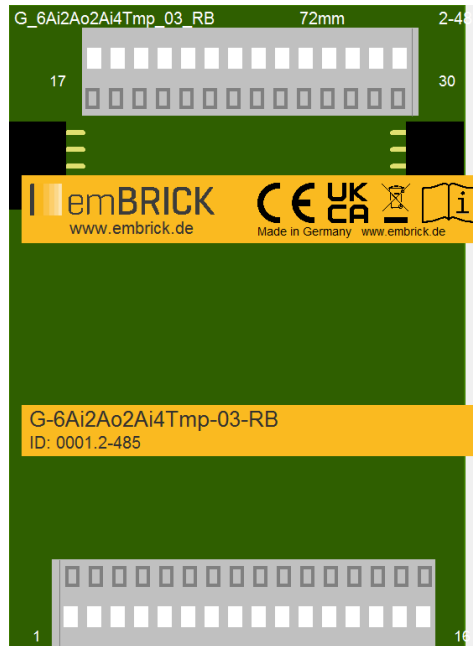


CAE_G-6Ai2Ao2Ai4Tmp-03-RB



1.1 Description

ID: 2-485

Order No.: CAE_6Ai2Ao2Ai4Tmp-03 RB

Terminal: push-in (for $\leq 1.5\text{mm}^2$)

Size: 72 x 90 (96) mm

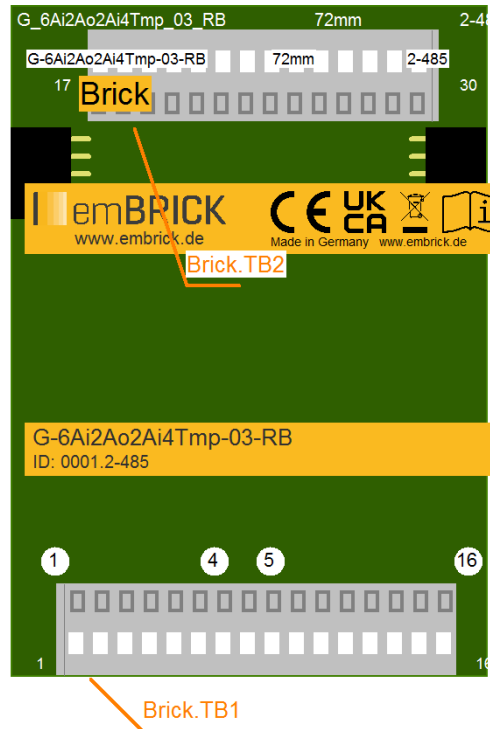
BBFCP: 2-1-1

Weight: 150g

This brick offers an I/O-mix of 6 analog current inputs, 2 current (0..20mA) outputs. Moreover 2 analog voltage inputs and 4 temperature inputs.

It is enclosed in a rail box.

1.2 Connectors and Indication-/Operation-Elements



1.2.1 Connectors (X)

Hereinafter the necessary connections, connectors and their specification for operation are listed. The location of a specific connector is documented with the ID (left column) in the previous Illustrations.

| ID | Model | Usage | Num. of term. | Model / Series | connection | elec. usage |
|-----------|--------------|-------------------|---------------|----------------------|-------------------------|-------------|
| Brick.X01 | Flachstecker | ground connection | 1 | 6,3x0,8mm liegend | min. 1,5mm ² | aux. ground |

1.2.2 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 column) in the previous Illustrations.

| ID | Model | Model / Series | Grid | Num. of term. | connection | elec. usage |
|-----------|---------------|----------------|-------|---------------|--------------------------|--------------|
| Brick.TB1 | Cage Terminal | WAGO250 | 3.5mm | 16 | up to 1.5mm ² | signal level |
| Brick.TB2 | Cage Terminal | WAGO250 | 3.5mm | 14 | up to 1.5mm ² | signal level |

1.2.3 Terminal assignment

Here the assignment of individual terminals and their affiliation to terminal blocks (Te block), terminal numbers (Te no.) and short description (T.desc.) as well as their 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 terminal description (T.descr.) in the previous illustration respectively.

In the column "usage" the technical-/ device-functional use is listed.

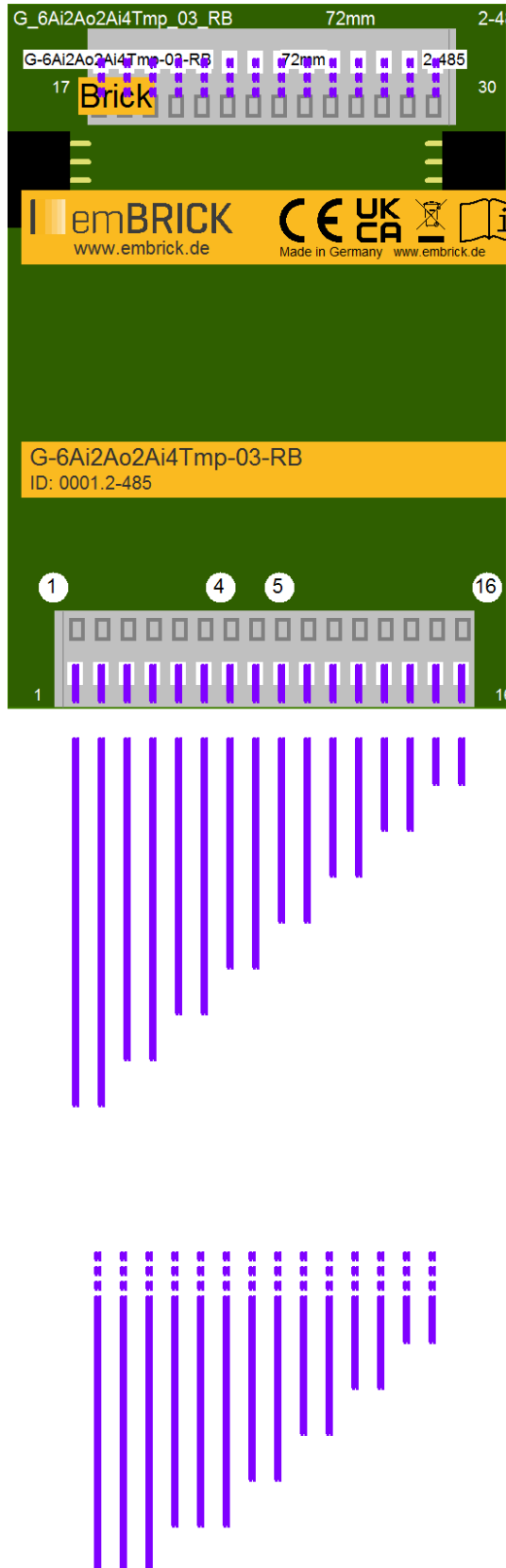
| Te block | Te no. | T. descr. | Function | Usage |
|------------|--------|-----------|--------------------------|-------|
| Brick.TB00 | 0 | 24V | Sensor supply +24V | Ai1 |
| Brick.TB00 | 1 | IN | Input | Ai1 |
| Brick.TB00 | 2 | 0V | Ground | Ai1 |
| Brick.TB00 | 3 | 24V | Sensor supply +24V | Ai2 |
| 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 | 24V | Sensor supply +24V | Ai5 |
| Brick.TB00 | 13 | IN | Input | Ai5 |
| Brick.TB00 | 14 | 0V | Ground | Ai5 |
| Brick.TB00 | 15 | 24V | Sensor supply +24V | Ai6 |
| Brick.TB00 | 16 | IN | Input | Ai6 |
| Brick.TB00 | 17 | 0V | Ground | Ai6 |
| Brick.TB00 | 18 | OUT | Current Output | Ao1 |
| Brick.TB00 | 19 | 0V | Ground | Ao1 |
| Brick.TB00 | 20 | OUT | Current Output | Ao2 |
| Brick.TB00 | 21 | 0V | Ground | Ao2 |
| Brick.TB00 | 22 | 24V | Sensor supply +24V | Ai7 |
| Brick.TB00 | 23 | IN | Input | Ai7 |
| Brick.TB00 | 24 | 0V | Ground | Ai7 |
| Brick.TB00 | 25 | 24V | Sensor supply +24V | Ai8 |
| Brick.TB00 | 26 | IN | Input | Ai8 |
| Brick.TB00 | 27 | 0V | Ground | Ai8 |
| Brick.TB00 | 28 | Tmp | Input Temperature Sensor | Temp1 |
| Brick.TB00 | 29 | 0V | Ground | Temp1 |
| Brick.TB00 | 30 | Tmp | Input Temperature Sensor | Temp2 |
| Brick.TB00 | 31 | 0V | Ground | Temp2 |
| Brick.TB00 | 32 | Tmp | Input Temperature Sensor | Temp3 |
| Brick.TB00 | 33 | 0V | Ground | Temp3 |
| Brick.TB00 | 34 | Tmp | Input Temperature Sensor | Temp4 |
| Brick.TB00 | 35 | 0V | Ground | Temp4 |

1.2.4 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 | Current Input |
| Range | 0 ... 20mA, 2/3-wire |
| Input/Load Resistor | 175 Ohm |
| Resolution | 10Bit |
| Accuracy | 0.5% |
| Linearity | 0.2% |
| Filter | - |
| Linearization | - |
| Model / Series | - |
| Remark | - |

| | |
|---------------------|----------------------|
| Identifier | Ai2 |
| Type | Current Input |
| Range | 0 ... 20mA, 2/3-wire |
| Input/Load Resistor | 175 Ohm |
| Resolution | 10Bit |
| Accuracy | 0.5% |
| Linearity | 0.2% |
| Filter | - |
| Linearization | - |
| Model / Series | - |
| Remark | - |

| | |
|---------------------|----------------------|
| Identifier | Ai3 |
| Type | Current Input |
| Range | 0 ... 20mA, 2/3-wire |
| Input/Load Resistor | 175 Ohm |
| Resolution | 10Bit |
| Accuracy | 0.5% |
| Linearity | 0.2% |
| Filter | - |
| Linearization | - |
| Model / Series | - |
| Remark | - |

| | |
|---------------------|----------------------|
| Identifier | Ai4 |
| Type | Current Input |
| Range | 0 ... 20mA, 2/3-wire |
| Input/Load Resistor | 175 Ohm |
| Resolution | 10Bit |

| | |
|----------------|------|
| Accuracy | 0.5% |
| Linearity | 0.2% |
| Filter | - |
| Linearization | - |
| Model / Series | - |
| Remark | - |

| | |
|---------------------|----------------------|
| Identifier | Ai5 |
| Type | Current Input |
| Range | 0 ... 20mA, 2/3-wire |
| Input/Load Resistor | 175 Ohm |
| Resolution | 10Bit |
| Accuracy | 0.5% |
| Linearity | 0.2% |
| Filter | - |
| Linearization | - |
| Model / Series | - |
| Remark | - |

| | |
|---------------------|----------------------|
| Identifier | Ai6 |
| Type | Current Input |
| Range | 0 ... 20mA, 2/3-wire |
| Input/Load Resistor | 175 Ohm |
| Resolution | 10Bit |
| Accuracy | 0.5% |
| Linearity | 0.2% |
| Filter | - |
| Linearization | - |
| Model / Series | - |
| Remark | - |

| | |
|---------------------|--|
| Identifier | Ai7 |
| Type | Voltage Input |
| Range | 0 ... 40V, 2/3-wire |
| Input/Load Resistor | >50k |
| Resolution | |
| Accuracy | 0.5% |
| Linearity | 0.2% |
| Filter | 100Hz |
| Linearization | |
| Model / Series | |
| Remark | Sensor power supply (24V) is provided; note overall capacity |

| | |
|------------|---------------------|
| Identifier | Ai8 |
| Type | Voltage Input |
| Range | 0 ... 40V, 2/3-wire |

| | |
|---------------------|--|
| Input/Load Resistor | >50k |
| 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 | PT1000, -50...350°C |
| Range | -50 ... 350°C |
| Input/Load Resistor | - |
| Resolution | 0.1% |
| Accuracy | 2% |
| Linearity | 1% |
| Filter | Tau = 1s |
| Linearization | - |
| Model / Series | PT1000 |
| Remark | |

| | |
|---------------------|---------------------|
| Identifier | Temp2 |
| Type | PT1000, -50...350°C |
| Range | -50 ... 350°C |
| Input/Load Resistor | - |
| Resolution | 0.1% |
| Accuracy | 2% |
| Linearity | 1% |
| Filter | Tau = 1s |
| Linearization | - |
| Model / Series | PT1000 |
| Remark | |

| | |
|---------------------|---------------------|
| Identifier | Temp3 |
| Type | PT1000, -50...350°C |
| Range | -50 ... 350°C |
| Input/Load Resistor | - |
| Resolution | 0.1% |
| Accuracy | 2% |
| Linearity | 1% |
| Filter | Tau = 1s |
| Linearization | - |
| Model / Series | PT1000 |
| Remark | |

| | |
|------------|-------|
| Identifier | Temp4 |
|------------|-------|

| | |
|---------------------|---------------------|
| Type | PT1000, -50...350°C |
| Range | -50 ... 350°C |
| Input/Load Resistor | - |
| Resolution | 0.1% |
| Accuracy | 2% |
| Linearity | 1% |
| Filter | Tau = 1s |
| Linearization | - |
| Model / Series | PT1000 |
| Remark | |

1.4.2 Analog Outputs

The control unit has the following analog outputs:

| | |
|--------------|---|
| Identifier | Ao1 |
| Type | Current Output |
| Range | 0 ... 20mA |
| max. Voltage | $V_o < 12V$ |
| max. Current | 25mA |
| Filter | 1st order, $f_{cut\ off} = \text{approx. } 2Hz$ |
| Component | - |
| Remark | Load Resistor 0...600 Ohm |

| | |
|--------------|---|
| Identifier | Ao2 |
| Type | Current Output |
| Range | 0 ... 20mA |
| max. Voltage | $V_o < 12V$ |
| max. Current | 25mA |
| Filter | 1st order, $f_{cut\ off} = \text{approx. } 2Hz$ |
| Component | - |
| Remark | Load Resistor 0...600 Ohm |

1.4.3 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:

| | | | |
|--------------|--|----------------------|---|
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|--------------|--|----------------------|---|