller
(F) Programming key: set by using a screwdriver
(G) Output selection key: to choose 1 of the 12 outputs
(H) Mode selection key: to choose 1 of the 8 modes
(I) (J) Time switches T1 & T2: to set the time
(K) Non volatile EEPROM memory
(L) Bus connection
(M) External 230V inputs
(N) SET selection key: to choose 1 of the 2 external inputs
Audio signal: short signals: program mode
long signal: contact address recognition
double short signal: erase

MODE

	Function	Description	Number of control buttons
m1:	dim on/off	upper short: dim on to last value	2
		upper long: dim-up to maximum value	
		lower short: dim off	
		lower long: dim-down to minimum value	
m2:	dim on/off	upper left: dim on to last value	4
		lower left: dim off	
		upper right, short: dim on to last value	
		upper right, long: dim-up to maximum value	
		lower right, short: dim off	
		lower right, long: dim-down to minimum value	
m3:	setting on/off	upper left short: call setting	4
		lower left long: write setting	
		lower left: dim off	
		upper right: dim on to last value if not off	
		lower right: dim-down to minimum value of not off	

	Function	Description	Number of control buttons
m4:	setting on	short: call setting, long: write setting	1
m5:	on	dim on to last value, with variable speed	1
m6:	off	dim off, with variable speed	1
m7:	delayed off	dim on to last value	1
		dim-down to minimum value after certain time	
m8:	flash	on/off/on, ... with dimming speed 0	1
		switch off with m6	

Modes m11 and m12 are called up by pressing the "mode" key for longer than 1,6sec. during programming. The LEDs are flashing.

m11:	preset on/off	upper left: call up preset	4
		lower left: dim off	
		upper right: dim on to last value if not off	
		lower right: dim-down to minimum value if not off	
m12:	preset on	call up preset	1

DEFINITIONS

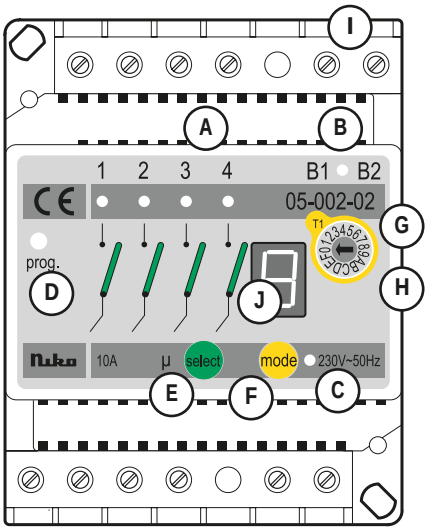
Dmax: the maximum voltage at which no further visual change occurs.
the maximum output voltage for a manual on-dim function.
Dmin: the minimum regulating voltage for a manual off-dim function.
Dstart: the start / stop voltage when dimming on or off
the voltage at which the lamp begins to glow.

Example:
These parameters can be set individually for each output:
Dstart: between 0-2V in 16 steps (default value = 1,6V)
Dmin: between 1-4V in 16 steps (default value = 1,6V)
Dmax: between 6-10V in 16 steps (default value = 10V)

DIMMING SPEED

Dimming speed: rotary switch T1	'dimming time' OFF -> Max.: (default values)	Dimming speed: rotary switch T1	'dimming time' OFF -> Max.: (default values)
0	1s.	8	30s.
1	2s.	9	40s.
2	4s.	A	50s.
3	6s.	B	1min.
4	8s.	C	2min.
5	10s.	D	3min.
6	15s.	E	4min.
7	20s.	F	5min.

05-002-02 Compact switching unit



LED-indications: **(A)** 4 for outputs
(B) 1 for Nikobus
(C) 1 for power supply of the dim controller

(D) Programming key: set by using a screwdriver

(E) Output selection key: to choose 1 of the 4 outputs

(F) Mode selection key: to choose 1 of the 14 modes

(G) (H) Time switches T1 & T2: to set the time

(I) Bus connection

(J) Display: display of set mode

Audio signal: short signals: program mode
long signal: recognising sensor
double short signal: delete

MODE

Function	Description	Necessary keys on the contol buttons
If the "mode"-button is pressed less than 1,6s. during programming, modes m1 to m8 are recalled. The programming modes flash on the 7 segment display.		
m1: on/off	top: ON, bottom: OFF	2
m2: on (if necessary with operating time)	always ON (centralized functions)	1
m3: off (if necessary with operating time)	always OFF (centralized functions)	1
m4: push-button	ON for as long as the rocker is pressed (e.g. bell push-button, dimming connection) max. 8s.	1
m5: toggle (flip-flop)	ON and OFF with the same rocker side	1
m6: delayed OFF (longer times, till 2h.)	press: after time delay: OFF (e.g. stair timer)	1
m7: delayed ON (longer times, till 2h.)	press: after time delay: ON (e.g. operating delay)	1
m8: blinking/flashing	press: ON/OFF/ON/…, (turn off with M3)	1
If the "mode"-button is pressed longer than 1,6s. during programming, modes m11 to m15 are recalled. The programming modes flash on the 7 segment display.		
m11: delayed off (shorter times, till 50s.)	as m6, but shorter times	1
m12: delayed on (shorter times, till 50s.)	as m7, but shorter times	1
m13: sequencer on/off	switching of several outputs in sequences via a time cycle	2
m14: light scene on	The final switching order is determined during programming press short: recalling a certain light scene press long: stores the modified light scene in the memory (> 3s.)	1
m15: light scene on/off	press short top rocker: recalls a certain light scene press long top rocker: stores the modified light scene in the memory (> 3s.) bottom button -> off bottom button —> off	2

For the time being no function has been assigned to M16, 17, 18.

TIME SELECTION

Time selection modes m6, m7 and m13:

0	=	10s.
1	=	1min.
2	=	2min.
3	=	3min.
4	=	4min.
5	=	5min.
6	=	6min.
7	=	7min.
8	=	8min.
9	=	9min.
A	=	15min.
B	=	30min.
C	=	45min.
D	=	60min.
E	=	90min.
F	=	120min.

Time selection modes m11 and m12 (short times):

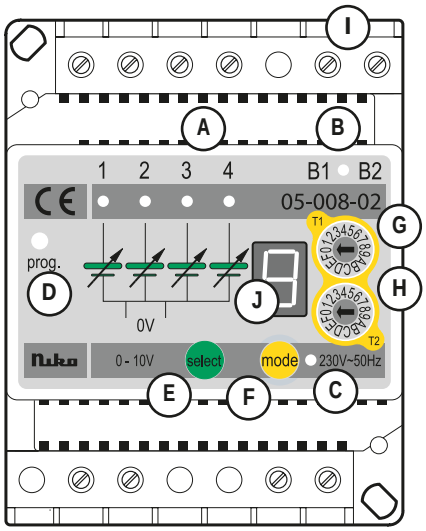
0	=	0,5s.
1	=	1s.
2	=	2s.
3	=	3s.
4	=	4s.
5	=	5s.
6	=	6s.
7	=	7s.
8	=	8s.
9	=	9s.
A	=	15s.
B	=	20s.
C	=	25s.
D	=	30s.
E	=	40s.
F	=	50s.

Operating time selection modes m2 and m3:

0	=	0s.
1	=	1s.
2	=	2s.
3	=	3s.
4,...,F	=	0s.

Wiring diagrams Nikobus

05-008-02 Compact dimcontroller



LED-indications: **(A)** 4 for outputs
(B) 1 for Nikobus
(C) 1 for power supply of the dim controller

(D) Programming key: set by using a screwdriver

(E) Output selection key: to choose 1 of the 4 outputs

(F) Mode selection key: to choose 1 of the 14 modes

(G) (H) Time switches T1 & T2: to set the time

(I) Bus connection

(J) Display: display of set mode

Audio signal: short signals: program mode
long signal: recognising sensor
double short signal: delete

MODE

	Function	Description	Number of control buttons
m1:	dim on/off	upper short: dim on to last value upper long: dim up to maximum value lower short: dim off lower long: dim down to minimum value	2
m2:	dim on/off	upper left: dim on to last value lower left: dim off upper right, short: dim on to last value upper right, long: dim up to maximum value lower right, short: dim off lower right, long: dim down to minimum value	4
m3:	setting on/off	upper left short: call setting lower left long: write setting lower left: dim off upper right: dim up lower right: dim down	4
m4:	setting on	short: call setting, long: write setting	1
m5:	on	dim on to last value, with variable speed	1
m6:	off	dim off, with variable speed	1
m7:	delayed off	dim on to last value dim down to minimum value after certain time	1
m8:	flash	on/off/on, ... with dimming speed 0 switch off with m6	1

Modes m11, m12, m13 and m14 are called up by pressing the "mode" key for longer than 1.6s. during programming. The programming modes flash on the 7 segment display.

m11:	preset on/off	upper left: call up preset lower left: dim off upper right: dim up lower right: dim down	4
m12:	preset on	call up preset	1
m13:	dim on/off	1 button mode short: switching between off and max. value long: dim up/down	1
m14:	dim on/off	with memory short: switching between off and latest value long: dim up/down	1

DEFINITIONS

Dmax: the maximum voltage at which no further visual change occurs.
the maximum output voltage for a manual "on"-dim function.

Dmin: the minimum regulating voltage for a manual "off"-dim function.

Dstart: the start / stop voltage when dimming on or off
the voltage at which the lamp begins to glow.

Example:
These parameters can be set individually for each output:
Dstart: between 0-2V in 16 steps (default value = 1.6V)
Dmin: between 1-4V in 16 steps (default value = 1.6V)
Dmax: between 6-10V in 16 steps (default value = 10V)

DIMMING SPEED

Dimming speed: rotary switch T1	'dimming time' OFF -> Max.: (default values)	Dimming speed: rotary switch T1	'dimming time' OFF -> Max.: (default values)
0	1s.	8	30s.
1	2s.	9	40s.
2	4s.	A	50s.
3	6s.	B	1min.
4	8s.	C	2min.
5	10s.	D	3min.
6	15s.	E	4min.
7	20s.	F	5min.

Programming procedure

Programming

progr. < 1.6s ⇨ select ⇨ mode ⇨ ⇨ progr. < 1.6s

Erase the programming for

progr. < 1.6s ⇨ select ⇨ progr. >1.6s
a circuit

progr. < 1.6s ⇨ select ⇨ ⇨ progr. > 1.6s
a push-button

Erase all

mode + select + progr. > 1.6s

Operating outputs manually

select ⇨ LED 1…12 ⇨ select >1 s ⇨ 1…12 = ON ⇨ 2. select >1 s ⇨ 1…12 = OFF

Diagnostic functions

m1 Nikobus-telegram OK, flashing = wrong datatelegram
m2 bus short circuit, buspolarisation error
m3 bus supply circuit malfunctioning
m4 memory error

Diagnostic functions compact modules

- horizontal segment middle flashes: Nikobus-telegram
- A flashes: short circuit, polarisation error
- B flashes: bus power supply error
- C flashes: memory error

Programming external 230V inputs (not for compact modules)

1. “Switch-input function”

- press the ‘program’-button
- select the output(s), the corresponding modes and optional times
- select the input A or B with the ‘set’-button
- there are 3 possibilities:

LED A ON	LED B OFF	output reacts on changes of A
LED A OFF	LED B ON	output reacts on changes of B
LED A ON	LED B ON	output reacts on changes of A and B

- press the ‘set’-button longer (until a beep-tone will be heard)
- leave the “program”-mode

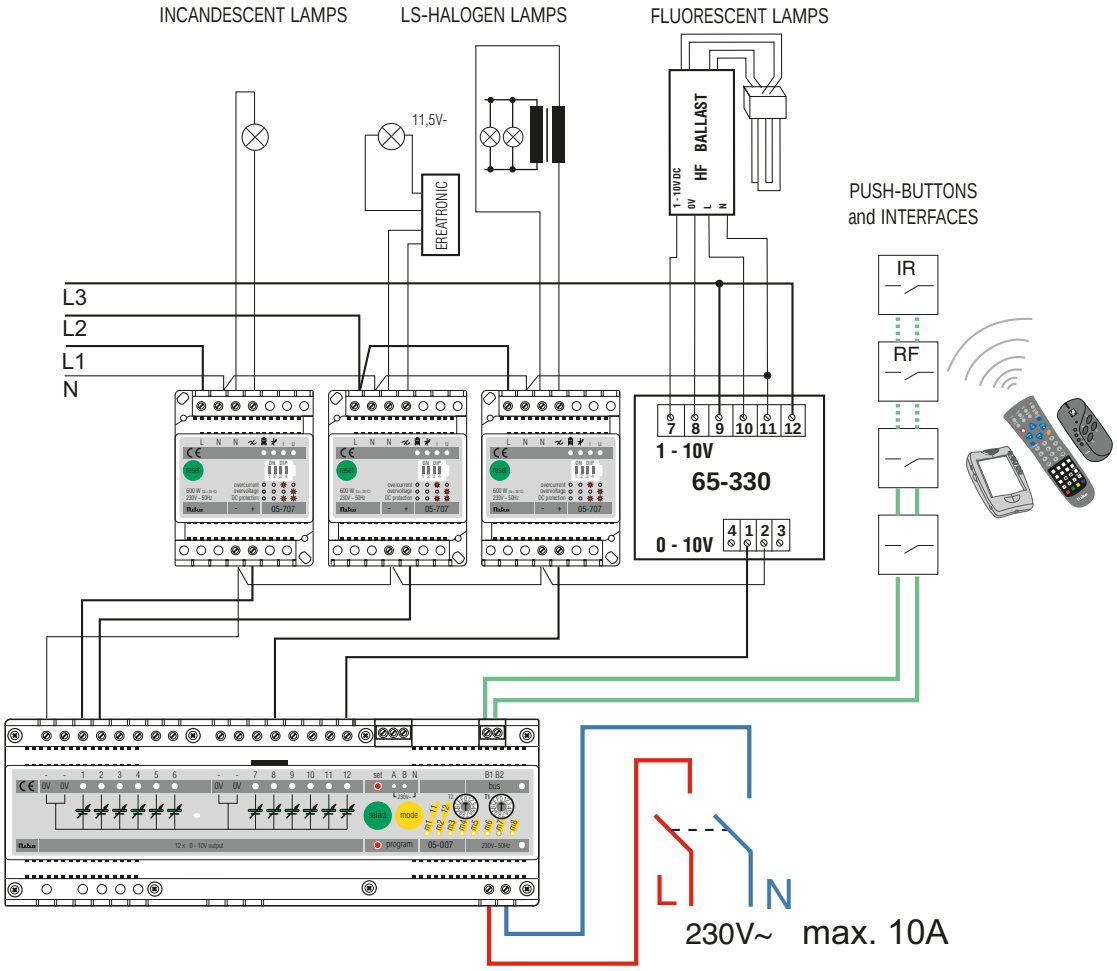
2. “Enable input function”

- press the ‘program’-button
- select the output(s) and the corresponding modes
- select the input A or B with the ‘set’-button as well as the logic function. There are 6 possibilities:

Status of the LED during programming LED A	LED B	push-button	action
OFF	OFF	on	push-button telegram will be passed through without influence of the external inputs
ON	OFF	on	push-button telegram will be passed through if A is on 230V
pinkt	OFF	on	push-button telegram will be passed through if A is on 0V
OFF	ON	on	push-button telegram will be passed through if B is on 230V
OFF	pinkt	on	push-button telegram will be passed through if B is on 0V
ON	ON	on	push-button telegram will be passed through if A and B are on 230V
pinkt	pinkt	on	push-button telegram will be passed through if A and B are on 0V

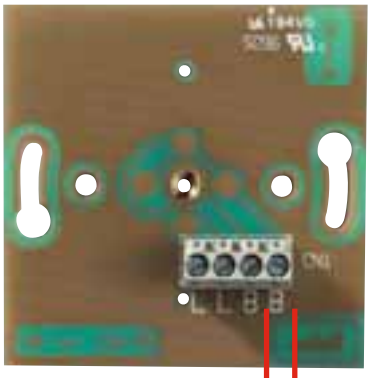
- press the push-button
- leave the “program”-mode

Example wiring diagram

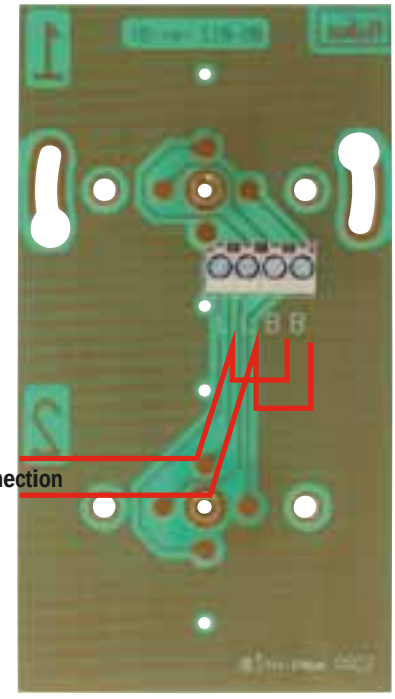


Connection standard push-buttons

Back of single circuit board
05-011



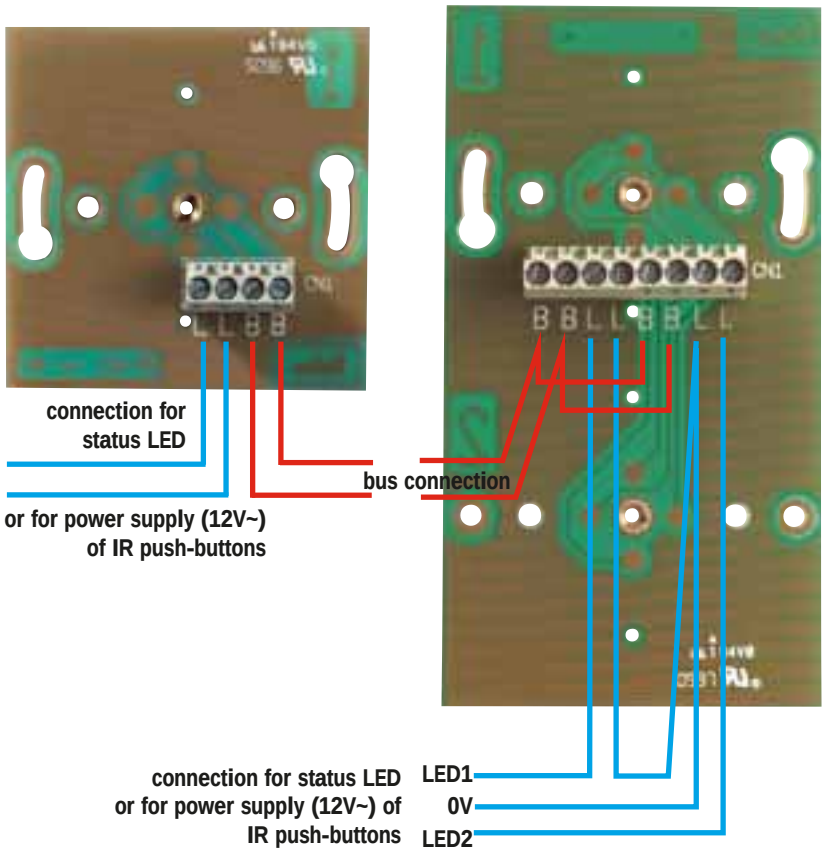
Back of double circuit board
05-012-50



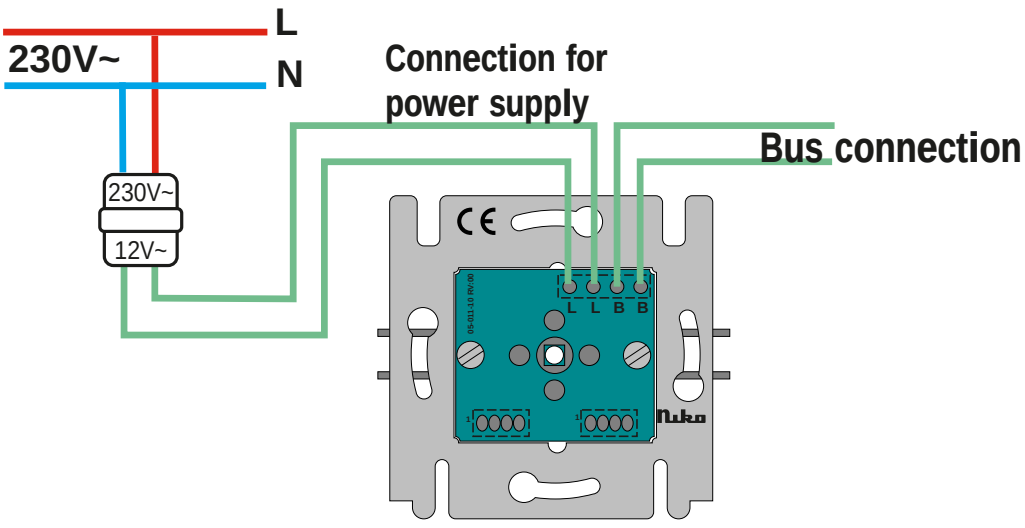
Connection push-buttons with LED

Back of single circuit board
05-011

Back of double circuit board
05-012-50

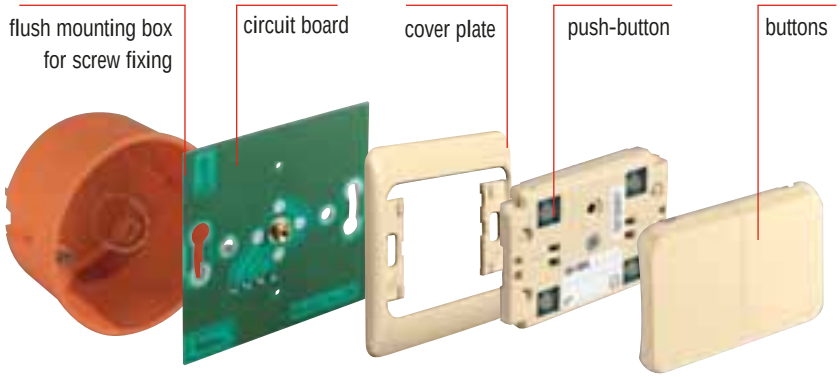


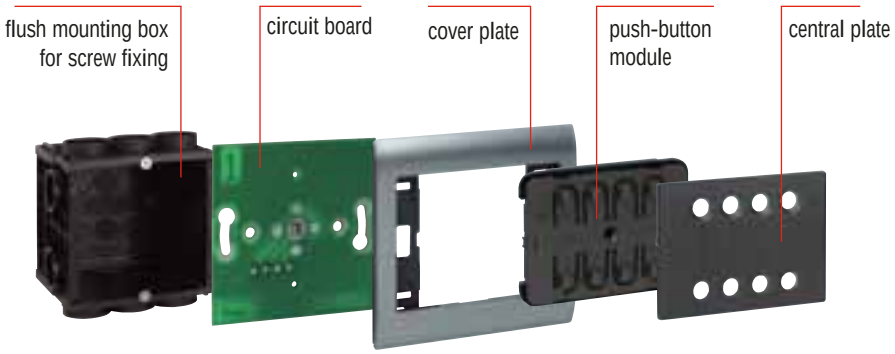
Connection IR push-buttons

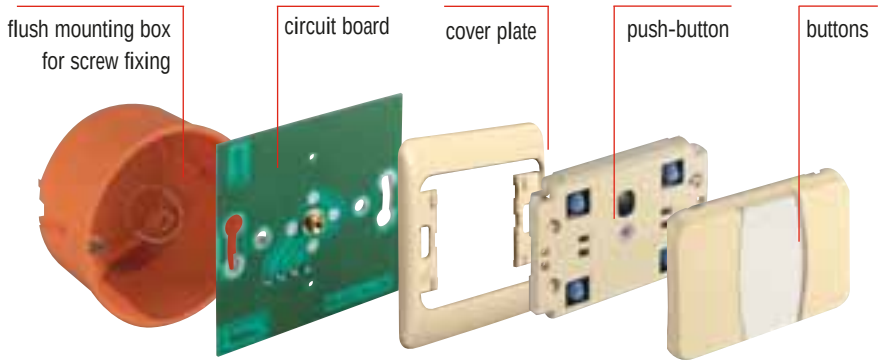


Circuit board (e.g.: 05-011-10)

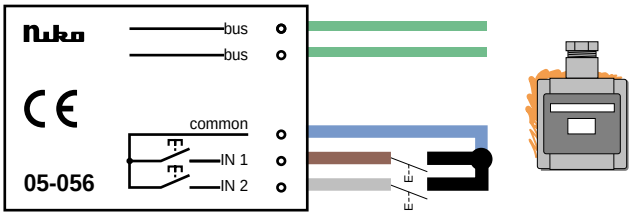
Mounting push-buttons



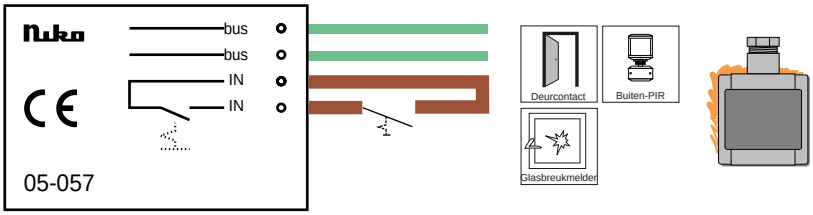




Connection interface for push-buttons 05-056

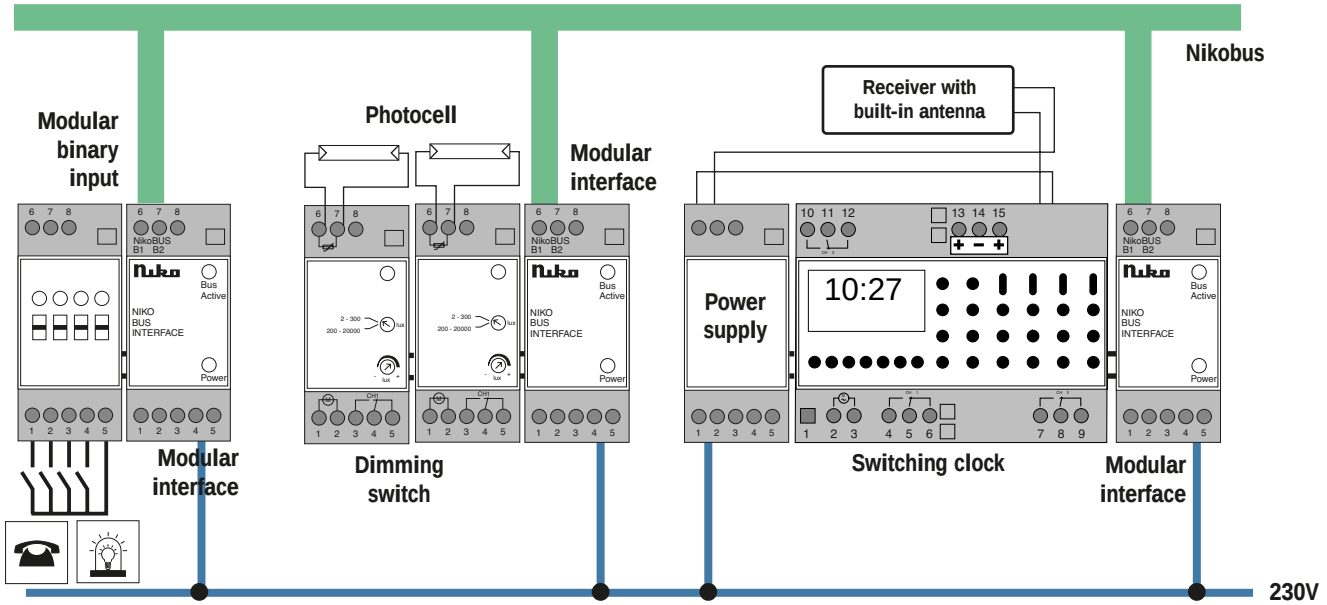


Connection interface for switch 05-057

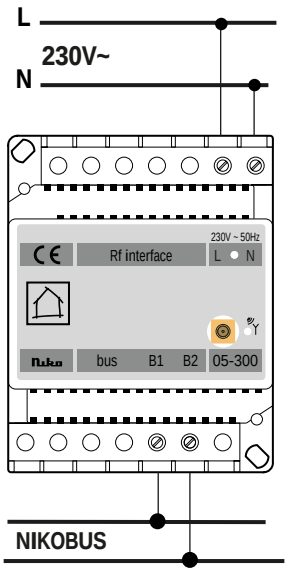


Wiring diagrams Nikobus

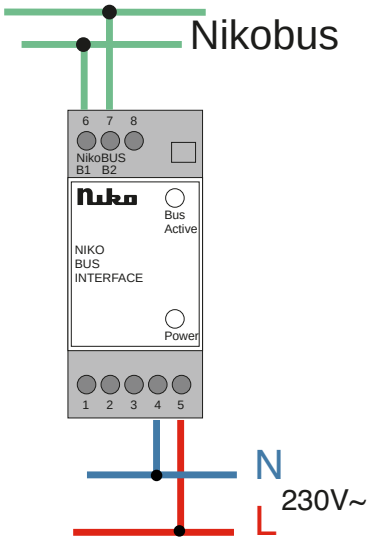
Connectable components



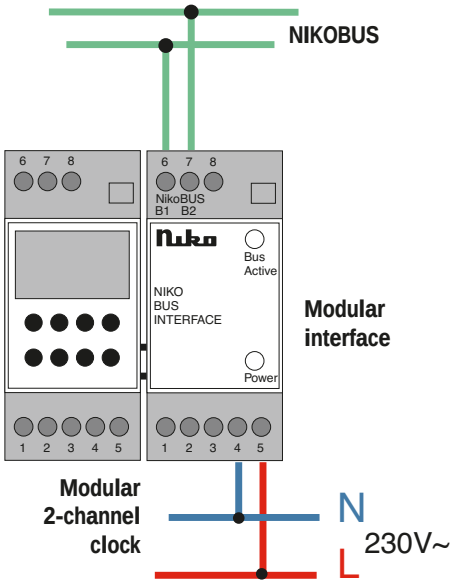
Connection modular RF interface 05-300



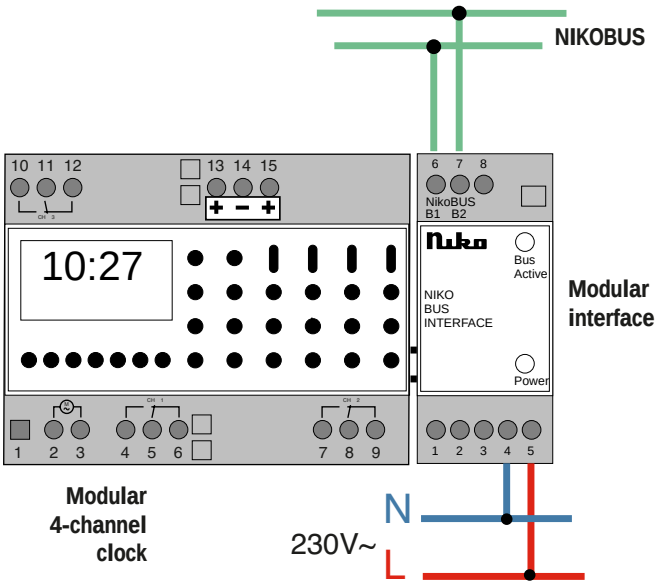
Connection modular interface 05-055



Connection modular 2-channel clock 05-182

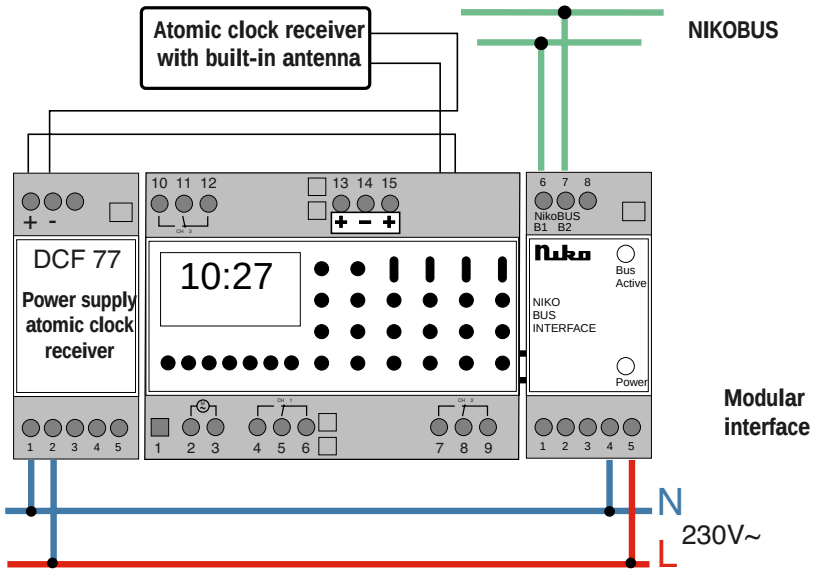


Connection modular 4-channel clock 05-184

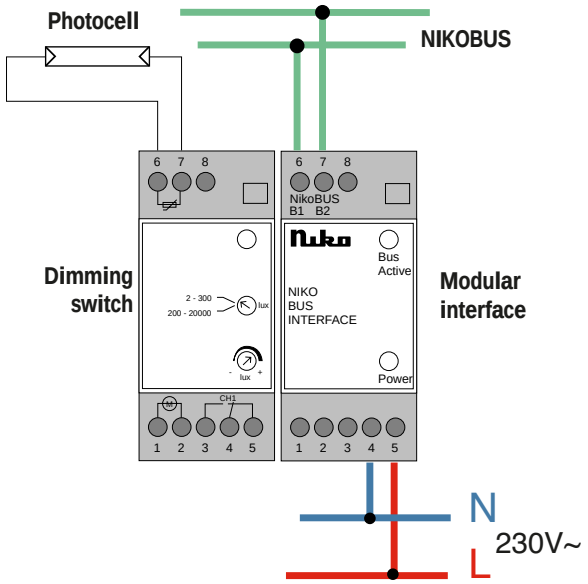


Wiring diagrams Nikobus

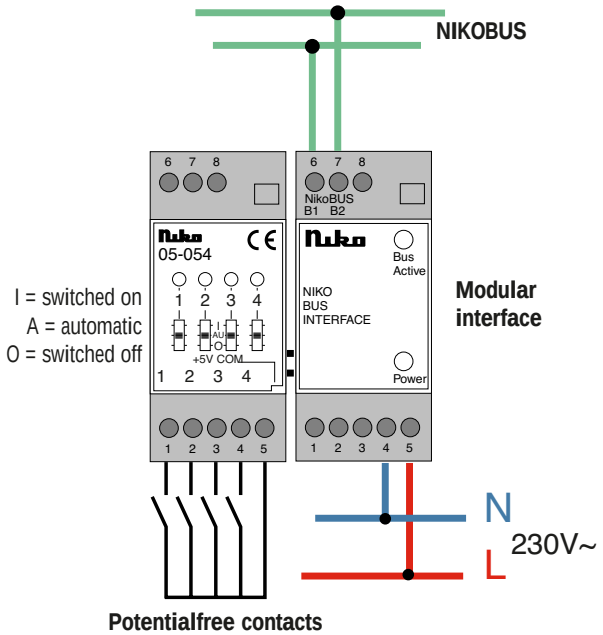
Connection atomic clock receiver with modular power supply 05-185



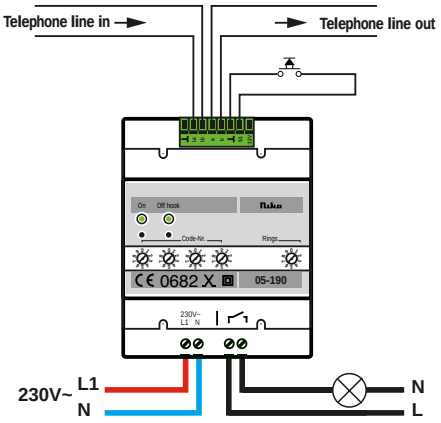
Connection modular light sensor 05-180

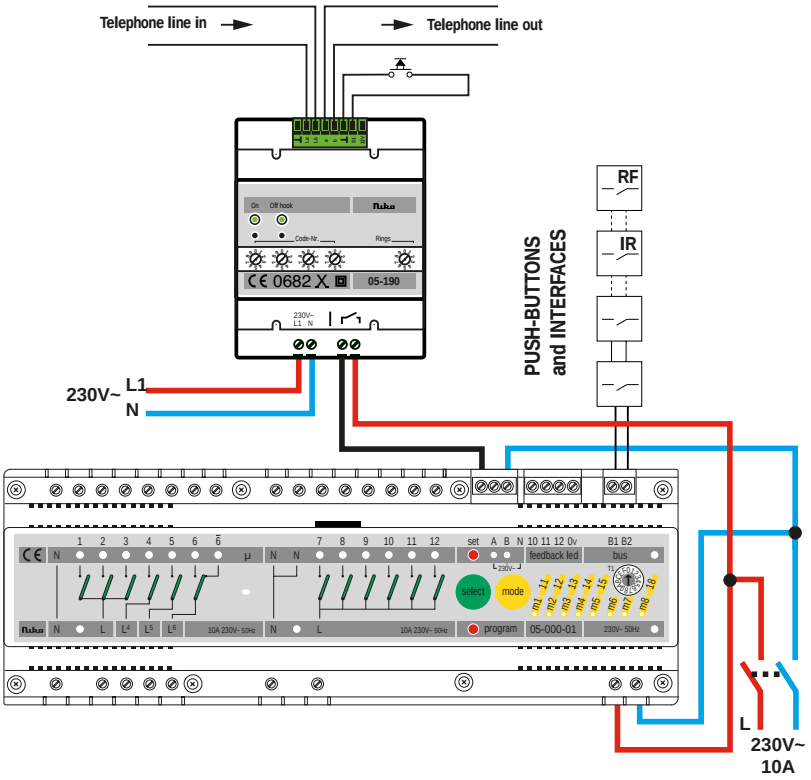


Connection modular binary input 05-054

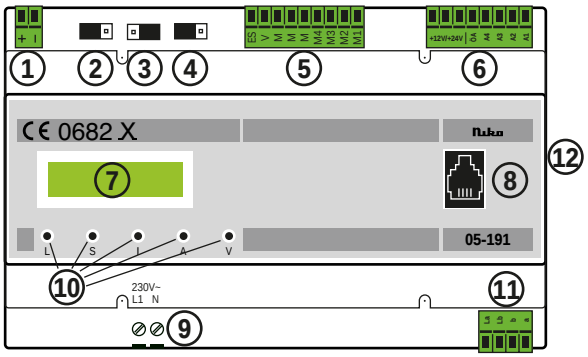


Connection telephone interface 1 channel 05-190





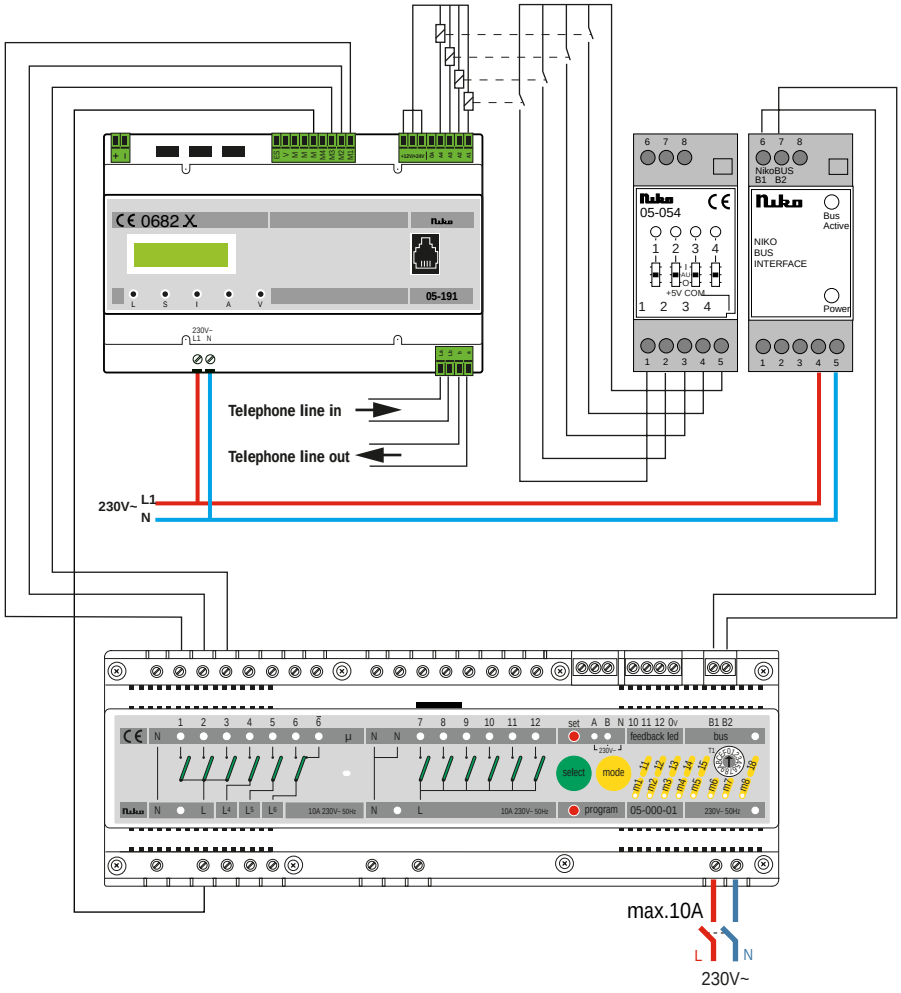
Connection telephone interface 4 channels 05-191= DUTCH; 05-191-20 = FRENCH; 05-191-30 = GERMAN; 05-191-40 = ENGLISH

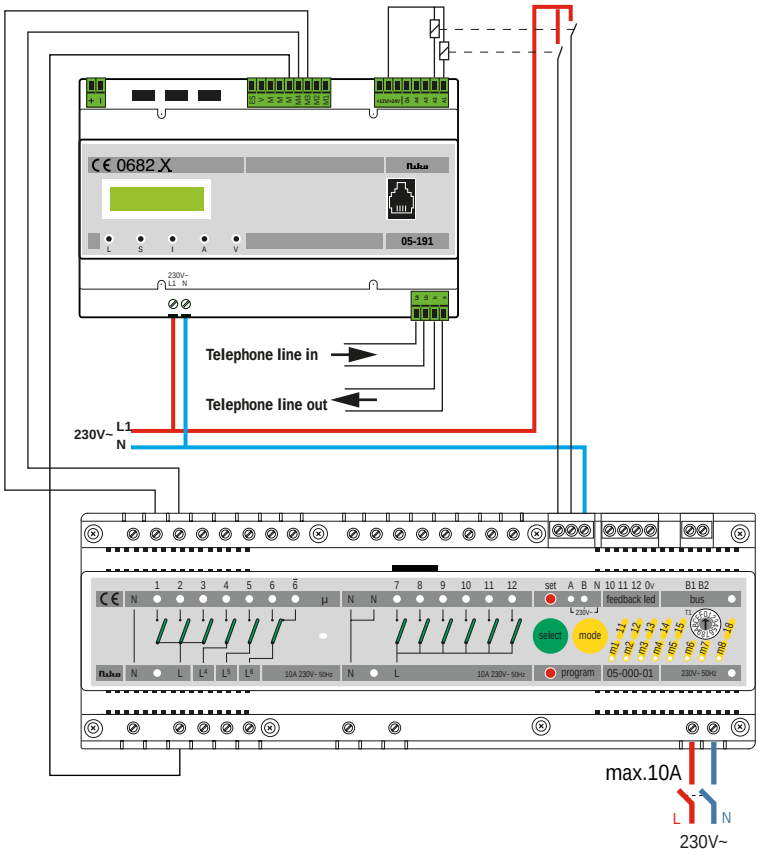


1. Connection for external DC supply (alternative for 9)
2. Selector plug for external supply
3. Not applicable (selector plug for Nikobus)
4. Selector plug for relay as pulse outputs
5. Plug-in screw clamp for 4 control inputs
6. Plug-in screw clamp for 4 switching outputs
7. LCD display 16 digits, 2 lines
8. Connection for handset (to record texts)
9. Connection for 230V supply (alternative for 1)
10. Programming of push-buttons
11. Telephone connection

For the control of the consumers, the Nikobus telecontrol is equipped with 4 open collector outputs that can be connected to the Nikobus via external relays. Where only 1 or 2 switching channels are needed, they can be connected directly to external outputs A and B of the switch or shutter module or the dimmer controller (see wiring diagram S205191).
If more switching channels (max. 4) are required, the binary input (05-054) must be used in combination with the modular interface (05-055) (see wiring diagram S105191).

Connection telephone interface 4-channels 05-191





Connection universal modular dimmer 05-707

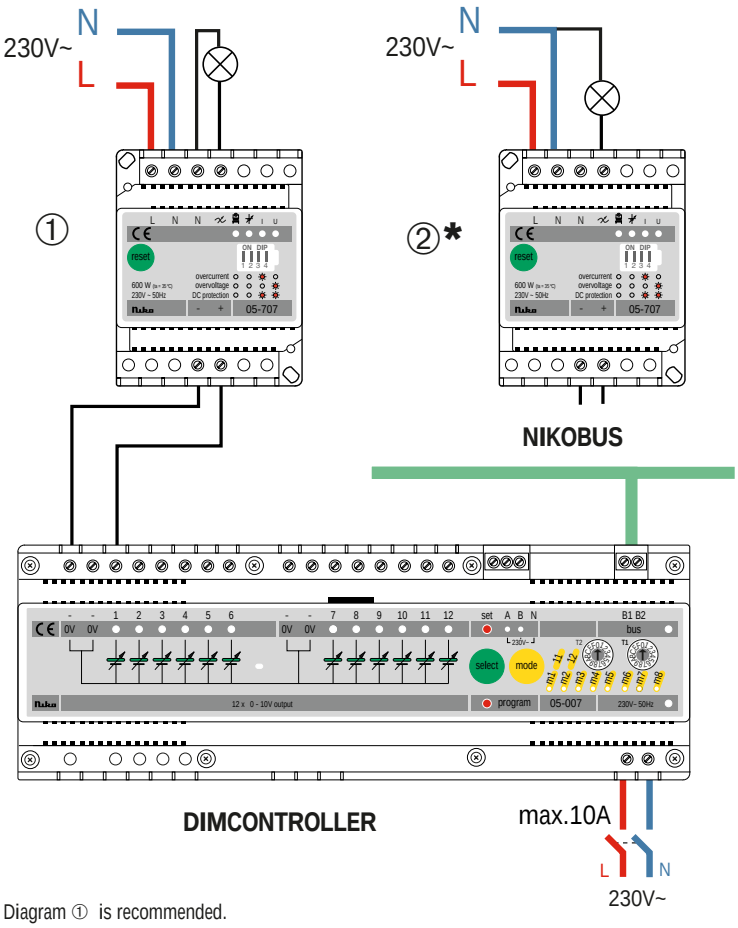
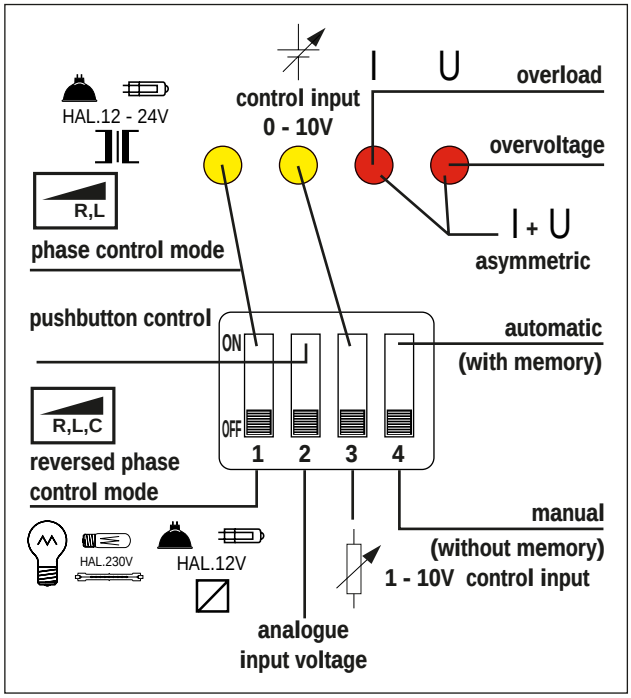
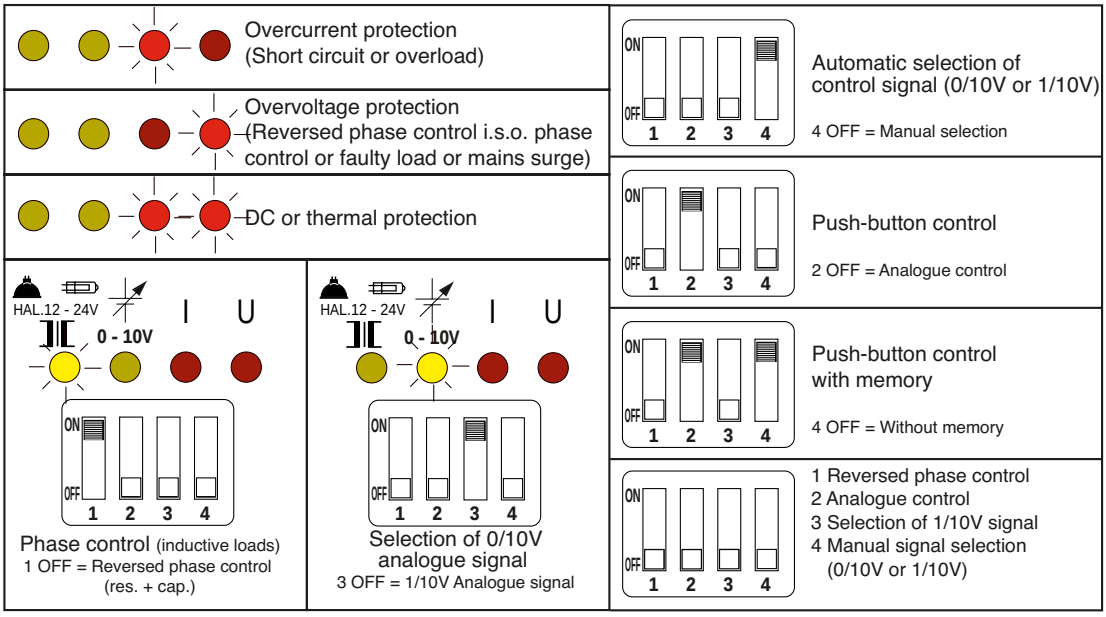


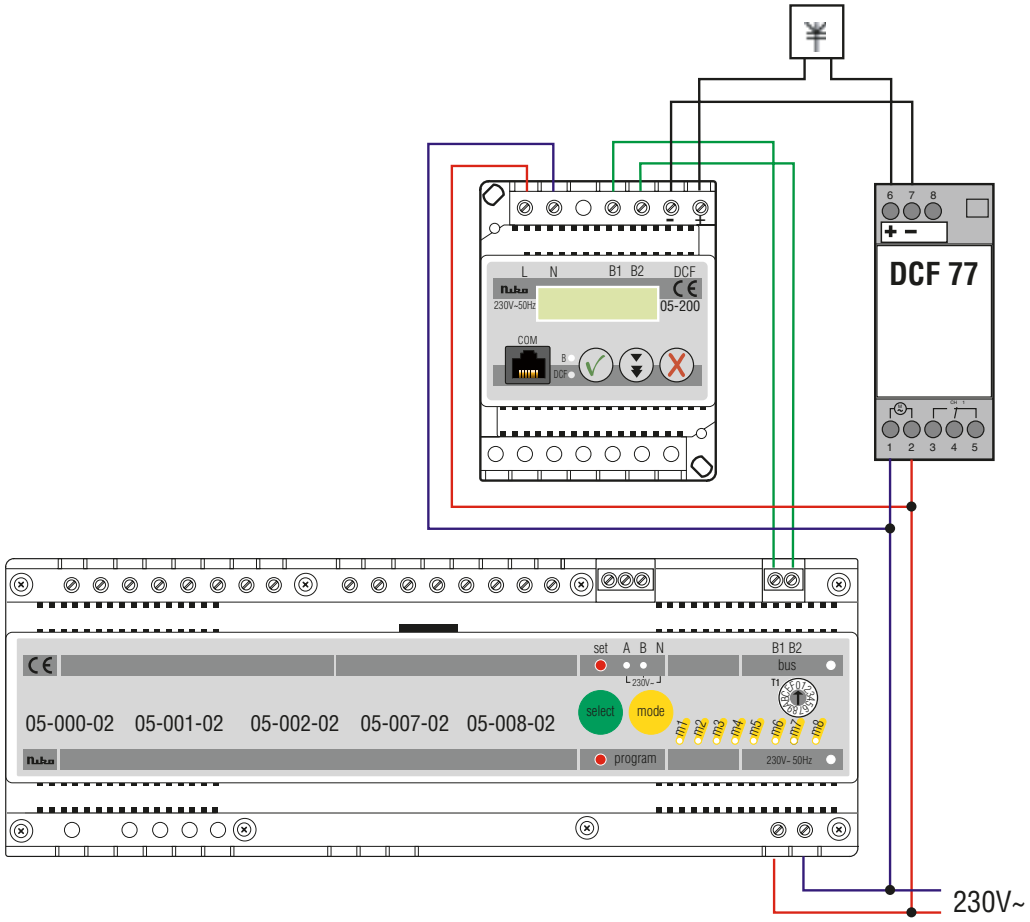
Diagram ① is recommended.
* Diagram ② use only if diagram ① is not feasible.
Use of diagram can cause instability when dimming with electronic transformers.



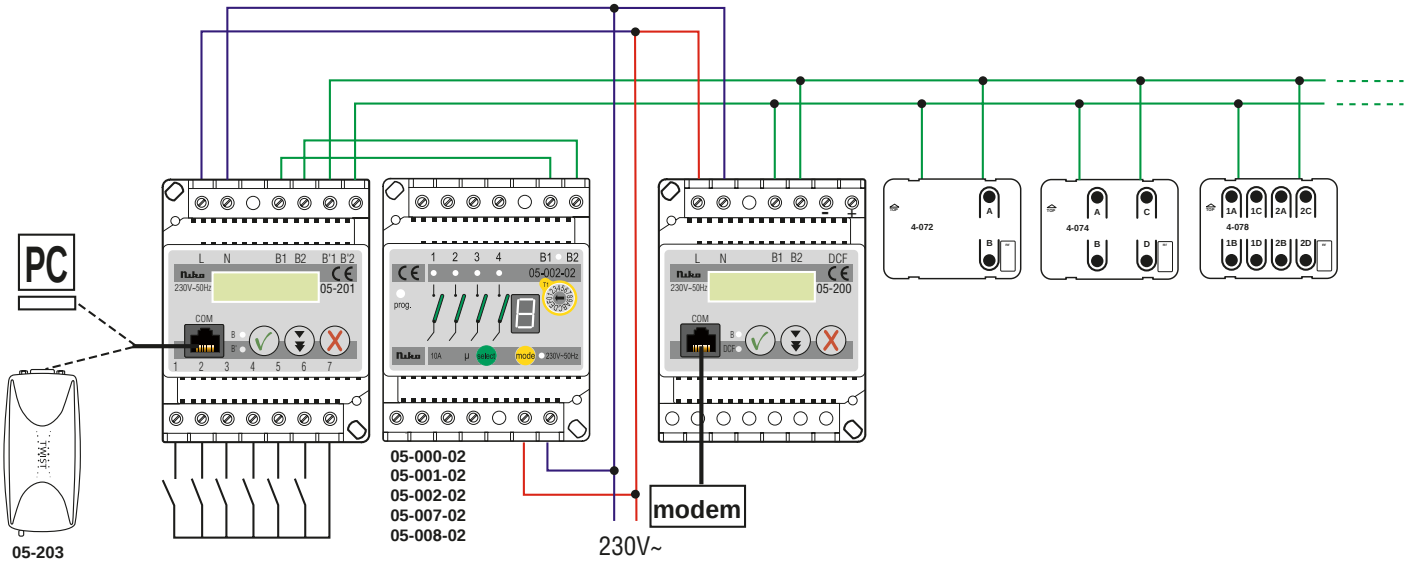
Setting DIP-switches of universal modular dimmer 05-707



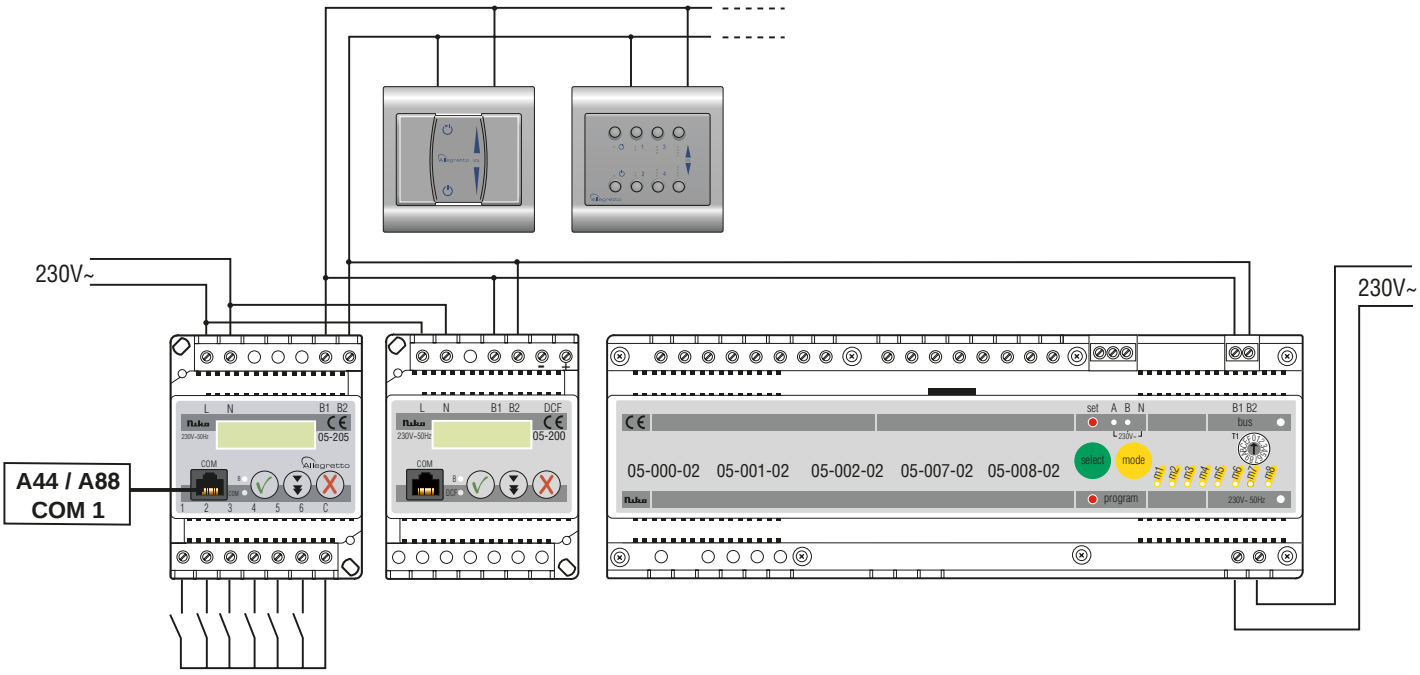
PC-Link 05-200



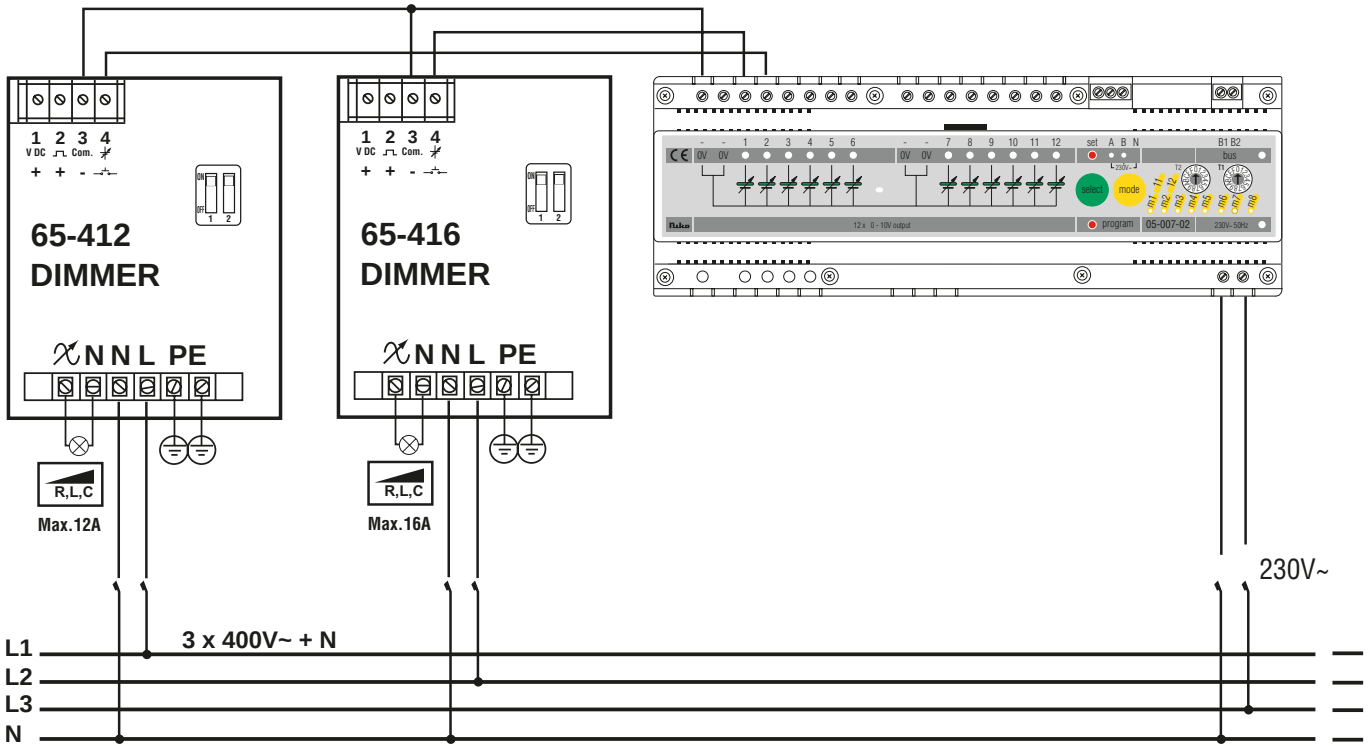
PC-Logic 05-201



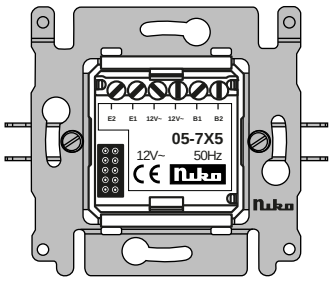
Audio-Link 05-205



Wiring diagram 65-412 + 65-416

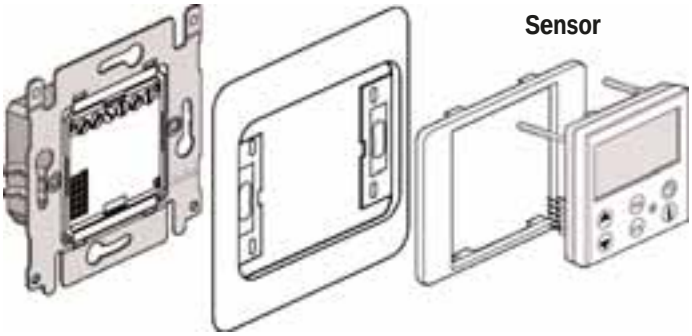


Mounting sensor

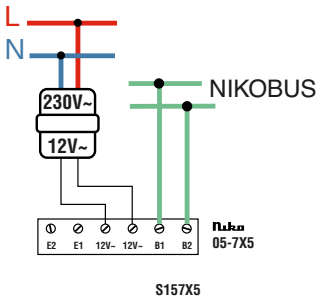


Actor

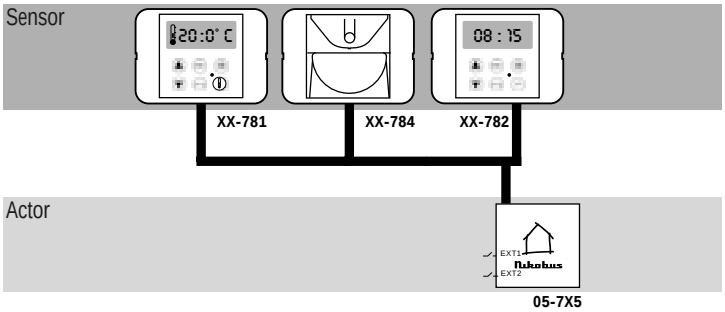
Sensor



Nikobus-actor 05-795



S157X5



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