



73 - 1 - 6212
26195

ABB i-bus® EIB
Heating Actuator

6164 U - 500

GJ B000 6151 A0168

for flush-mounted installation

D

GB

F

NL

E

I

S

Operating Instructions

only for authorized, skilled electricians
with EIB training



Important instructions	Fig.2 / Wiring Diagram
Fig. 1 / Overall View	Mounting Instructions
Product Description	Mounting
Technical Data	Commissioning

Notes

The manufacturer database of ABB is continuously updated. It stores the latest applications. For relevant descriptions see the Technical Manual of the ABB i-bus® EIB and the respective device windows in the EIBA Tool Software Package ETS2, version 1.1 or higher. In case you do not have the data base or Technical Manual, please ask for it by contacting the respective agency in your country.

All packing materials and devices of ABB have symbols and approval signs indicating suitability for an environmentally benign disposal.

Make sure packaging materials and electrical apparatus and its electronic components are disposed of via appropriately authorized collecting points or disposal companies.

When planning and erecting electrical systems the relevant standards and regulations applicable in the country where the equipment is set up and operated must be duly observed.

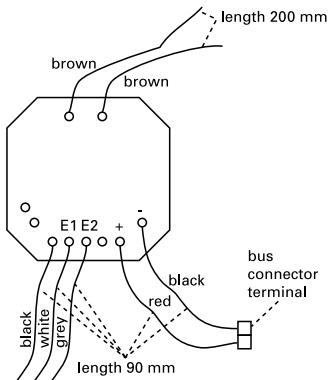
Work on the 230V mains system and EIB bus must exclusively be performed by trained electrical personnel. Laying and connection of the bus line as well as application devices must be in conformity with applicable guidelines specified in the EIB Manual of the European Installation Bus Association (EIBA).

Never open the device for repairs or adjustments. Please observe the „Mounting Instructions“ with regard to type of mounting and materials required. If insulated wires of low-voltage leads (eg. bus lines) and 230-V lines cross or approach each other, a minimum clearance of 4 mm has to be arranged for (see manual of Facility System Technology of ZVEI/ ZVEH).

Make sure environmental conditions are adhered to as called for by safety class and with respect to the admissible operating temperature (see "Technical Data").

The devices are to be programmed using ETS2 (version 1.1 or higher)

Fig. 1 / Overall View



Product Description



Heating actuator 6164 U-500 serves to control heaters or cooling ceilings via thermo-electric positioners (servo-drives).

The output has a noiseless „electronic relay.“ Up to 5 thermo-electric positioners (servo-drives) (24V AC / 230 V AC, eg. 6164/10-500) can be controlled.

Furthermore, optional ohmic loads (eg. a room lighting system) up to 230-W absorbed power (in a 230-V AC system) can be switched.

Potential-free contacts (eg. window contacts) or conventional switches/pushbuttons can be hooked up to the two inputs. The interrogation voltage is supplied via the unit.

Connection to the EIB line is made via two permanently wired leads and one bus connecting terminal.

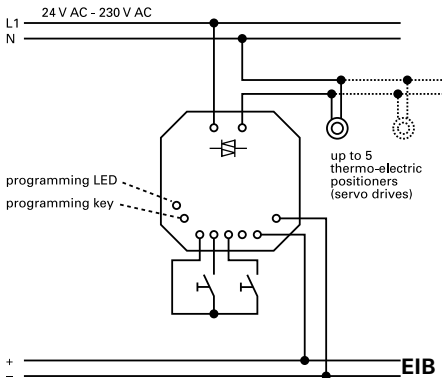
The switching behavior can be parameterized using ETS2 (see Technical Manual of the ABB i-bus® EIB and individual device windows of the EIBA Tool Software ETS2, Release 1.1 or higher).

Power Supply	via ABB i-bus® EIB
Connections	permanent leads with tin-coated wire ends stripped 10 mm
1 Bus connection	via 2 connecting leads with bus connector terminal red/black, 0.8 mm ² conductor cross section appr. 90 mm long
2 Inputs	via connecting leads E1 (white) and E2 (grey) as well as reference potential GND (black), 1 mm ² conductor cross section approx. 90 mm long extendable to 10 m max.
1 Output	via 2 connecting leads brown, 0.56 mm ² conductor cross section appr. 200 mm long

Inputs	2 separate inputs for potential-free contacts
Output	24 V AC ... 230 V AC max. 5 thermo-electric positioners (servo-drives, eg. 6164/10) or in case of ohmic loads max. 1 A up to +25 °C operating temperature, power derating to max. 0.5 A at +60 °C operating temperature
Type of Protection	IP 20 (acc. to DIN EN 60 529 in built-in state)
Operating temperature	- 25 ... + 60 °C
Dimensions	53 x 50 x 24 mm (H x W x D)
Weight	0,08 kg

More information is available with respect to the technical data listed above. Please consult the current Technical Manual of the ABB i-bus® EIB as well as device windows of the ETS2 software.

Fig.2 / Wiring Diagram



Mounting Instructions



If the physical address has not yet been assigned, the programming key (Fig. 2) should remain accessible.

Do not cut in the required 230-V power supply before all connections have been properly hooked up and insulated!

The unit can be mounted in a cable duct with two combined wall and joint boxes (due to separation of low voltage and 230-V system).

For flush-mounted installation two deep double boxes or one electronic box (eg. Kaiser make) can be used.

With both installation methods the connecting leads for the positioner (servo-drive) are run out of the box via central disk 2527-xx or 1749-xx.

Connection must only be effected via *push-lock (screwless) box terminals*.

To adhere to the safety class specified under „Technical Data“ the connecting terminals have to be placed inside the mounting boxes.

- **Switch off the 230-V mains supply!**
- In the event the connecting leads have to be extended:
 - Run these leads (max. 2.5 mm² conductor cross section) into the interior of the mounting enclosure to be used (eg. flush-mounted double box).
 - Connect these leads to the screwless box terminals provided for this purpose.
- Hook up the connecting lines of the unit as shown in the wiring diagram (Fig. 2).
- Unless done earlier, assign the physical address (see Commissioning).
- Complete mounting work:
The 230-V mains supply must be disconnected!
A special fastening arrangement or mounting position of the unit is not required.
Place the unit into the mounting box and close off box(es).

The relevant application versions available with pertinent parameters can be seen from the current Technical Manual of the ABB i-bus® EIB.

- Connect a PC with EIBA Tool Software (ETS2 V1.1) to the EIB via an RS232 interface.

- Switch on the power supply to the EIB bus line.

- Assign a physical address.

Do not use pointed or sharp-edged objects when pressing the programming key because this might damage the flexible cover over the key opening!

- Press the programming key;
the red programming LED will become illuminated.
 - After the physical address has been programmed, the red LED will go out.
 - Write the number of the physical address on your device using a smudge-proof pencil.
- Select and parameterize the application.
 - Assign the group address(es).
 - Cut in the 230-V power supply.