

## Front view



## Features



- Distortion-free zero-crossing circuit
- Wear-free switching
- High load capacity of 12A / 230V~
- Control by dew-point driven power controllers AHC-XP or TRH-XP with BSM001



### Note!

- Also pay attention to the specifications for the AHC-XP, BSM001 and TRH-XP.

## Writing conventions

Symbol	Meaning
 <b>CAUTION!</b>	Avoid the described hazard: otherwise <b>minor</b> or <b>medium</b> physical injury or damage to property will result.
 <b>WARNING!</b>	Avoid the described hazard: otherwise there is danger from <b>electric voltage</b> that could lead to death or <b>serious</b> physical injury.

## For your safety

For safe operation and to avoid personal injury and equipment damage through operating error, always read these instructions, become familiar with the device, and follow all safety instructions on the product and in this document, as well as the safety guidelines of Wurm GmbH & Co. KG Elektronische Systeme. Keep these instructions ready to hand for quick reference and pass them on with the device if the product is sold.

Wurm GmbH & Co. KG Elektronische Systeme accepts no liability in case of improper use or use for other than the intended purpose.

<b>Target group</b>	These instructions are intended for service technicians.
<b>Intended use</b>	The ECA970 is an electronic load relay for contactless switching of glass and handrail heaters.



### **WARNING!**

#### **Danger of death from electric shock and/or fire!**

- Switch off the power to the entire system when installing, wiring or removing! Otherwise a mains voltage and/or external voltage may still be present even if the control voltage is switched off!
- The wiring of the device should be carried out only by a qualified electrician!
- Use only the correct tools for all work!
- Check all wiring after connection!
- Take note of the maximum loads on all connections!
- Never expose the device to moisture, for example due to condensation or cleaning agents!
- Take the device out of operation if it is faulty or damaged and is therefore compromising safe operation!
- Do not open the device!
- Do not repair the device yourself! If required, send it in for repair with an exact description of the fault!



### **CAUTION!**

#### **Electromagnetic interference can cause malfunctions!**

- Keep the control lines far away from the load lines!

## Validity of the documentation

Date	Functional upgrade	Page
2017-11	Status of the documentation	

Any software versions not listed are special solutions for individual projects and are not described in detail in this document. This document automatically ceases to be valid if a new technical description is issued.

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You can find more information on our website at [www.wurm.de](http://www.wurm.de)

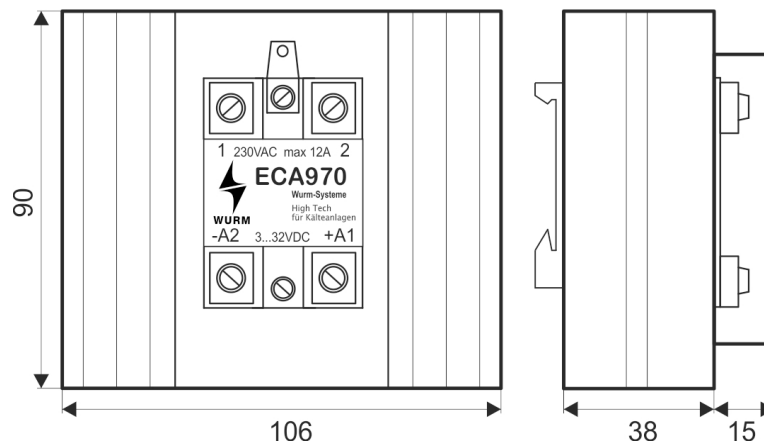
## Installing

**⚠ WARNING!**  
**Danger of death from electric shock and/or fire!**

- Switch off the power to the entire system before installing! Otherwise, a mains voltage and/or external voltage may still be present even though the control voltage is switched off!
- Take note of the maximum loads on all connections!

**⚠ CAUTION!**  
**Electromagnetic interference can cause malfunctions!**

- Keep the control lines far away from the load lines!



**📘 Notes!**

- The ECA970 must be earthed with the appropriate 6.3mm connecting link.
- Provide sufficient ventilation and heat dissipation for the heat sink!

# ECA970

Electronic load relay for contactless switching of glass and handrail heaters



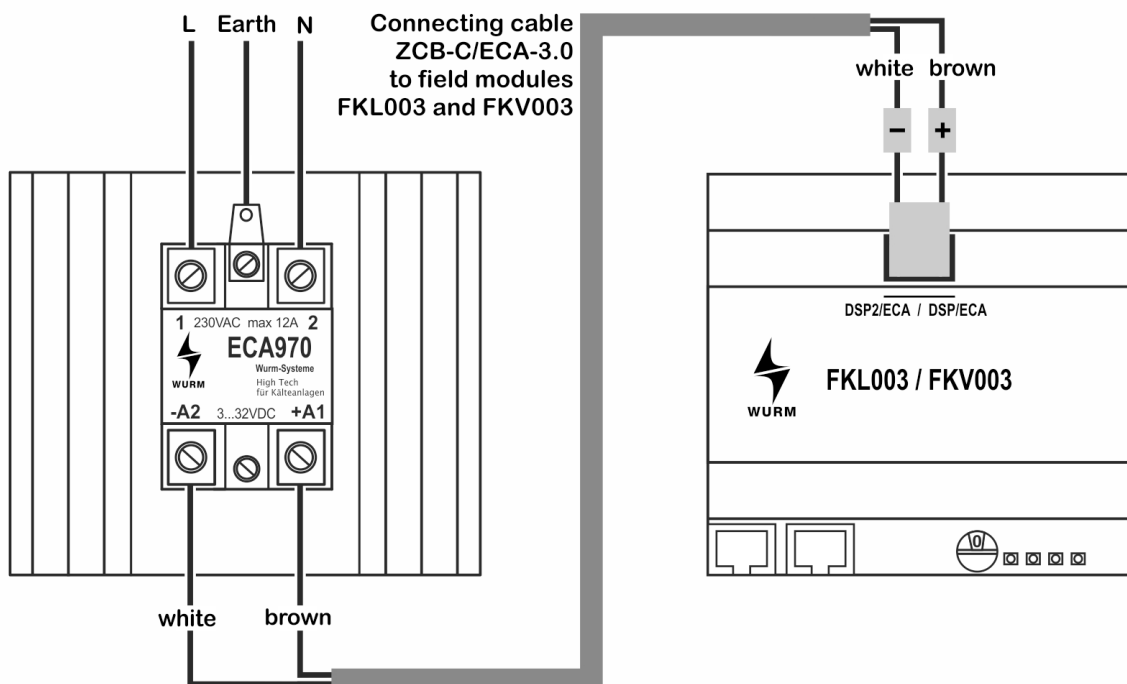
## Connection of the ECA970 to FKL003, FKV003

For contactless switching of glass and handrail heaters, connect the ECA970 to the free display output of field module FKL003 or FKV003. To do this, use the pre-assembled ZCB-C/ECA-3.0 connecting cable.



### Notes!

- Also pay attention to the specifications of the FKL003 and FKV003.
- Glass and handrail heaters can only be controlled through the free display output of the FKL003/FKV003 starting from HKS-G3 V7.62.



## Technical data

<b>Control input</b>	3...32V=
<b>Input resistance</b>	1500Ω ±10%
<b>Switch output</b>	230V~, min. 50mA, max.12A, zero-point switching
<b>Ambient temperature</b>	Operation: 0...+55°C, storage: -25...+70°C
<b>Dimensions</b>	(WxHxD) 106 x 90 x 53mm
<b>Fastening</b>	Top-hat rail TH 35-15 or TH 35-7.5 (DIN EN 60715)
<b>Weight</b>	About 550g
<b>Electrical connection</b>	4 screw terminals 2.5mm <sup>2</sup> , 6.3mm mounting link for grounding connection
<b>CE conformity</b>	EU conformity as defined by - 2014/35/EU (Low Voltage Directive)
	RoHS II