



Electronic load relay for contactless switching of glass and handrail heaters

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



Also pay attention to the descriptions of the AHC-XP, BSM001 and TRH-XP.



Writing conventions

Symbol	Meaning	
Avoid the described hazard: otherwise minor or medium physical injur		
	damage to property will result.	
Avoid the described hazard: otherwise there is danger from electric vol		
	that could lead to death or serious 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.

Target group	These instructions are intended for service technicians.	
Intended use 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!

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Validity of the documentation

Date		
2022-07	Documentation status	
This document automatically ceases to be valid if a new technical description is issued.		
Manufacturer: Wurm GmbH & Co. KG Elektronische Systeme. Morsbachtalstraße 30. D-42857 Remscheid		

You can find more information on our website at <u>www.wurm.de</u>



Installing

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WARNING

Danger of death from electric shock and/or fire!

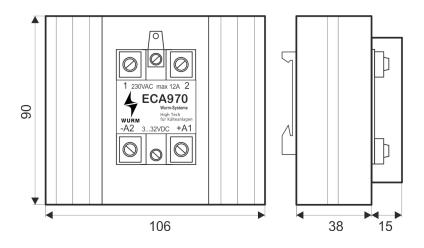
- Switch off the power to the entire system before installing! Otherwise, a mains
 voltage and/or external voltage may still be present even though the control voltage
 is switched off!
- Take note of the maximum loads on all connections!



CAUTION

Electromagnetic interference can cause malfunctions!

Keep the control lines far away from the load lines!



• The ECA970 must be earthed with the appropriate 6.3mm connecting link.

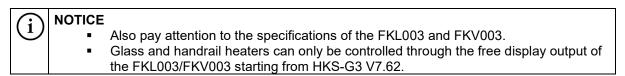
Provide sufficient ventilation and heat dissipation for the heat sink!

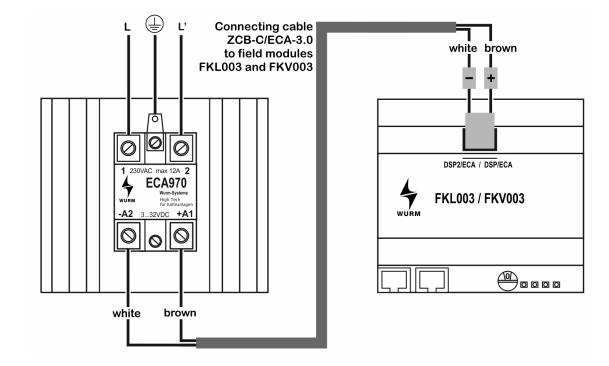
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Connection of the ECA970 to FKL003, FKV003

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.





Technical data

Control input	332V=	
Input resistance	1500Ω ±10%	
Switch output	230V~, min. 50mA, max.12A, zero-point switching	
Ambient temperature	Operation: 0+55°C, storage: -25+70°C	
Dimensions	(WxHxD) 106 x 90 x 53mm	
Fastening	Top-hat rail TH 35-15 or TH 35-7.5 (DIN EN 60715)	
Weight	About 550g	
Electrical connection	4 screw terminals 2.5mm ² , spade lugs terminals or ring terminal, 6.3mm mounting link for grounding connection	
Conformities	- 2014/35/EU (Low Voltage Directive)	
EAC conformity	- TR CU 004/2011 - TR CU 020/2011	
	RoHS II	