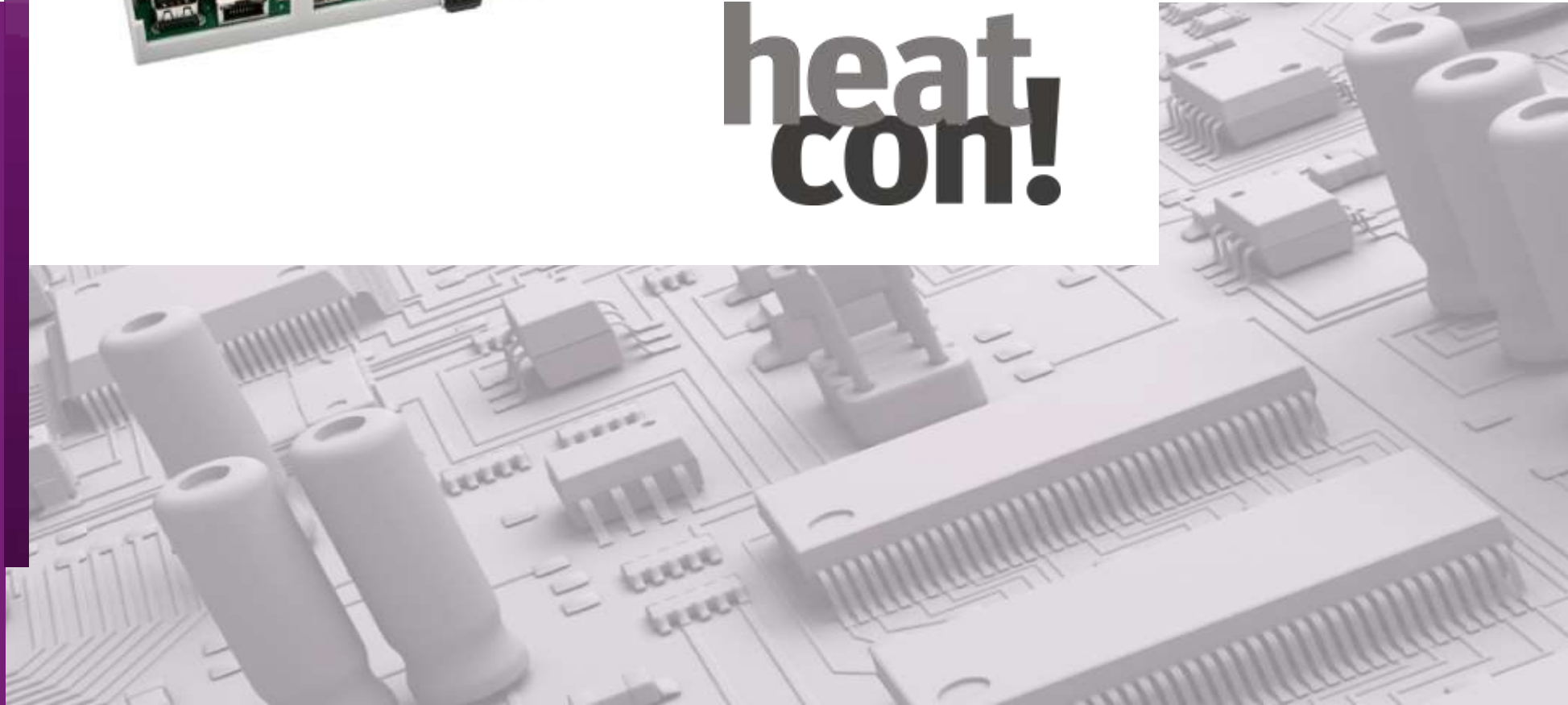


heatcon!
Input/Output
assignment

EbV
elektronik



**heat
con!**



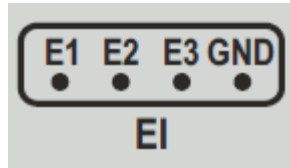
heatcon! Inputs

Inputs are at the heatcon! EC are marked with "E" and provided with a consecutive number.
E1 to E17

The inputs are divided into 4 groups according to the possible field of application:

- EI → Input pulse
- EFI → Input sensor pulse
- EFI10V → input sensor pulse 10V
- EO Input optocoupler (230V)

heatcon! Inputs



EI (Input pulse)

Execution as:

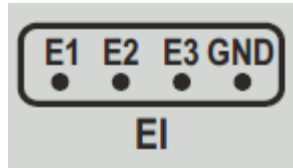
- **Digital Off/On**

→ **Input open = OFF**
→ **Input closed = ON**

Usage:

- **Request contact to heating buffer**
 - **Blocking contact EEZ**
 - **Fault message input**

heatcon! Inputs



EI (Input pulse)

Execution as:

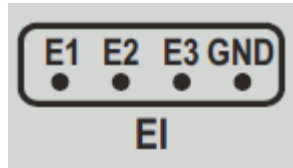
- Digital Off/On
- **Digital Open/Close**

→ Input open = OPEN
→ Input closed = CLOSE

Usage

e.g. feedback of a valve

heatcon! Inputs



EI (Input pulse)

Execution as:

- Digital Off/On
- Digital Open/Close
- **Digital pulse**

→ **Input Open = OFF**

→ **Input closed = On**

Usage:

Pulses from a flow meter for heat balancing

heatcon! Inputs



EFI (Input Sensor / pulse)

Execution as:

- KTY2K

→ Sensor input for KTY 10-6/81-210 -Sensors
KVT20/VF202(4)/AF200

heatcon! Inputs



EFI (Input Sensor / pulse)

Execution as:

- KTY2K
- PT1000

→ Sensor input for PT1000 -Sensors

heatcon! Inputs



EFI (Input Sensor / pulse)

Execution as:

- KTY2K
- PT1000
- **Digital Off/On**
- **Digital Open/Close**
- **Digital pulse**

- **Function as Input EI**
- **Function as Input EI**
- **Function as Input EI**

heatcon! Inputs



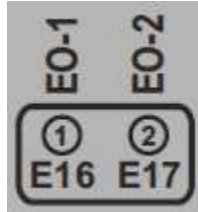
EFI10V (Input Sensor / pulse / 0-10V)

Execution as:

- KTY2K
- PT1000
- Digital Off/On
- Digital Open/Close
- Digital pulse
- **Voltage in setpoint temperature**

This input function is used for external setpoint connection and can be used for heating circuits, hot water and heating buffer.

heatcon! Inputs



EO (Input optocoupler 230V)

Usage:

- Operating hours counter (FC)
- Request contact to heating buffer
 - Blocking contact GEN
 - Fault message input

heatcon! Outputs

Outputs are on heatcon! EC are marked with "A" and assigned a consecutive number.
A1 to A15

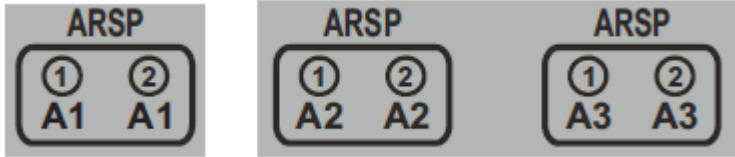
The outputs are divided into 3 groups according to the possible field of application:

ARSP → Output relay closer contact potential free

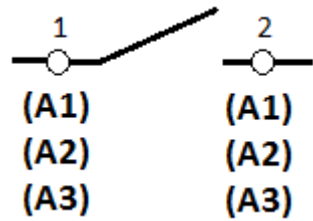
ARS → Output relay closer

A10VP → Output 0-10V /PWM

heatcon! Outputs



ARSP (Output relay closer contact potential free)



As these relay outputs are designed potential-free, the connections are 2-pole.

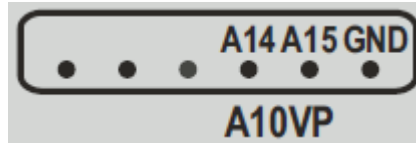
heatcon! Outputs



ARS (Output relay closer)

These outputs are not potential-free.
If the relay output is switched,
a 230V/50-60Hz control signal is output.

heatcon! Outputs



A10VP (Output 0-10V PWM)

**These outputs are used to control the
of an GEN or a pump
via 0-10V or PWM signal.**

heatcon! GEN 1 = 1-stage

Terminal designation / Function		heatcon EC 13xx																																				
		Output														Input																						
		Relays+Triacs Alternatives													0-10V/ PWM	EI			Sensor+0-10V									OK										
Off		A1: ARSP-BR1	A2: ARSP-BR2 AUF	A3: ARSP-BR2 ZU	A4: ARS-SLP	A5: ARS-HK1 P	A6: ARS-HK1 AUF	A7: ARS-HK1 ZU	A8: ARS-HK2 P	A9: ARS- HK2 AUF	A10: ARS-HK2 ZU	A11: ARS-HK3 P	A12: ARS-DIF1 P	A13: ARS-DIF2 P	A14: A10V	A15: A10V	WEZ (GEN) Bus A/B	E1: EI	E2: EI	E3: EI	E4: EFI-AF	E5: EFI-WF	E6: EFI-SF	E7: EFI-VF1	E8: EFI-VF2	E9: EFI-DIF1 VF	E10: EFI-DIF1 PF	E11: EFI-DIF2 VF	E12: EFI-DIF2 PF	E13: EFI10V	E14: EFI10V	E15: EFI10V	E16: EO	E17: EO				
GEN 1	1-stage	O	F																			F																
GEN 2	1-stage	O		F																																		
	Automat (Bus)	O															F	F																				
	0-10V (Setpoint)	O														F																						
	Release contact	O		F																																		
	Modulation 0-10V (PWM)	O		F												F																						

heatcon! GEN 1 = 2-stage

Terminal designation / Function		heatcon EC 13xx																																		
		Output														Input																				
		Relays+Triacs Alternatives													0-10V/ PWM	WEZ (GEN) Bus A/B	EI			Sensor+0-10V											OK					
Off		A1: ARSP-BR1	A2: ARSP-BR2 AUF	A3: ARSP-BR2 ZU	A4: ARS-SLP	A5: ARS-HK1 P	A6: ARS-HK1 AUF	A7: ARS-HK1 ZU	A8: ARS-HK2 P	A9: ARS- HK2 AUF	A10: ARS-HK2 ZU	A11: ARS-HK3 P	A12: ARS-DIF1 P	A13: ARS-DIF2 P	A14: A10V	A15: A10V		E1: EI	E2: EI	E3: EI	E4: EFI-AF	E5: EFI-WF	E6: EFI-SF	E7: EFI-VF1	E8: EFI-VF2	E9: EFI-DIF1 VF	E10: EFI-DIF1 PF	E11: EFI-DIF2 VF	E12: EFI-DIF2 PF	E13: EFI10V	E14: EFI10V	E15: EFI10V	E16: EO	E17: EO		
GEN 1	2-stage	O	F	F	F																															
GEN 2	Automat (Bus)	O															F	F																		
	0-10V (Setpoint)	O													F																					

heatcon! GEN 1 = Modulation on/off

Terminal designation / Function		heatcon EC 13xx																																
		Output															0-10V/ PWM	WEZ (GEN) Bus A/B	Input															
		Relays+Triacs Alternatives																	EI			Sensor+0-10V							OK					
Off		A1: ARSP-BR1	A2: ARSP-BR2 AUF	A3: ARSP-BR2 ZU	A4: ARS-SLP	A5: ARS-HK1 P	A6: ARS-HK1 AUF	A7: ARS-HK1 ZU	A8: ARS-HK2 P	A9: ARS-HK2 AUF	A10: ARS-HK2 ZU	A11: ARS-HK3 P	A12: ARS-DIF1 P	A13: ARS-DIF2 P	A14: A10V	A15: A10V	E1: EI	E2: EI	E3: EI	E4: EFI-AF	E5: EFI-WF	E6: EFI-SF	E7: EFI-VF1	E8: EFI-VF2	E9: EFI-DIF1 VF	E10: EFI-DIF1 PF	E11: EFI-DIF2 VF	E12: EFI-DIF2 PF	E13: EFI10V	E14: EFI10V	E15: EFI10V	E16: EO	E17: EO	
GEN 1	Modulation on/off	O	F	F	F																F													
GEN 2	Automat (Bus)	O														F	F																	
	0-10V (Setpoint)	O													F																			

heatcon! GEN1 = OT (Bus)

Terminal designation / Function		heatcon EC 13xx																																					
		Output														Input																							
		Relays+Triacs Alternatives													0-10V/ PWM	EI			Sensor+0-10V										OK										
Off		A1: ARSP-BR1	A2: ARSP-BR2 AUF	A3: ARSP-BR2 ZU	A4: ARS-SLP	A5: ARS-HK1 P	A6: ARS-HK1 AUF	A7: ARS-HK1 ZU	A8: ARS-HK2 P	A9: ARS-HK2 AUF	A10: ARS-HK2 ZU	A11: ARS-HK3 P	A12: ARS-DIF1 P	A13: ARS-DIF2 P	A14: A10V	A15: A10V	WEZ (GEN) Bus A/B	E1: EI	E2: EI	E3: EI	E4: EFI-AF	E5: EFI-WF	E6: EFI-SF	E7: EFI-VF1	E8: EFI-VF2	E9: EFI-DIF1 VF	E10: EFI-DIF1 PF	E11: EFI-DIF2 VF	E12: EFI-DIF2 PF	E13: EFI10V	E14: EFI10V	E15: EFI10V	E16: EO	E17: EO					
GEN 1	Automat (Bus)	O															F	F																					
GEN 2	1-stage	O	F																																				
	0-10V (Setpoint)	O													F																								
	Release contact	O	F																																				
	Modulation 0-10V (PWM)	O	F												F																								

heatcon! GEN 1 = 0-10V (Setpoint)

Terminal designation / Function		heatcon EC 13xx																																	
		Output												WEZ (GEN) Bus A/B	Input																				
		Relays+Triacs Alternatives											0-10V/ PWM		EI			Sensor+0-10V				OK													
Off		A1: ARSP-BR1	A2: ARSP-BR2 AUF	A3: ARSP-BR2 ZU	A4: ARS-SLP	A5: ARS-HK1 P	A6: ARS-HK1 AUF	A7: ARS-HK1 ZU	A8: ARS-HK2 P	A9: ARS- HK2 AUF	A10: ARS-HK2 ZU	A11: ARS-HK3 P	A12: ARS-DIF1 P	A13: ARS-DIF2 P	A14: A10V	A15: A10V	E1: EI	E2: EI	E3: EI	E4: EFI-AF	E5: EFI-WF	E6: EFI-SF	E7: EFI-VF1	E8: EFI-VF2	E9: EFI-DIF1 VF	E10: EFI-DIF1 PF	E11: EFI-DIF2 VF	E12: EFI-DIF2 PF	E13: EFI10V	E14: EFI10V	E15: EFI10V	E16: EO	E17: EO		
GEN 1	0-10V (Setpoint)	O													F																				
GEN 2	1-stage	O	F																										F						
	Automat (Bus)	O															F	F																	
	0-10V (Setpoint)	O													F																				
	Release contact	O	F																																
	Modulation 0-10V (PWM)	O	F												F													F							

heatcon! GEN 1 = Release contact

Terminal designation / Function		heatcon EC 13xx																																						
		Output															WEZ (GEN) Bus A/B	Input																						
		Relays+Triacs Alternatives										0-10V/ PWM						EI		Sensor+0-10V			OK																	
	Off	A1: ARSP-BR1	A2: ARSP-BR2 AUF	A3: ARSP-BR2 ZU	A4: ARS-SLP	A5: ARS-HK1 P	A6: ARS-HK1 AUF	A7: ARS-HK1 ZU	A8: ARS-HK2 P	A9: ARS- HK2 AUF	A10: ARS-HK2 ZU	A11: ARS-HK3 P	A12: ARS-DIF1 P	A13: ARS-DIF2 P	A14: A10V	A15: A10V	E1: EI	E2: EI	E3: EI	E4: EFI-AF	E5: EFI-WF	E6: EFI-SF	E7: EFI-VF1	E8: EFI-VF2	E9: EFI-DIF1 VF	E10: EFI-DIF1 PF	E11: EFI-DIF2 VF	E12: EFI-DIF2 PF	E13: EFI10V	E14: EFI10V	E15: EFI10V	E16: EO	E17: EO							
GEN 1	Release contact	O	F																																					
GEN 2	1-stage	O		F																																				
	Automat (Bus)	O															F	F																						
	0-10V (Setpoint)	O														F																								
	Release contact	O		F																																				
	Modulation 0-10V (PWM)	O		F												F																								

heatcon! GEN1 = Modulation 0-10V (PWM)

Terminal designation / Function		heatcon EC 13xx																																		
		Output															Input																			
		Relays+Triacs Alternatives														0-10V/PWM	EI			Sensor+0-10V						OK										
Off		A1: ARSP-BR1	A2: ARSP-BR2 AUF	A3: ARSP-BR2 ZU	A4: ARS-SLP	A5: ARS-HK1 P	A6: ARS-HK1 AUF	A7: ARS-HK1 ZU	A8: ARS-HK2 P	A9: ARS-HK2 AUF	A10: ARS-HK2 ZU	A11: ARS-HK3 P	A12: ARS-DIF1 P	A13: ARS-DIF2 P	A14: A10V	A15: A10V	WEZ (GEN) Bus A/B	E1: EI	E2: EI	E3: EI	E4: EFI-AF	E5: EFI-WF	E6: EFI-SF	E7: EFI-VF1	E8: EFI-VF2	E9: EFI-DIF1 VF	E10: EFI-DIF1 PF	E11: EFI-DIF2 VF	E12: EFI-DIF2 PF	E13: EFI10V	E14: EFI10V	E15: EFI10V	E16: EO	E17: EO		
GEN 1	Modulation 0-10V (PWM)	O	F												F								F													
GEN 2	1-stage	O		F																											F					
	Automat (Bus)	O															F	F																		
	0-10V (Setpoint)	O													F																					
	Release contact	O		F																																
	Modulation 0-10V (PWM)	O	F												F														F							

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con!**

