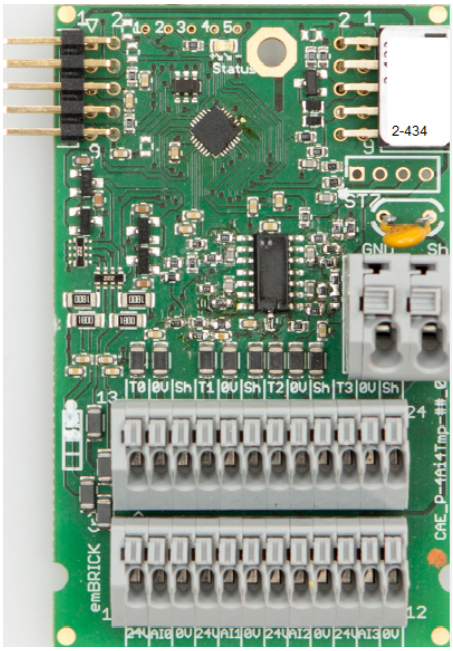
CAE_G-4Ai4Tmp-04



1.1 Description

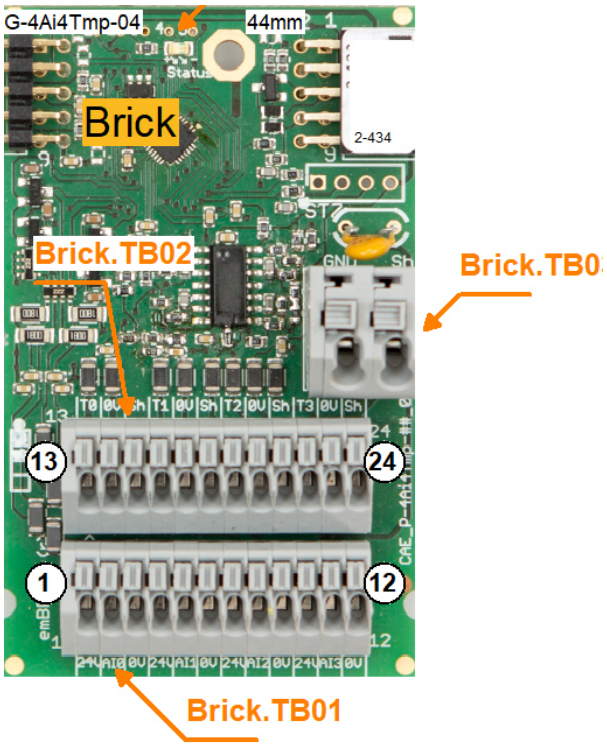
ID: 2-434
Order No.: CAE_G-4Ai4Tmp-04 (-p)
Terminal: push-in (for < 0.5mmÂ²)
Size: 4 eU (44mm x 72mm)
BBFCP: 1-1-1
Weight: 30g

The module includes four voltage (0..30V) inputs and four temperature inputs for a KTY2k with a range from -10Â°C up to 50Â°C.

For each analog input a terminal with separate ground and +24V (from the bus for sensor supply) is available. Aditionally for the temperature inputs a separate ground for a shield is supported.

Note:
The module provides a separate analog ground. The shield can be connected to the bus ground via connecting the two terminals (if sufficient) or can be connected to the earth in your system (recommended).

1.2 Connectors and Indication-/Operation-Elements



1.2.1 Terminal block (TB)

The following Illustration the technical details for Terminal blocks are listed. The location of a specific block is documented with the ID (left coloumn) in the preavious Illustrations.

ID	Model	Model / Series	Grid	Num. of term.	connection	elec. usage
Brick.TB01	Cage Terminal	WAGO250	2.5mm	12	up to 0.5mm² or 0,8mm	signal level
Brick.TB02	Cage Terminal	WAGO250	2.5mm	12	up to 0.5mm² or 0,8mm	signal level
Brick.TB03	Cage Terminal	WAGO250	2.5mm	2	up to 1.5mm²	Ground

1.2.2 Terminal assignment

Here the assignment of individual terminals and there affilation to terminal blocks (Te block), terminal numbers (Te no.) and short description (T.desc.) aswell as there electrical function and usage are explained.
The associated mechanical and electrical properties are stated with the specific terminal block in the previous chapter. The position of a terminal is dedicated through the "Te block" and the actual terminal number (Te no.) or the therminal description (T.descr.) in the previous Illustration respectivly.
In the coloumn "usage" the technical-/ device-functional use is listed.

Te block	Te no.	T. descr.	Function	Usage

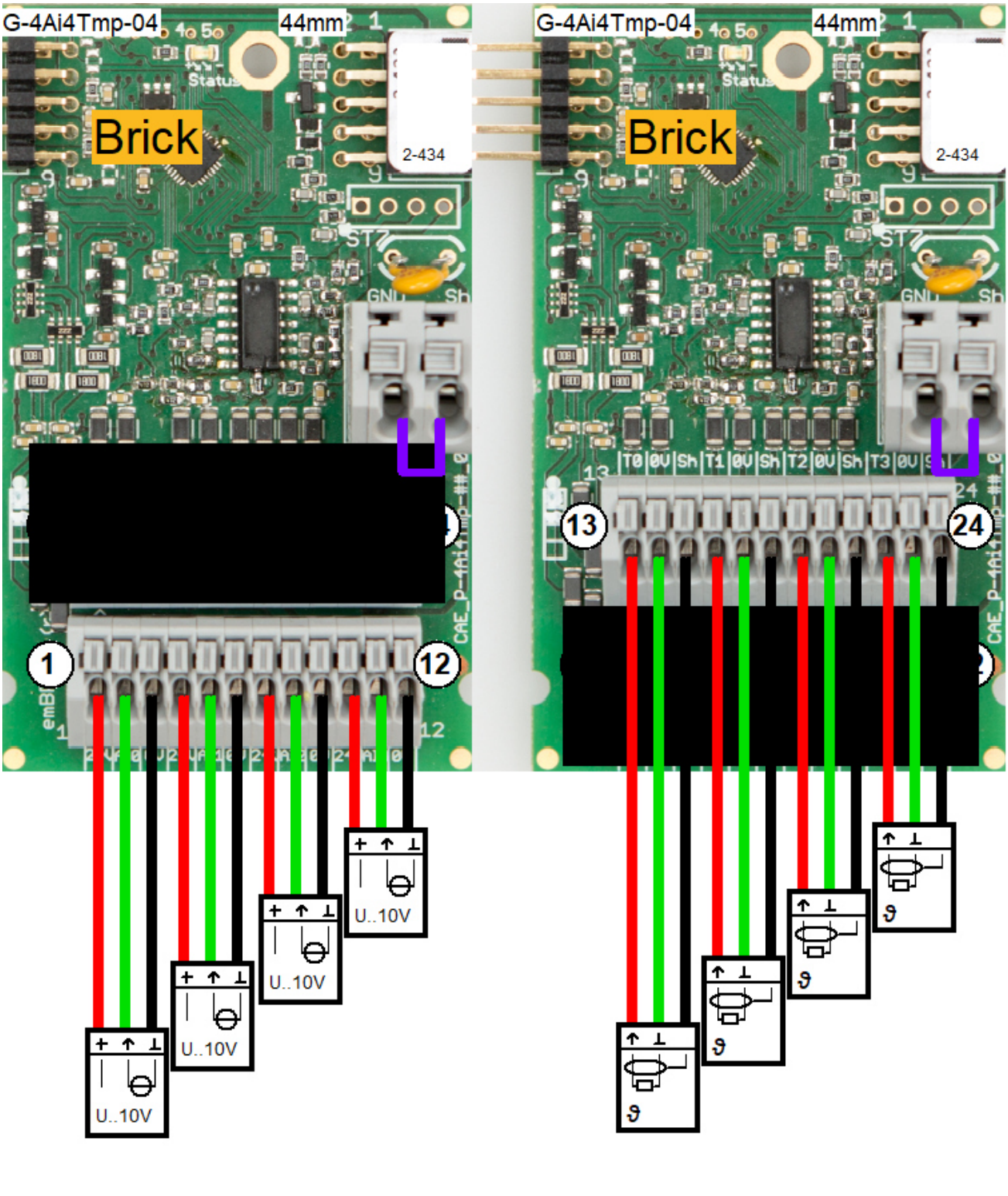
Brick.TB00	0	24V	Sensor supply +24V	Ai1
Brick.TB00	1	IN	Input	Ai1
Brick.TB00	2	0V	Ground	Ai1
Brick.TB00	3	24V	Sensor supply +24V	Ai2
Brick.TB00	4	IN	Input	Ai2
Brick.TB00	5	0V	Ground	Ai2
Brick.TB00	6	24V	Sensor supply +24V	Ai3
Brick.TB00	7	IN	Input	Ai3
Brick.TB00	8	0V	Ground	Ai3
Brick.TB00	9	24V	Sensor supply +24V	Ai4
Brick.TB00	10	IN	Input	Ai4
Brick.TB00	11	0V	Ground	Ai4
Brick.TB00	12	Tmp	Input Temperature Sensor	Temp1
Brick.TB00	13	0V	Ground Sensor	Temp1
Brick.TB00	14	Tmp	Input Temperature Sensor	Temp2
Brick.TB00	15	0V	Ground Sensor	Temp2
Brick.TB00	16	Tmp	Input Temperature Sensor	Temp3
Brick.TB00	17	0V	Ground Sensor	Temp3
Brick.TB00	18	Tmp	Input Temperature Sensor	Temp4
Brick.TB00	19	0V	Ground Sensor	Temp4

1.2.3 LED Indications

ID	Type	Specification	Type / Usage
Brick.StateLED	SMD-LED	yellow	communicationstate Brick

1.3 Input-/Output Scheme

The following diagram shows the adaption of the control unit. To avoid overlapping, some wires are displayed interrupted and dashed.



1.4 Technical Data

1.4.1 Analog Inputs

The control unit has the following analogue inputs / measuring inputs:

Identifier	Ai1
Type	Voltage Input
Range	0 ... 30V, 2/3-wire
Input/Load Resistor	>125k
Resolution	
Accuracy	0.5%
Linearity	0.2%
Filter	100Hz
Linearization	
Model / Series	
Remark	Sensor power supply (24V) is provided; note overall capacity

Identifier	Ai2
Type	Voltage Input
Range	0 ... 30V, 2/3-wire
Input/Load Resistor	>125k
Resolution	
Accuracy	0.5%
Linearity	0.2%
Filter	100Hz
Linearization	
Model / Series	
Remark	Sensor power supply (24V) is provided; note overall capacity

Identifier	Ai3
Type	Voltage Input
Range	0 ... 30V, 2/3-wire
Input/Load Resistor	>125k
Resolution	
Accuracy	0.5%
Linearity	0.2%
Filter	100Hz
Linearization	
Model / Series	
Remark	Sensor power supply (24V) is provided; note overall capacity

Identifier	Ai4
Type	Voltage Input
Range	0 ... 30V, 2/3-wire
Input/Load Resistor	>125k
Resolution	
Accuracy	0.5%
Linearity	0.2%
Filter	100Hz

Linearization	
Model / Series	
Remark	Sensor power supply (24V) is provided; note overall capacity

Identifier	Temp1
Type	Temperature input, KTY81-2k, -10...50°C
Range	-10 ... 50°C
Input/Load Resistor	-
Resolution	0.1%
Accuracy	2%
Linearity	1%
Filter	Tau = 1s
Linearization	-
Model / Series	KTY81-2k
Remark	

Identifier	Temp2
Type	Temperature input, KTY81-2k, -10...50°C
Range	-10 ... 50°C
Input/Load Resistor	-
Resolution	0.1%
Accuracy	2%
Linearity	1%
Filter	Tau = 1s
Linearization	-
Model / Series	KTY81-2k
Remark	

Identifier	Temp3
Type	Temperature input, KTY81-2k, -10...50°C
Range	-10 ... 50°C
Input/Load Resistor	-
Resolution	0.1%
Accuracy	2%
Linearity	1%
Filter	Tau = 1s
Linearization	-
Model / Series	KTY81-2k
Remark	

Identifier	Temp4
Type	Temperature input, KTY81-2k, -10...50°C
Range	-10 ... 50°C
Input/Load Resistor	-
Resolution	0.1%
Accuracy	2%
Linearity	1%
Filter	Tau = 1s
Linearization	-

Model / Series	KTY81-2k
Remark	

1.4.2 User Notes

• Blinking behavior StateLED:
Each Morse code is 3 seconds long!
not initialized = flashing continuously at approx. 5Hz
no communication = short-long-short
too little communication = short-short-short
disturbed communication = short-long-long
OK = continuous flashing at approx. 1Hz (0.6-1.5Hz)

1.5 History

On the following page you will find a list of changes that have been made to the product.

1.5.1 History

Date	Entry scope (HW, SWappl, SWapi, Release)	Entry type (Enhancement, Improvement, Bugfix, Release)	Version	Status (development, implemented, tested)	Responsible	Reason for the modification	Items of the modification	Impact for (end-)customer	Comment	location in model/source
xxxx-xx-xx		Release	0.99	tested	NSt					

For questions please contact:

emBrick GmbH	Alfred-Nobel-Straße 2 D-55411 Bingen am Rhein	+49 (0)6721-48035-70	https://www.embrick.de/ https://www.embrick.de/shop/ support@embrick.de