Binary Output GE 563 **5WG1 563-4AB01**
2 x 230 V AC / 10 A, 28 x 28 mm

Product and Applications Description

The GE 563 binary output has an oblong design and is therefore suitable for mounting in devices or for separate mounting.

It has two 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 563 consists of the device (hardware) and its application programs (software).

Appropriate application programs are available for the different tasks the binary output GE 563 can handle; e.g. for on/off switching (directly or positive drive), time switch (non-delayed on, delayed off) or delayed on/off switching.
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 563.

Application Programs

11 A2 Binary 520401
- 2 binary outputs
- 1 logic operation each
- on/off-delay mode
- timer function
- allows switching on bus voltage failure
- relay mode

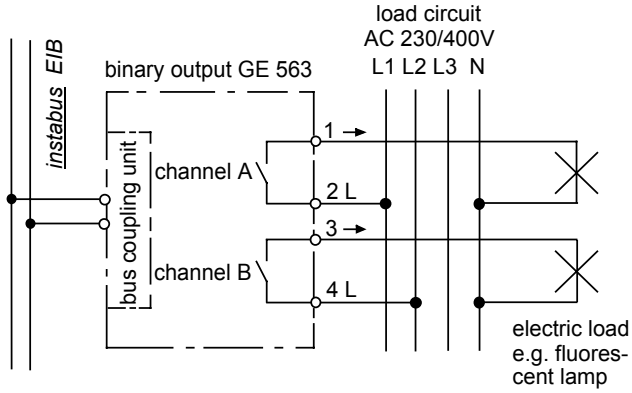
11 A2 Binary 520501
- 2 binary outputs
- 1 positive drive each
- allows switching on bus voltage failure
- allows switching on bus voltage recurrence
- relay mode

11 A2 Thermo 520802
- 2 binary outputs for controlling electrothermal actuators and monitoring temperature sensors
- 3 window contacts each
- 1 alarm message each
- allows switching on bus voltage failure
- allows adjustment of electrothermal actuator characteristic

11 A2 Binary 520901
- 2 binary outputs
- allows state to be read via bus
- on/off-delay mode
- timer function
- allows switching on bus voltage failure
- allows switching on bus voltage recurrence
- relay mode

11 A2 Binary 520B01
- 2 binary outputs
- allows state 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



instabus EIB

Technical Product Information

April 2003

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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.

Technical Specifications

Power supply
via bus line

Outputs
- 2 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 φ 0,5: max. 500 W
  - parallel corrected FL, cos φ 1
    (at Ctot <= 14 µF): 2 x 58 W or 3 x 36 W or 6 x 18 W
  - twin-lamp circuit, cos φ 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 mm² single core or flexible conductor, 8 mm ultrasonically compacted
  - 0,5 ... 2,5 mm² flexible conductor with terminal pin, crimped on gas tight
  - 0,5 ... 1,5 mm² flexible conductor with connector sleeve
  - 1,0 and 1,5 mm² plain flexible conductor
- load circuit, electrical:
  - plain flexible conductor, min. 1 mm²:
    current carrying capacity max. 6 A
  - all other conductors, min. 1,5 mm²:
    current carrying capacity max. 10 A
  - the load circuits have to be saved by a circuit breaker with A or B characteristic with a maximum nominal current of 10 A!
- 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): 28 x 28 x 336 mm
- weight: approx. 160 g
- fire load: approx. 4200 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
- relay with µ-contact
- the device complies with:
  EN 50090-2-2 and EN 60669-2-1

Reliability
rate of failure: 653 fit at 40 °C

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

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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

Location and Function of the Display and Operator Elements

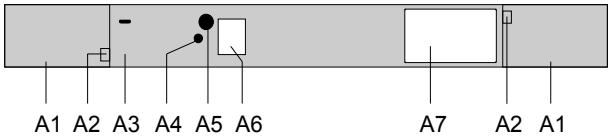

Figure 1: Location of the display and operator elements

A1 Connection block compartment cover
A2 Auxiliary slits for removing the covers (A1)
A3 Polarity indication for the bus cable (+ -)
A4 LED for indicating normal operating mode (LED off) and addressing mode (LED on); on receiving the physical address the device automatically returns to normal operating mode
A5 Learning button for switching between normal operating mode and addressing mode and for receiving the physical address
A6 Label for noting the physical address
A7 Type plate

Mounting and Wiring

General description
The bus devices can be built into casings or mounted separately with two screws Ø 4 mm.
Wires with a maximum sheathing diameter of 13 mm may be used.

Opening the connection block compartment (Figure 2)
- Put a screw-driver to one of the auxiliary slits (A2) and
- turn it in direction of the arrow with a slight application of pressure until the cover (A1) comes loose.

Closing the connection block compartment (Figure 2)
- Slip the cover (A1) onto the guide rails (A4) below the connection block compartment (A3), then press on the sides of the cover (A1) until it clicks into place audibly.

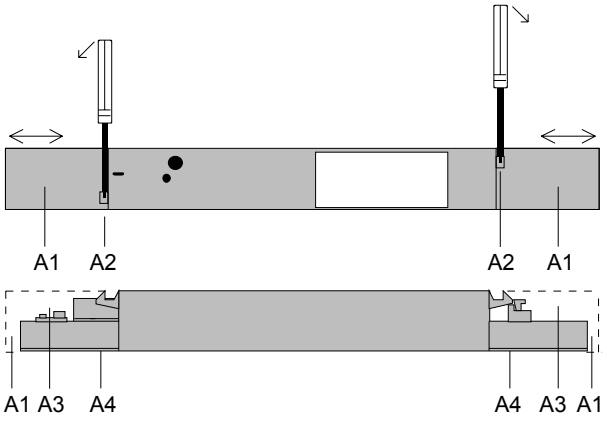

Figure 2: Opening and closing the covers

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 Ø 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 = +, grey = -).
- The sheathing of the bus cable must be attached to the casing of the built-in device via the conductor fixing (B1). Note there is not a clamp (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.

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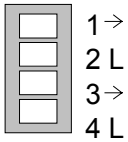
Connecting load circuits (Figure 3 “B“)
- The load circuit is connected to screwless plug-in terminals (B4).
- Remove approx. 9 to 10 mm of insulation from the wire (B4.1) and plug it into the terminal (B4).
- The sheathing of the cable must be attached to the casing of the built-in device via the conductor clamp (B2, Figure 3).
  Mounting the conductor clomps:
  Both parts have to be mounted simultaneously one laid upon the other.
- Plug-in terminal assignment:



Conductor cross sections:
- load circuit, physical:
  strip insulation for 9 ... 10 mm
  permissible conductor types/cross sections:
  - 0,5 ... 2,5 mm² single core or flexible conductor, 8 mm ultrasonically compacted
  - 0,5 ... 2,5 mm² flexible conductor with terminal pin, crimped on gas tight
  - 0,5 ... 1,5 mm² flexible conductor with connector sleeve
  - 1,0 and 1,5 mm² plain flexible conductor
- load circuit, electrical:
  - plain flexible conductor, min. 1 mm²: current carrying capacity max. 6 A
  - all other conductors, min. 1,5 mm²: current carrying capacity max. 10 A
- 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).

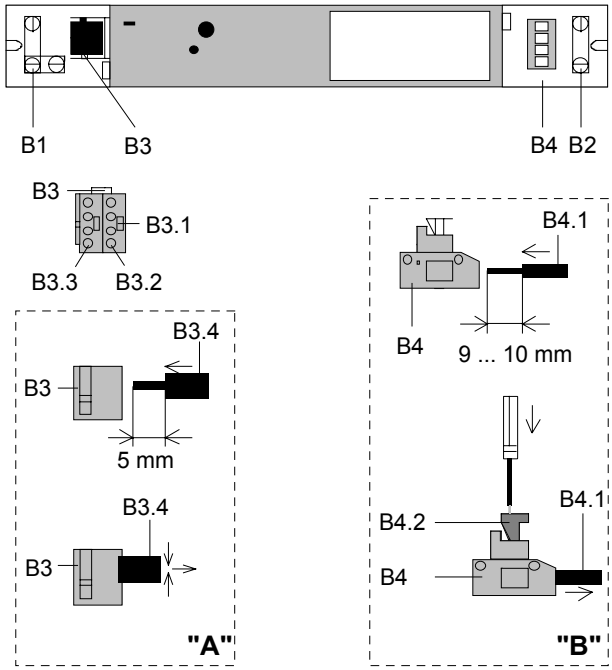
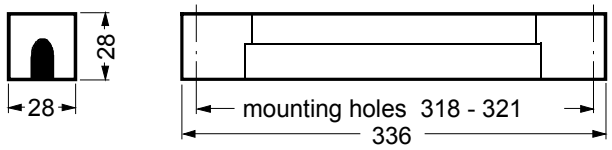


Figure 3: Connections

Dimension Diagram

Dimensions in mm



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:

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✉ adsupport@siemens.com