

**System 2000 HLK relay insert**  
Order No. : 0303 00

**Operating instructions**

**1 Safety instructions**

Electrical equipment may only be installed and fitted by electrically skilled persons.

Failure to observe the instructions may cause damage to the device and result in fire and other hazards.

**Danger of electric shock. Always disconnect before carrying out work on the device or load. At the same time, take into account all circuit breakers that supply dangerous voltage to the device or load.**

**Danger of electric shock. Device is not suitable for disconnection from supply voltage.**

**Danger of electric shock on the SELV/PELV installation. Not suitable for switching SELV/PELV voltages.**

**Danger of electric shock. Do not operate the insert without a cover.**

These instructions are an integral part of the product, and must remain with the end customer.

**2 Device components**

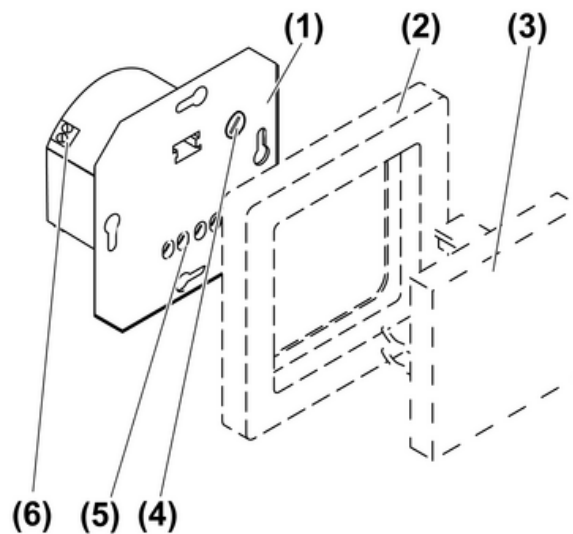


Figure 1

- (1) Flush-mounted insert
- (2) Frame
- (3) Pushbutton cover
- (4) Adjuster for run-on time of output **HLK**
- (5) Connection terminals for mains voltage and output **Kanal 1**
- (6) Connection terminals for output **HLK** for HVAC

**3 Function**

**Intended use**

- Output **Kanal 1** for switching light
- Output **HLK** for switching light, fans, air conditioners, thermostats and motors

- Operation with suitable cover
- Installation in appliance box to DIN 49073

### Product characteristics

- Output **HLK** with potential-free NO contact for switching a second electric circuit, not SELV or PELV
- Switch-on delay of output **HLK** can be switched off
- Run-on time of output **HLK** adjustable
- Connection of extensions possible

### Function with motion detector or presence detector cover

#### Output **Kanal 1**

- Output is switched on if motions are detected and the brightness is below the threshold set on the cover.
- Output remains switched on as long as motions are detected.
- Output is switched off if no more motions are detected and the run-on time set on the cover has elapsed.

#### Output **HLK**

- Switch-on delay switched on: output is switched on independently of the brightness after 3 minutes if additional motions are detected approx. 2.5 to 3 minutes after the initial detection.
- Switch-on delay switched off: output is switched on independently of brightness if motion is detected.
- Output remains switched on as long as motions are detected.
- Output is switched off if no more motions are detected and the run-on time set on the insert has elapsed.

### Behaviour after a mains voltage failure

- Less than 0.2 seconds: switching state is retained
- longer than 0.2 seconds: both channels switch off. The behaviour after mains voltage return depends on the cover used (see instructions for the cover).

## 4 Operation

### Switching on with pushbutton cover (see Accessories)

Operation on the main device, 2-wire extension or on the installation button is identical.

**i** Extension operation is only possible if there is a cover fitted on the main device.

Outputs are switched off.

- Press the button.

Output **Kanal 1** switches on.

When the switch-on delay for output **HLK** is switched off, output **HLK** switches on directly.

When the switch-on delay for output **HLK** is switched on, output **HLK** switches on with a time delay, if output **Kanal 1** is switched on for longer than 3 minutes.

### Switching off with pushbutton cover (see Accessories)

Outputs are switched on.

- Press the button.

Output **Kanal 1** switches off.

Output **HLK** switches off after the run-on time set on the insert elapses. The run-on time begins as soon as output **Kanal 1** has switched off.

### Switching on in combination with motion detector or presence detector

Operation is performed with a 2-wire extension or an installation button. Only an overview of the behaviour is provided here. For additional information, please refer to the instructions for the cover in question. Operation with an extension is only possible if there is a cover fitted on the main device.

Outputs are switched off.

- Press extension.  
Output **Kanal 1** switches on.

When the switch-on delay for output **HLK** is switched off, output **HLK** switches on directly.

When the switch-on delay for output **HLK** is switched on, output **HLK** switches on after a time delay of 3 minutes, if no additional motions are detected for approx. 2.5 to 3 minutes after the extension is operated.

#### Switching off in combination with motion detector or presence detector

- i** Combination with motion detector: outputs cannot be switched off.
- i** Combination with presence detector: the output **HLK** cannot be switched off.

Outputs are switched on.

- Press extension.  
Output **Kanal 1** switches off for 3 minutes. Any motions that are detected extend the time. During these 3 minutes output **Kanal 1** can only be switched on again via the extension.

## 5 Information for electrically skilled persons

### 5.1 Fitting and electrical connection



#### DANGER!

Electrical shock when live parts are touched.

Electrical shocks can be fatal.

Before carrying out work on the device or load, disengage all the corresponding circuit breakers. Cover up live parts in the working environment.

#### Connecting and mounting the insert

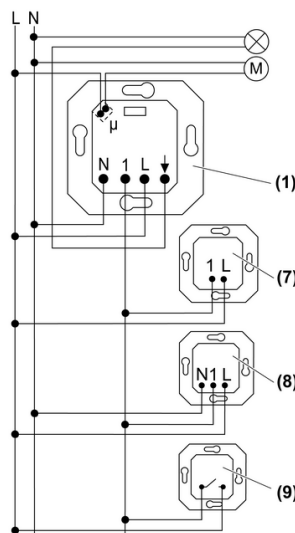


Figure 2: Connection diagram with optional extensions

- (1) Flush-mounted insert
- (7) Extension insert, 2-wire
- (8) Extension insert, 3-wire
- (9) Installation button, NO contact

- i** Outputs **Kanal 1** and **HLK** are not protected internally. For device protection, connect a 10 A miniature circuit breaker upstream.

- Connect insert according to connection diagram (Figure 2).
- i** Output **HLK** can be used to switch a second external conductor.
- i** For extension units use the electric circuit of output **Kanal 1**.
- i** Illuminated installation buttons may only be connected if they have a separate N terminal.
- Connect the extensions, optional.
- Install insert in appliance box, terminals must be at the bottom.
- If multiple miniature circuit breakers supply dangerous voltages to the device or load, couple the miniature circuit breakers or label them with a warning, to ensure release is guaranteed.
- Set run-on time for output **HLK** (see Commissioning).
- Attach the frame and the cover.
- Switch on mains voltage.

## 5.2 Commissioning



### **DANGER!**

**Electrical shock when live parts are touched.**

**Electrical shocks can be fatal.**

**Before carrying out work on the device or load, disengage all the corresponding circuit breakers. Cover up live parts in the working environment.**

### **Switching switch-on delay for output HLK on and off**

The switch-on delay for output **HLK** can be switched on or off. In the state as delivered the switch-on delay is switched on.

There is a pushbutton cover (see Accessories) on the HLK insert.

Outputs **Kanal 1** and **HLK** are switched off.

- Press button over entire surface for longer than 3 seconds.  
When the switch-on delay is switched on for output **HLK**, only output **Kanal 1** is switched on. After 3 seconds the switch-on delay is switched off; output **Kanal 1** is switched off again as confirmation.  
When the switch-on delay for output **HLK** is switched off, both outputs are switched on. After 3 seconds the switch-on delay is switched on; both outputs are switched off again as confirmation.

### **Setting run-on time for output HLK**

Output **HLK** remains switched on for the run-on time, after output **Kanal 1** has been switched off or no more motions are detected. The run-on time can be set in five stages between 2 minutes and 120 minutes.

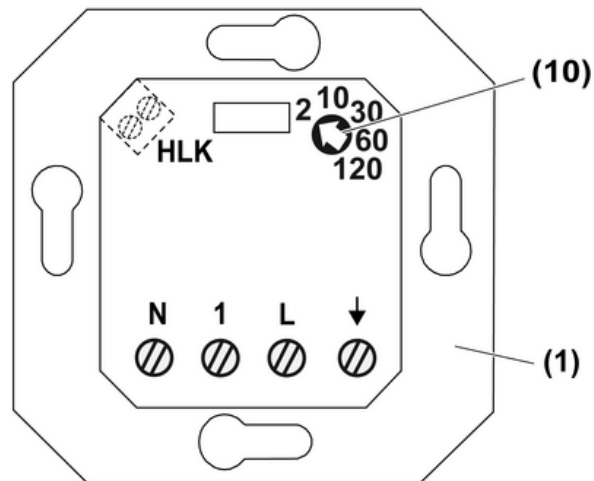


Figure 3: Adjuster for run-on time of output HLK

- (1) Flush-mounted insert
- (10) Adjuster for run-on time of output **HLK**
  - Turn adjuster (10) to the desired time.

## 6 Appendix

### 6.1 Technical data

Rated voltage	AC 230 V ~
Mains frequency	50 / 60 Hz
Ambient temperature	+5 ... +35 °C
Circuit breaker	max. 10 A
Contact type	µ contact
Switching current at 25 °C, Kanal 1	
Ohmic	10 A
Switch-on current max. 4 s at 10% switch-on time	15 A
Minimum switching current AC	100 mA
Connected load at 25 °C, Kanal 1	
Incandescent lamps	1000 W
HV halogen lamps	1000 W
Inductive transformers	750 VA
Tronic transformers	750 W
Fluorescent lamps, uncompensated	500 VA
Electronic ballast	Type-dependent
Connection, Kanal 1	
single stranded	max. 4 mm <sup>2</sup>
finely stranded without conductor sleeve	max. 4 mm <sup>2</sup>
finely stranded with conductor sleeve	max. 2.5 mm <sup>2</sup>
HLK	
Follow-up time	approx. 2, 10, 30, 60, 120 min
Switching voltage	AC 230 V ~
Minimum switching voltage	AC 12 V~
Switching current for AC 230 V ~, 25 °C, HLK	
Ohmic	6 A
Switch-on current	max. 2.1 A
Minimum switching current AC	100 mA
Connected load for 230 V ~, 25 °C, HLK	
Incandescent lamps	800 W
HV halogen lamps	750 W

Motors	450 VA
Connection, HLK	
single stranded	1.5 mm <sup>2</sup>
finely stranded without conductor sleeve	max. 1 mm <sup>2</sup>
finely stranded with conductor sleeve	max. 1 mm <sup>2</sup>
Number of extension units	
Extension insert, 2-wire	unlimited
Extension insert, 3-wire	10
Non-illuminated installation buttons	unlimited
Total length power cable	max. 100 m
Total length of extension unit cable	max. 100 m

## 6.2 Accessories

Top unit for switching and dimming	Order No. 0655 ..
Top unit for switching and dimming	Order No. 2316 ..

## 6.3 Warranty

The warranty is provided in accordance with statutory requirements via the specialist trade.

Please submit or send faulty devices postage paid together with an error description to your responsible salesperson (specialist trade/installation company/electrical specialist trade). They will forward the devices to the Gira Service Center.

**Gira**  
**Giersiepen GmbH & Co. KG**  
Elektro-Installations-  
Systeme

Industriegebiet Mermbach  
Dahlienstraße  
42477 Radevormwald

Postfach 12 20  
42461 Radevormwald

Deutschland

Tel +49(0)21 95 - 602-0  
Fax +49(0)21 95 - 602-191

[www.gira.de](http://www.gira.de)  
[info@gira.de](mailto:info@gira.de)