

**Binary Output GE 561**  
**3 x 230 V AC / 10 A, 42 x 28 mm**
**5WG1 561-4AB02**

## Product and Applications Description



The GE 561 binary output has an oblong design and is therefore suitable for mounting in devices or for separate mounting. It has three volt free contacts to switch on/off various electric loads.

These volt free contacts can be assigned various switching modes depending on the application program used, i.e. the binary output GE 561 consists of the device (hardware) and its application programs (software).

Appropriate application programs are available for the different tasks the binary output GE 561 can handle; e.g. for non-delayed on/off switching or for controlling electrothermal actuators.

With the ETS (EIB Tool Software) the application program is selected, its parameters and addresses are assigned appropriately, and downloaded to the binary output GE 561.

## Application Programs

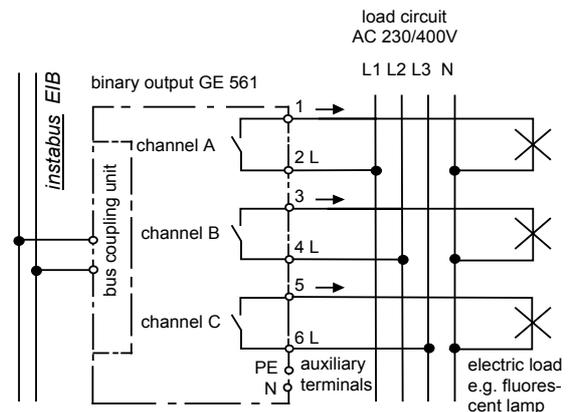
### 11 A3 Binary 530501

- 3 binary outputs
- 1 positive drive each
- allows switching on bus voltage failure
- allows switching on bus voltage recurrence
- relay mode

### 11 A3 Binary 530B01

- 3 binary outputs
- allows states to be read via bus
- 1 logic operation
- allows switching on bus voltage failure
- allows switching on bus voltage recurrence
- relay mode

## Example of Operation



## Installation Instructions

- The device may be used for permanent interior installations in dry locations within casings or other devices, or surface mounted.



### WARNING

- The device must be mounted and commissioned by an authorised electrician.
- Take care that 230 V devices that are used in combination with this device provide a basic insulation of 250 V to the line; otherwise a safety distance of 4 mm must be kept. If in doubt, an extra insulation should be added.
- A safety disconnection of the device must be possible. Especially if the device is connected to different phases.
- The prevailing safety rules must be heeded.
- The device must not be opened.
- For planning and construction of electric installations, the relevant guidelines, regulations and standards of the respective country are to be considered.

**Binary Output GE 561**  
**3 x 230 V AC / 10 A, 42 x 28 mm**

**5WG1 561-4AB02**

## Technical Specifications

### Power supply

via bus line

### Outputs

- number: 3 outputs (volt free contacts)
- rated voltage: AC 230 V, 47 ... 63 Hz
- rated current: 10 A resistive load
- switching current at AC 230 V:  
0,01 ... 10 A resistive load
- switching current at DC 24 V:  
10 A resistive load, 4 A inductive load (L/R = 7 ms)
- switching characteristic: set in parameter list according to application program

### Switching power at AC 230 V

- at incandescent lamp load: max. 1000 W
- at fluorescent lamp (FL) load:
  - uncorrected FL,  $\cos \varphi = 0,5$ : max. 500 W
  - parallel corrected FL,  $\cos \varphi = 1$  (at  $C_{tot} \leq 14 \mu F$ ):  
2 x 58 W or 3 x 36 W or 6 x 18 W
  - twin-lamp circuit,  $\cos \varphi = 1$ : max. 1000 W
  - OSRAM ECG for 58 W FL: max. 10 units
  - OSRAM ECG for 36 W FL : max. 15 units
  - OSRAM ECG for 18 W FL : max. 20 units

### Control elements

1 learning button:

for switching between normal operating mode and addressing mode

### Display elements

1 red LED:

for monitoring bus voltage and displaying mode

### Connections

- load circuit, physical:
  - strip insulation for 9 ... 10 mm
  - permissible conductor types/cross sections:
    - 0,5 ... 2,5 mm<sup>2</sup> single core or flexible conductor,  
8 mm ultrasonically compacted
    - 0,5 ... 2,5 mm<sup>2</sup> flexible conductor with terminal pin,  
crimped on gas tight
    - 0,5 ... 1,5 mm<sup>2</sup> flexible conductor with connector  
sleeve
    - 1,0 and 1,5 mm<sup>2</sup> plain flexible conductor
- load circuit, electrical:
  - plain flexible conductor, min. 1 mm<sup>2</sup>:  
current carrying capacity max. 6 A
  - all other conductors, min. 1,5 mm<sup>2</sup>:  
current carrying capacity max. 10 A

- The load circuits must be protected with a 10 A miniature circuit breaker A or B characteristic.

- bus line: screwless bus connection block  
Ø 0,6 ... 0,8 mm single core  
remove approx. 5mm of isolation

### Physical specifications

- housing: plastic
- dimensions (W x H x L): 42 x 28 x 274,5 mm
- weight: approx. 190 g
- fire load: approx. 3800 kJ ± 10 %
- installation: screw-mount into devices

### Electrical safety

- Degree of pollution (according to IEC 60664-1): 2
- protection (according to EN 60529): IP 20
- overvoltage class (according to IEC 60664-1): III
- bus: safety extra low voltage SELV DC 24 V
- the device complies with:  
EN 50090-2-2 and EN 60669-2-1

### Certification

rate of failure: 708 fit at 40 °C

### Electromagnetic compatibility

complies with  
EN 50081-1, EN 50082-2 and EN 50090-2-2

### Environmental specifications

- climatic conditions: EN 50090-2-2
- ambient temperature operating: - 5 ... + 45 °C
- ambient temperature non-op.: - 25 ... + 70 °C
- relative humidity (non-condensing): 5 % to 93 %

### Certification

EIB certificate

### CE norm

complies with the EMC regulations (residential and functional buildings), and low voltage regulations

**Binary Output GE 561**  
**3 x 230 V AC / 10 A, 42 x 28 mm**

**5WG1 561-4AB02**

### Location and Function of the Display and Operator Elements

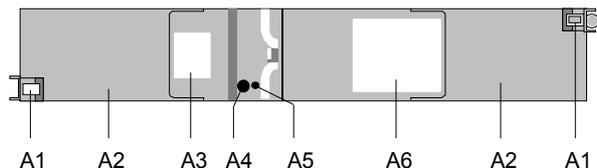


Figure 1: Location of the display and operator elements

- A1 Levers for snapping the cover lids shut
- A2 Cover lids of the connection block compartments
- A3 Label for noting the physical address
- A4 Learning button for switching between normal operating mode and addressing mode
- A5 LED for indicating normal operating mode (LED off) and addressing mode (LED on); upon receiving the physical address the device automatically returns to normal operating mode
- A6 Type plate

### Mounting and Wiring

#### General description

The devices can be built into casings or mounted separately with two screws,  $\varnothing$  4 mm.

#### Opening the connection block compartment (Figure 2)

- Press the snap levers (A1) outwards (black arrows) and remove the cover lids (A2) of the compartments.

#### Closing the connection block compartment (Figure 2)

- Press the cover (A2) down until it clicks into place.

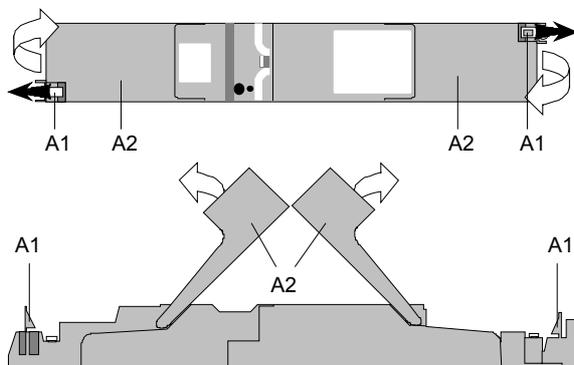


Figure 2: Opening and closing the cover lids

#### Slipping off bus connection blocks (Figure 3)

- The bus connection block (B3) is situated in the left connection block compartment. It consists of two components (B3.2 and B3.3) with four terminal contacts each. Take care not to damage the two test sockets (B3.1) by accidentally connecting them to the bus cable or with the screw-driver (e.g. when attempting to unplug the bus connection block).
- Carefully put the screw-driver to the wire-inserting slit of the bus connection block's grey component (B3.3) and pull the bus connection block (B3) from the built-in device. When removing the red component of the bus connection block, the grey component remains in the compartment.

#### Note

Don't try to remove the bus connection block from the bottom side! There is a risk of shorting-out the device!

#### Slipping on bus connection blocks (Figure 3)

- Slip the bus connection block onto the guide slot and
- press the bus connection block (B3) down to the stop.

#### Connecting bus cables (Figure 3 "A")

- The bus connection block (B3) can be used with single core conductors  $\varnothing$  0,6 ... 0,8 mm.
- Remove approx. 5 mm of insulation from the conductor (B3.4) and plug it into the bus connection block (B3) (red = +, black = -).
- The sheathing of the bus cable must be attached to the casing of the built-in device via the conductor fixing (B1). When using a cable with shielding, it can be screwed onto the terminal (B7, Figure 3).

The recess (B2) can be used to accommodate an over-voltage protection which is connected to the bus connection block in parallel with the bus line (Figure 3).

#### Disconnecting bus cables (Figure 3 "A")

- Unplug the bus connection block (B3) and remove the bus cable conductor (B3.4) while simultaneously wiggling it.

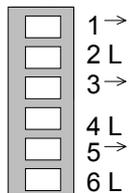
#### Connecting load circuits (Figure 3 "B")

- The load circuit is connected to screwless plug-in terminals (B4).
- Remove approx. 9 to 10 mm of insulation from the wire (B4.1) and plug it into the terminal (B4).
- The sheathing of the cable must be attached to the casing of the built-in device via the conductor clamp (B8, Figure 3).

**Binary Output GE 561**  
**3 x 230 V AC / 10 A, 42 x 28 mm**

**5WG1 561-4AB02**

- Plug-in terminal assignment:



The terminals (B5) and (B6) are used to connect the N wires (B6) and PE wires (B5) of several cables (Figure 3).

Conductor cross sections:

- load circuit, physical:
  - strip insulation for 9 ... 10 mm
  - permissible conductor types/cross sections:
    - 0,5 ... 2,5 mm<sup>2</sup> single core or flexible conductor, 8 mm ultrasonically compacted
    - 0,5 ... 2,5 mm<sup>2</sup> flexible conductor with terminal pin, crimped on gas tight
    - 0,5 ... 1,5 mm<sup>2</sup> flexible conductor with connector sleeve
    - 1,0 and 1,5 mm<sup>2</sup> plain flexible conductor
- load circuit, electrical:
  - plain flexible conductor, min. 1 mm<sup>2</sup>: current carrying capacity max. 6 A
  - all other conductors, min. 1,5 mm<sup>2</sup>: current carrying capacity max. 10 A
  - The load circuits must be protected with a 10 A miniature circuit breaker A or B characteristic.
  - bus line: screwless bus connection block Ø 0,6 ... 0,8 mm single core

Disconnecting load circuits (Figure 3 "B")

- Press the terminal lock (B4.2) with a screw-driver and
- remove the connector (B4.1) from the terminal (B4).

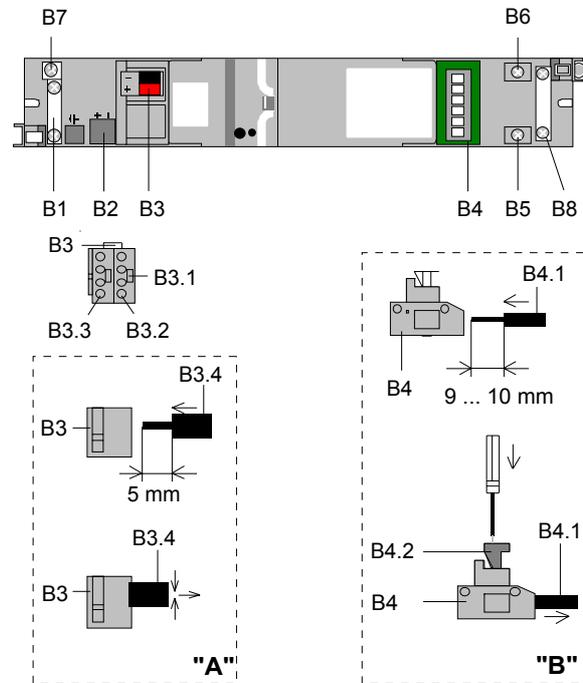
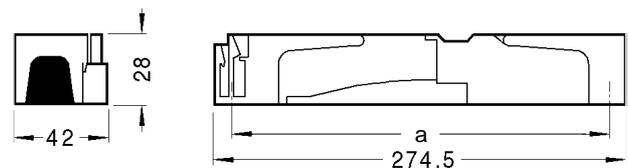


Figure 3: Connections

**Dimension Diagram**

Dimensions in mm



Mounting holes: a = 249-251 mm

**General Notes**

- Any faulty devices should be returned to the local Siemens office.
- If you have further questions about the product, please contact our Technical Support:

☎ +49 (0) 180 50 50-222  
 ☎ +49 (0) 180 50 50-223  
 ✉ [adsupport@siemens.com](mailto:adsupport@siemens.com)