# GSB3-40, GSB3-60, GSB3-80

**EN Glass wall touch controllers**

## Characteristics

- The wall controller with touch controls series GSB3 is a design element (controller) in the system iNELS with elegant and comfortable control. Controllers are available in black (e.g. GSB3-40/B) and white (e.g. GSB3-40/W) variants.
- Between each pair of touch buttons there is available a pair of indicator LEDs (green, red) to signal not only the status of the controlled appliances, but also the status of any sensor or actuator in the system.
- At the location of each touch button there is available a blue diode signaling the touching of the given button. Touching may be signaled by a vibration impulse or sound tone - selectable in the software iDM3.
- Controllers are 4-channels (GSB3-80), 6-channels (GSB3-60) and 8-channels (GSB3-80).
- All versions are in the same dimension as a basic modular wall-switch (94x94 mm), in design LOGUS$^{90}$.
- Each controller is equipped with a thermo sensor. It is equipped with two analog-digital inputs (AIN/DIN), and it is possible to connect two potentialless contact or an external temperature sensor TC/TZ (for example on floor temperature measurement).
- Controllers are equipped with an ambient light intensity sensor. From the basic information from the sensor, it is possible to illuminate orientation blue diodes in the touch controls GSB3 or perform various actions in the software iDM3, e.g. illuminate light circuits in a hallway, etc.
- Advantages over conventional switches / buttons include space saving, signaling of any output system, the ability to measure temperature and also the ability to connect external buttons or detectors.
- Each channel (button) can control any actuator (appliance) in the system. It is also possible to program various functions or fuction macro (set of functions) to each button. This allows you to control several appliances with one button simultaneously.
- Each button (channel) can have different functional modes beside lighting control:
  a) Classic wall-switch: - upper button ON, bottom button OFF
  b) Button controller (impulse relay): - first press ON, second press OFF
  c) Dimmer: - short press – ON/OFF
  d) Time switch: - ON after press, automatically OFF after set time
  e) Setting light scenes – for example: for watching TV:
     - shutters down
     - main light 30% intensity
     - wall-lamps 50% intensity.
- Design series LOGUS$^{90}$ off ers glass frames in black and white color. These frames goes perfectly with GSB3 wall buttons.

## General instrucions

CONNECTION TO THE SYSTEM, INSTALLATION BUS

iNELS3 peripheral units are connected to the system through the BUS installation. Installation BUS conductors are connected to the terminal units to BUS+ and BUS- terminals, wires cannot be interchanged. For installation of BUS it is necessary to use a cable with a twisted pair of wires with a diameter of at least 0.8 mm, the recommended cable is iNELS BUS Cable, whose features best meet the requirements of the BUS installation. Bearing in mind that in terms of all the properties iit is it is possible in most cases also use the cable JYSTY 1x2x0.8 or JYSTY 2x2x0.8, however it is not recommended as the best option. In the case of a cable with two pairs of twisted wires it is not possible to use the second pair of the other for modulated signal due to the speed of communications; it is not possible within one cable to use one pair for one segment BUS and the second pair for the second segment BUS. For installation of BUS it is vital to ensure that it is kept at a distance from the power lines of at least 30 cm and must be installed in accordance with its mechanical properties. To increase mechanical resistance of cables we recommend installation into a conduit of suitable diameter. Topology installation of BUS is free except for a circle, each end of the BUS must terminate at terminals BUS+ and BUS-. While maintaining all the above requirements, the maximum length of one segment of the installation BUS can reach up to 550 m. Due to the data communication and supply of units in one pair of wires, it is necessary to keep in mind the diameter of wires with regards to voltage loss on the lead and the maximum current drawn. The maximum length of the BUS applies provided that they comply with the tolerance of the supply voltage.

CAPACITY AND CENTRAL UNIT

It is possible to connect to the central unit CU3-01M or CU3-02M two independent BUSes by means of terminals BUS1+, BUS1- and BUS2+, BUS2-. It is possible to connect to each BUS up to 32 units, so it is possible to connect directly to the central unit a total of 64 units. It is necessary to comply with the requirement of a maximum load of one BUS line - maximum up to 1000 mA current. It is the sum of the rated currents of the units connected to the BUS line, other units can be connected using the units MI3-02M, which generate further BUSes. These are connected to the CU3 unit via the system BUS EBM and you can connect a total of 8 units via EBM BUS to the central unit MI3-02M.

SUPPLYING THE SYSTEM

For supplying power to system units, it is recommended to use the power source of ELKO EP titled PS3-100/iNELS. We recommend backing up the system with backup batteries connected to the source of PS3-100/iNELS (see sample diagram of connecting the control system).

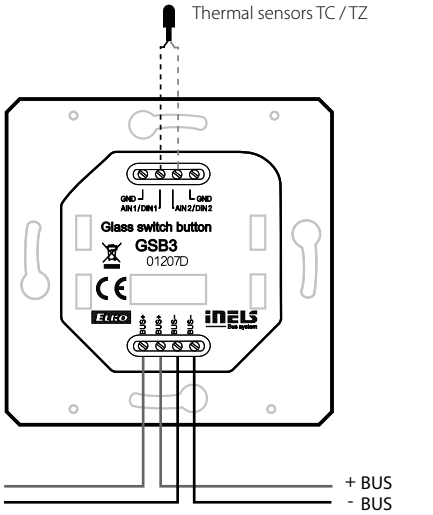
GENERAL INFORMATION

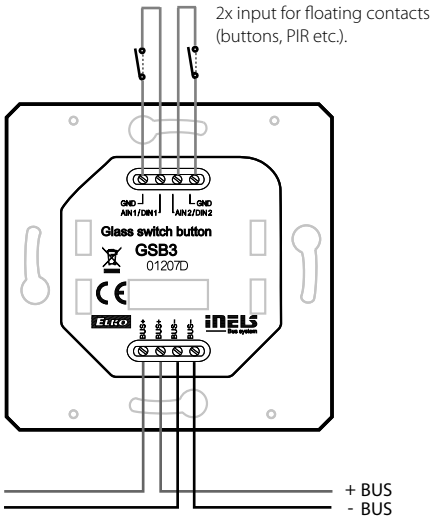
To operate the unit, it is necessary that the unit is connected to a central unit CU3 series, connected to the central unit of the system CU3, or to a system that already contains this unit as its expansion to include further system.

All unit parameters are set through the central unit CU3-01M in the software iDM3.

There is LED diode on the PCB for indication of supply voltage and communication with the central unit series CU3. In case that the RUN diode flashes at regular intervals, so there is standard communication between the unit and BUS. If the RUN diode lights permanently, so the unit is supplied from BUS, but there is no communication between BUS and unit. In case that RUN diode is OFF, so there is no supply voltage on the terminals BUS+ and BUS-.

## Connection



## Technical parameters

| | GSB3-40 | GSB3-60 | GSB3-80 |
|---|---|---|---|
| **Inputs** | | | |
| Temperature measuring: | YES, built-in thermo sensor | | |
| Scope and accuracy of temp. measuring: | 0.. +55 °C; 0.3 °C from the range | | |
| Number of control buttons: | 4 | 6 | 8 |
| Inputs: | 2x AIN/DIN | | |
| Resolution: | according to the settings, 10 bits | | |
| Ext. temperature sensor: | Yes, the connection between AIN1/DIN1 and AIN2/DIN2 | | |
| Type ext. sensor: | TC/TZ | | |
| Temperature measurement range: | -20 °C .. +120 °C | | |
| Temperature measurement accuracy: | 0.5°C from range | | |
| **Outputs** | | | |
| Indication: | pair of LEDs (red, green) | | |
| Number of LEDs: | 2 | 3 | 4 |
| **Communication** | | | |
| Installation BUS: | BUS | | |
| **Power supply** | | | |
| Supply voltage / tolerance: | 27 V DC, -20 / +10 % | | |
| Rated current: | 25 - 40 mA (at 27V DC), from BUS | | |
| **Connection** | | | |
| Terminals: | 0.5 - 1 $mm^2$ | | |
| **Operating conditions** | | | |
| Relative humidity: | max. 80 % | | |
| Operating temperature: | -20 .. +55 °C | | |
| Storing temperature: | -30 .. +70 °C | | |
| Protection degree: | IP 20 | | |
| Overvoltage category: | II. | | |
| Pollution degree: | 2 | | |
| Operation position: | any | | |
| Installation: | into installation box | | |
| **Dimensions and weight** | | | |
| Dimensions: | 94 x 94 x 36 mm | | |
| Weight: | 155 g | | |

## Warning

Before the device is installed and operated, read this instruction manual carefully and with full understanding and Installation Guide System iNELS3. The instruction manual is designated for mounting the device and for the user of such device. It has to be attached to electro-installation documentation. The instruction manual can be also found on a web site www.inels.com. Attention, danger of injury by electrical current! Mounting and connection can be done only by a professional with an adequate electrical qualification, and all has to be done while observing valid regulations. Do not touch parts of the device that are energized. Danger of life-threat! While mounting, servicing, executing any changes, and repairing it is essential to observe safety regulations, norms, directives and special regulations for working with electrical equipment. Before you start working with the device, it is essential to have all wires, connected parts, and terminals de-energized. This instruction manual contains only general directions which need to be applied in a particular installation. In the course of inspections and maintenance, always check (while de-energized) if terminals are tightened.