

|                      |                     |
|----------------------|---------------------|
| GC Lock Control SHEV | EN   Wiring diagram |
| 207560-00            |                     |

Translation of the original operating instructions  
for device version 1.0/A0



## GC Lock Control SHEV

### Brief description

The GC Lock Control SHEV is an interface module for draught solutions on:

- single leaf and double leaf doors in conjunction with
  - SHEV control panels,
  - retractable arm drives and
  - motor locks.

When smoke and heat extraction is needed, the door unlocks and opens.

### Safety notes

- Follow the safety notes.
- Warranty claims require proper mounting, installation and main-tenance in accordance with the manufacturer's specifications.
- Only use GEZE original parts for repairs and servicing.
- Assembly, commissioning and maintenance may only be carried out by experts.
- The power supply may only be connected to the mains voltage by an electrician. The power connection and protective earth test must be carried out in accordance with DIN VDE 0100-600.
- Observe the latest versions of guidelines, standards and country-specific regulations.
- Protect the GC Lock Control SHEV against water and contamination from the construction process.
- The GC Lock Control SHEV is a safety-related component and detailed specialist knowledge gained through product training is required to understand it.

### Notes on the protection of power-operated windows

In accordance with Machinery Directive 2006/42/EC a risk analysis must be prepared for power-operated windows. The GEZE safety analysis for power-operated windows can serve as a guide for the risk analysis. It is available in the download area for the IQ box Safety under [www.geze.de](http://www.geze.de).

### Area of application

The GC Lock Control SHEV allows for simple and safe wiring of components used on a single- or double leaf RWA fresh air door. In the case of fire, the GC Lock Control SHEV supplies the components with power and activates them accordingly via the regulated SHEV control panel. Thanks to the option of connecting a DC/DC converter to the GC Lock Control SHEV, either 24 V or 12 V motor locks can be operated, or a combination of the two. In normal operation, power can be provided to the motor locks by connecting a power supply to the GC Lock Control SHEV.

### Connection and commissioning

- Install the GC Lock Control SHEV on a 35 mm top hat rail in a control cabinet or suitable surface-mounted casing.
- Connect the SHEV control panel, power supply, suitable motor locks, the K600 retractable arm drive and all other inputs and outputs to the GC Lock Control SHEV as described.
- A DC/DC converter 24V/12V DC must be connected for 12 V DC motor locks.
- After the supply voltage is connected, the power LED will be illuminated green.
- Check the behaviour of the system during normal operation and in case of a smoke and heat extraction system alarm.
- Train the customer and provide the documentation.

### Formula for calculating the cable cross-section

Cable cross section = Cable length x total current of all drives / 73  
Example for maximum cable lengths depending on cable cross-section and total current of drives:

| Cable cross-section | 1 A   | 2 A  | 4 A  | 4.5 A |
|---------------------|-------|------|------|-------|
| 1.5 mm <sup>2</sup> | 100 m | 50 m | 25 m | 23 m  |
| 2.5 mm <sup>2</sup> | 180 m | 90 m | 45 m | 40 m  |

max. clamp cross section: 2.5 mm<sup>2</sup>

### Maintenance

GEZE specifies regular maintenance (at least 1x annually) for the entire air intake, which is part of a smoke and heat extraction system. The maintenance be carried out by a suitably qualified person.

### Disposal

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Damage to the environment can occur if disposal is not carried out properly. For this reason, heed the following notes:
- 
  - Always follow the applicable country-specific disposal and environmental protection regulations.
  - Do not dispose of the products with household waste.

### Technical data

|         |                      |                                                                                                                                                                                                              |
|---------|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General | ID                   | 207168                                                                                                                                                                                                       |
|         | Note                 | Use one GC Lock Control SHEV per fresh air door (single or double leaf) with motor lock.                                                                                                                     |
|         | Modes of operation   | <ul style="list-style-type: none"><li>▪ Normal operation (daily use): Supply of volt-age from power supply</li><li>▪ Smoke and heat extraction system alarm: Power supply from SHEV control panels</li></ul> |
|         | Type of installation | Installation on 35 mm top hat rail                                                                                                                                                                           |
|         | Dimensions           | 90 mm x 60 mm x 35 mm                                                                                                                                                                                        |
|         | IP rating            | IP 20                                                                                                                                                                                                        |
|         | Protection class     | III                                                                                                                                                                                                          |
|         | Ambient temperature  | -5°C...+70°C                                                                                                                                                                                                 |

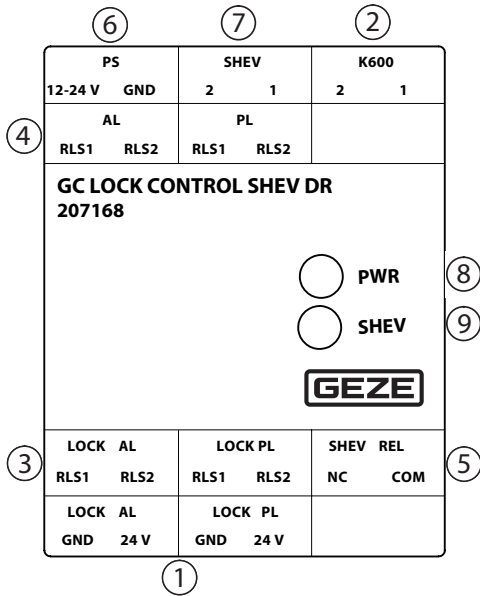
|                 |                                                    |                                                                                                                       |
|-----------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Electrical data | Supply voltage to power supply                     | 12...24 V DC                                                                                                          |
|                 | Supply voltage to smoke and heat extraction system | 18...30 V                                                                                                             |
|                 | Lock output voltage                                | 24 V DC -1% +15%                                                                                                      |
|                 | Drive output voltage                               | 18...30 V                                                                                                             |
|                 | Induced current intake                             | 150 mA at 12 V<br>20 mA at 24 V                                                                                       |
|                 | Max. total current load for Drives:<br>Locks:      | 4.5 A<br>1.25 A at 12 V / 4.5 A at 24 V                                                                               |
|                 | Connection cross-section terminals                 | max. 2.5 mm <sup>2</sup>                                                                                              |
|                 | Cable length                                       | See the formula for calculating cable cross-section.                                                                  |
|                 | 2 inputs for Potential-free release contacts       | For unlocking the door (passive and active leaf). Such as a release signal from a swing door drive or access control. |
|                 | 1 potential-free output                            | Relay for alarm message in the case of fire. Max. contact load 30 V DC/1 A                                            |

|                  |                        |                                                                                           |
|------------------|------------------------|-------------------------------------------------------------------------------------------|
| Drives and locks | Compatible drives      | K600                                                                                      |
|                  | Compatible motor locks | 24 V, up to 4.5 A<br>12 V, up to 1.25 A in combination with DC/ DC converter (ID: 207996) |

### Accessories

| Designation                                       | ID     |
|---------------------------------------------------|--------|
| NT 1.5 A-24 V HS power supply                     | 151425 |
| NT 2.5 A-24 V HS power supply                     | 151424 |
| NT 6.25 A-24 V HS power supply                    | 192113 |
| Power supply DC/DC converter HS 24-12 V DC, 1.25A | 207996 |
| GEZE surface-mounted housing                      | 152010 |

### Operating elements and parameter setting



| Pos. | Component                                                             | State      | Explanation                              |
|------|-----------------------------------------------------------------------|------------|------------------------------------------|
| 1    | Connect motor lock supply to active (AL) and passive leaf (PL)        |            | See wiring diagrams                      |
| 2    | Connect retractable arm drive K 600                                   |            | See wiring diagrams                      |
| 3    | Connect motor lock activation to active (AL) and passive leaf (PL)    |            | See wiring diagrams                      |
| 4    | Connect external release signal for active (AL) and passive leaf (PL) |            | See wiring diagrams                      |
| 5    | Alarm relay                                                           |            | See wiring diagrams                      |
| 6    | Supply voltage for motor locks 12 / 24V DC                            |            | See wiring diagrams                      |
| 7    | SHEV control panel (regulated)                                        |            | See wiring diagrams                      |
| 8    | Power LED                                                             | on (green) | Ready for operation, supply voltage ON   |
| 9    | SHEV LED                                                              | on (red)   | Signal input from the SHEV control panel |

