GLASS BUTTON
white   **GS4-DC-W**

Purpose

The GS4-DC glass button is designed for installation in a 60 mm diameter installation box and is dedicated for direct control of low power 9÷30 V DC lighting circuits. The external white spot backlight gently brightens when you move your hand closer to it in order to indicate the location of the touch sensors. Activation of the selected circuit is indicated by switching on a spot backlight in orange.

Features of the device

* four independent touch buttons;
* two operating modes, set independently for each button:
  - bistable mode - one press of a button activates the output circuit, the other press deactivates the output circuit;
  - monostable mode - the output circuit will be activated as long as the button is pressed;
  - voltage output - switching on the output circuit is done by applying positive voltage to the OUT output;

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- potential-free output - the output circuit is switched on by closing the OUT output to 0 V level (open collector-type output - OC);
- possibility to adjust the brightness of the backlight to individual preferences (separately for on and off state).

Description of the device
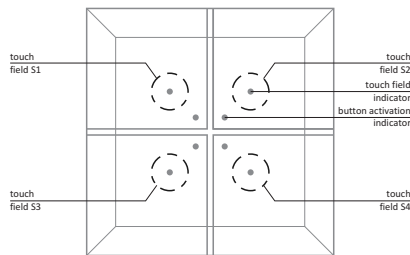
The front of the device is made of glass with external dimensions of 81×81×12 mm. On the front there are 4 touch fields (S1, S2, S3, S4), the central points of which are indicated by the touch field indicators glowing in warm white color when the hand is close to the button.
Additionally, on the front panel there are 4 orange button activation indicators indicating the activation of the receiver switched on by pressing the button.
On the inside there is a plastic frame connected to a 2M mounting frame.

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Configuration

Working mode
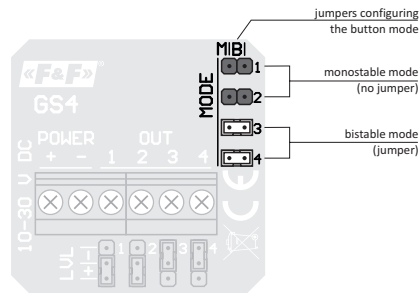
Configuration of the operating mode is done independently for each of the buttons using a group of jumpers marked as MODE.
Jumper No. 1 configures button S1, jumper No. 2 - button S2, etc.
The buttons can operate in two modes:
* monostable - where there is no jumper - in which the selected control output will be activated as long as the corresponding button is pressed;
* bistable - where the jumper is mounted on contacts - in which one press of the button activates the selected control output and another press switches it off.

⚠ The selection of the operating mode should be made before the power of the button is switched on.

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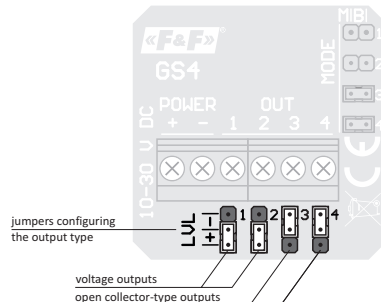
Control

The selection of control allows to determine the type of control signal appearing at the outputs OUT1- OUT 4.
The control configuration is done independently for each of the buttons using a 3-pin group marked as LVL. Jumper 1 sets the control output OUT 1 associated with the button S1, jumper 2 sets the control output OUT 2 associated with the button S2, etc.
Available settings:
* potential-free control - jumper in the upper position - the output circuit is switched on by closing the OUT output to the level of 0 V (open collector-type output - OC).
* voltage control - jumper in the lower position - the output circuit is switched on by applying positive voltage to the OUT output. The voltage value on the activated OUT output is close to the value of the button power supply voltage.

⚠ The configuration jumper must be in the lower or upper position. If there is no jumper, the output is blocked.

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Mounting

1. After removing from the package, gently disconnect the 2M mounting frame from the button.
2) Mount the mounting frame inside the installation box and lead out the supply and control wires outside the box.
3) Connect the power supply and the control to the button in accordance with the selected control system. Examples of connecting diagrams are presented in the further part of the manual.
4) Press the button gently into the mounting frame. The button handles should effectively snap into the mounting holes provided for them in the mounting frame.

(!) A practical example of how to install the GS4-DC button can be seen in the instructional video available at www.fif.com.pl on the product page.
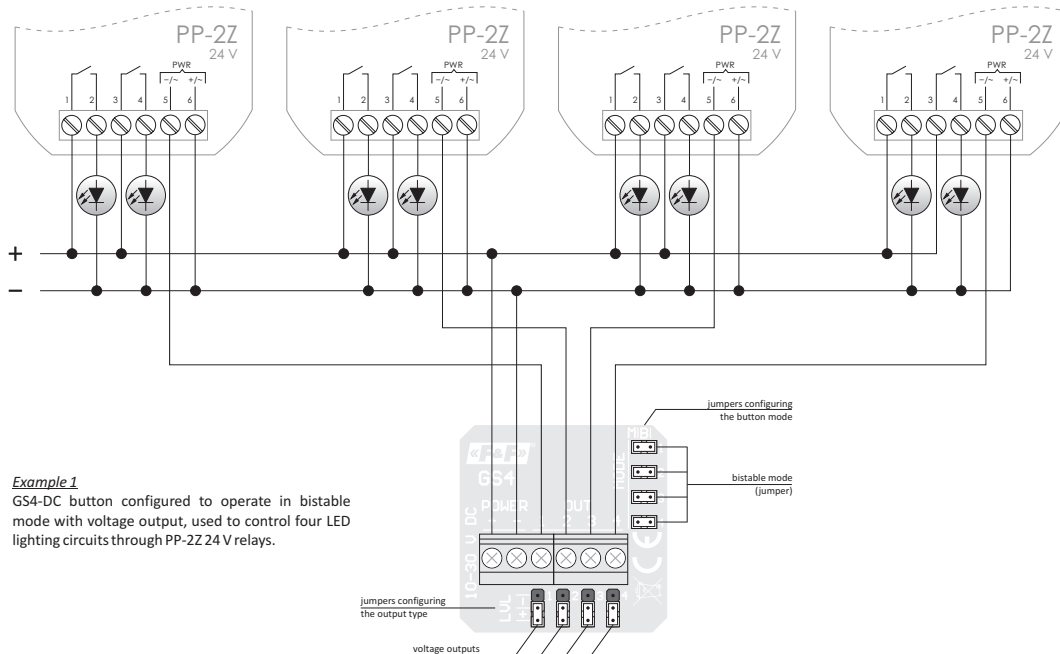
Connection

(!) The GS4-DC button is designed for low-voltage DC power supply and low-voltage home automation control. The power supply of the button with mains voltage or direct connection to high-voltage devices may damage the button and pose a risk to users.
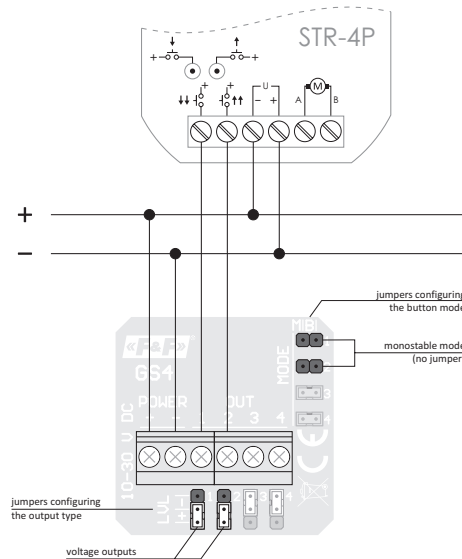
(!) OUT control outputs are dedicated for triggering low-current control circuits of home automation systems. They must not be used for direct control of power circuits (for example halogen lamps, LED lighting).
In this case, it is recommended to use auxiliary relays (for example PP-1P 24 V or PP-2Z 24 V - an example diagram below).

PP-2Z 24 V

PP-2Z 24 V

PP-2Z 24 V

PP-2Z 24 V

jumpers configuring the button mode

bistable mode (jumper)

Example 1
GS4-DC button configured to operate in bistable mode with voltage output, used to control four LED lighting circuits through PP-2Z 24 V relays.
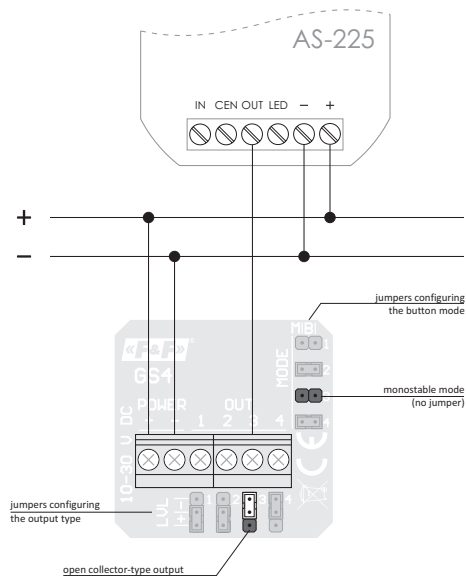
jumpers configuring the output type

voltage outputs

Example 2
GS4-DC button configured to operate in monostable mode with voltage output, used to control STR-4P roller blind controller.

STR-4P

jumpers configuring the button mode

monostable mode (no jumper)

jumpers configuring the output type

voltage outputs

Example 3
GS4-DC button configured to operate in monostable mode with potential-free output of open collector-type, used to trigger the AS-225 cascade stair controller.

jumpers configuring the button mode

monostable mode (no jumper)

jumpers configuring the output type

open collector-type output

Personalization of button operation
The GS4-DC glass buttons allow you to set the brightness level in the active state (brightness of touch field indicators when you move your hands close to it and brightness of output activation indicators) and in the inactive state (brightness of touch field indicators when you move your hand away). This function allows you to adjust the brightness to the ambient conditions, and to perform the functions of the backlit buttons. The brightness in the active state can be adjusted in the range of 50÷100% and in the range of 0÷30% in the inactive state.
In addition, it is possible to choose how the indicators will behave:
* the indicator will be on at all times when the output channel is on;
* the indicator will be on when the output channel is on and additionally when the hand is close to the button (when you move your hand away, the indicators go out even though the outputs remain on).
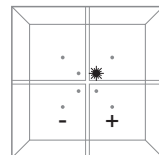To set the brightness of the indicators:
1) Move your finger closer to the center of the button and hold it for 10 seconds in such a way that no touch field is activated (during this operation the white indicators in all fields will be constantly on).
2) Entering the personalization mode will be confirmed by blinking of an orange indicator on touch field 1.
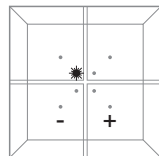
3) Using the touch fields marked in the figure as "-" and "+", set the brightness of the indicators in the inactive state; the set brightness is displayed continuously with white indicators.

4) In order to confirm the brightness level in the inactive state press the touch field No. 1 (with blinking orange indicator); after this operation the orange indicator in field No. 2 will start blinking indicating active personalization mode in the active state.

5) Using the touch fields marked in the figure as "-", set the brightness of the indicators in the active state; the set brightness is displayed continuously with white indicators.
6) To confirm the brightness level in the active state, press touch field No.2 (with blinking orange indicator); after this operation the indicators in fields No. 1 and 2 will start blinking indicating that the behavior of the activation indicators can be set.
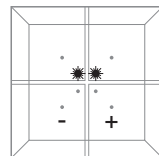
7) Slow blinking of the indicators indicates a mode in which the indicators will be on whenever the output is activated. Fast blinking of the indicators indicates a mode in which the indicators will be turned on when the output is on and your hand is close to the button. The change is made by pressing the buttons marked as "-" and "+".

8) Press button No. 1 or 2 to confirm the indicator mode.
9) Lack of any user action for 10 seconds will result in leaving the personalization mode, taking into account already approved changes.

Technical data

power supply	9÷30 V DC
control element	transistor
control	
voltage	supply voltage -0,5 V
potential-free	open collector of the OC-type
load capacity	30 mA/ channel
power consumption	
standby	<0.1 W
on	<0.5 W
working temperature	-25÷50°
terminal	2.5 mm² screw terminals
tightening torque	0.4 Nm
dimensions	81×81×12 mm
mounting	in Ø60 flush-mounted box
protection level	
front	IP50
back	IP20

CE declaration
A copy of the CE declaration can be downloaded from the website: www.fif.com.pl from the product subpage.