



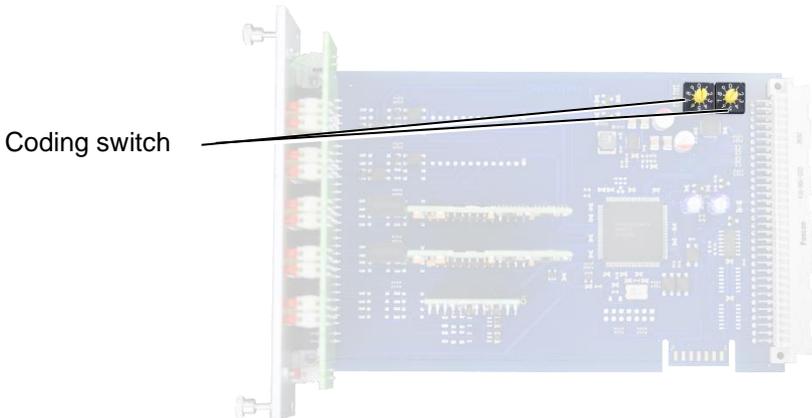
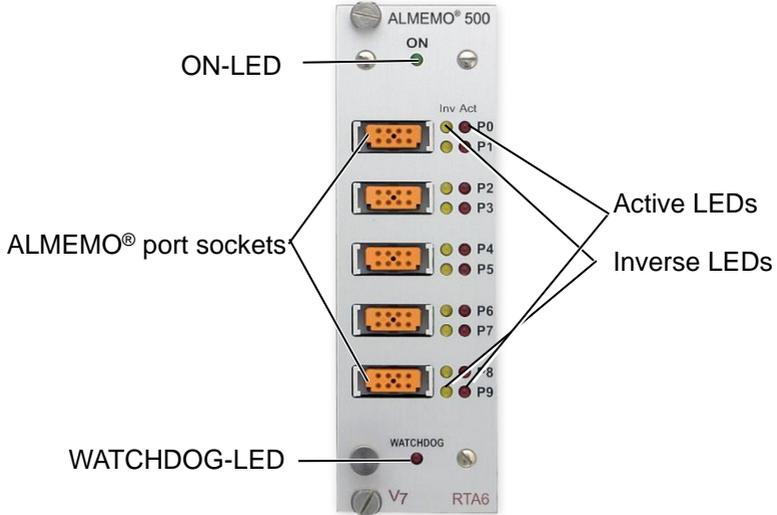
Supplementary Instruction Manual

ALMEMO[®] 500

RTA6 Relay/Trigger/Analog Slide-in Module

V7 technology
English
V1.1
15.11.2021

1 Overall Illustration of the RTA6



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3 Explanation of Symbols



Safety note



Requirement



Request



Notice



Result



Reference to the legend of the overall illustration of the RTA6 (page 2)

Back Text displayed within a software

4 Product

4.1 Function of the Relay/Trigger/Analog Slide-in Module

The relay/trigger/analog slide-in module ES 500 RTA6 is a universal trigger output interface for the data logger ALMEMO® 500, featuring up to 10 input /output interfaces (standard 4 solid-state relays (normally open contact) and 2 trigger inputs, optionally featuring further relays and/or analog outputs.

On request: up to 10 solid-state relays or 10 galvanically isolated analog outputs).

Options

Option	Description	Article number
2 additional relays (normally open (NO) contact)	Per normally open (NO) contact pair	OA500SH2
2 additional normally closed (NC) contacts	(result in 2 change over (CO) contacts in combination with the normally open (NO) contacts)	OA500OH2
2 analog outputs (common ground)	Galvanically isolated, 10 V or 20 mA (programmable)	OA500R02

Possible combinations:

- 2 x OA500SH2 (+ 4 relays)
- 1 x OA500SH2 (+ 2 relays) + 1 x OA500R02 (+ 2 analog outputs)
- 2 x OA500R02 (+ 4 analog outputs)

Port addresses

All 10 input / output interfaces of every module can be individually selected as ports P0 to P9. The ports can be set via the ALMEMO® 500 app or in Transparent Mode via the data logger interface.

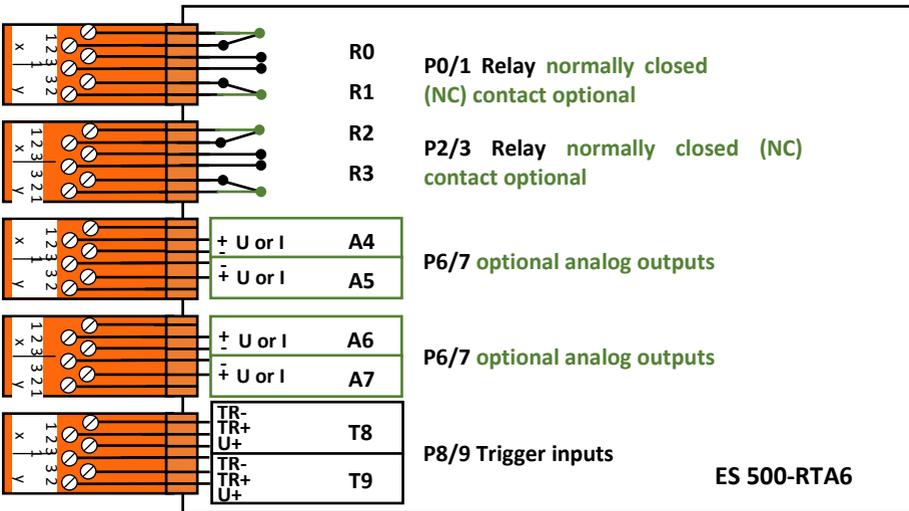
Power supply

The power for the RTA6 slide-in module will be supplied by the ALMEMO® 500 data logger.

4.2 Requirements for the Use of the RTA6 Slide-in Module

- ☞ The RTA 6 slide-in module can be used starting with software version 1.2.4 of the CPU card.
- ☞ The measuring circuit boards must feature the revision number R3 or higher. The revision number of the measuring circuit boards will be displayed in the status display in the menu 3) Firmware (on the running data logger press the right navigation key until the menu 3) Firmware will be displayed. The revision number is listed behind the measuring circuit board number (e.g.G00 R3)).
- ☞ To be able to adjust the settings of the RTA6 slide-in module with the ALMEMO® 500 app, the software version of the app needs to be V1.5.9 or higher.

4.3 Connections for Relay, Trigger, and Analog outputs



By default, the ports P0/1 and P2/3 are equipped with 4 solid-state relays normally open (NO) contact (optionally change over (CO) contact) and port P8/9 is equipped with 2 trigger inputs. The ports P4/5 and P6/7 can optionally be equipped with analog outputs or with further solid-state relays.

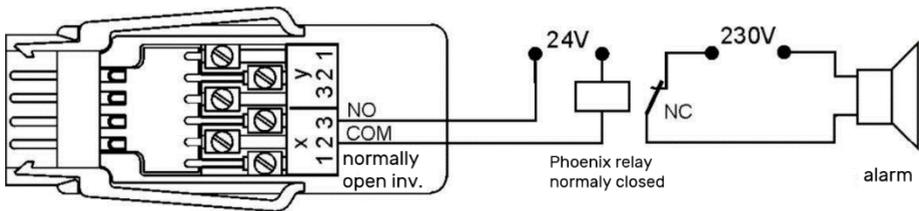
4.3.1 Relays

The output relays can directly be addressed via the data logger in case of an alarm or via interface commands. The function of every relay can be configured arbitrarily. The assignment of the limit value to the relay is programmable in the sensor via the data logger.

By default, a short acoustic alarm will sound whenever a relay is activated. Using inversion, the relay control can be set in such ways that the relays will normally pull in and in case of alarm or power failure the relays will drop out.

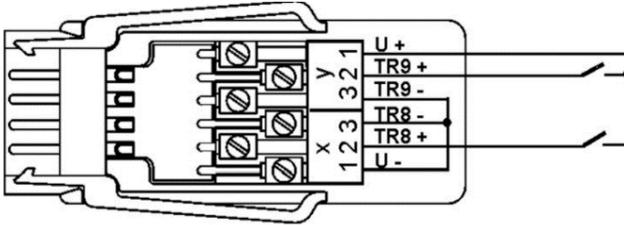
In the following cases it is suggested to add a mains voltage /change over (CO) contact relay (e.g. Phoenix PLC-RSC-24DC/21, 250V 6A):

- In case the current or voltage load is higher than 50 V, 0.5 A,
- For isolation purposes of the voltage side,
- For implementation purposes of an alarm in case of failure of the control side (see image below)



4.3.2 Trigger inputs

The trigger inputs P8 and P9 can be addressed via an optocoupler with a voltage level of 4 V to 30 V. In case potential-free switching contacts are used, the optocouplers must be wired-up according to the supply U+ and U- (see image below). The trigger functions (starting or stopping a measurement) can be edge-triggered or level-triggered . (see chapter 5.5.3 Set the Trigger Port Assignment).

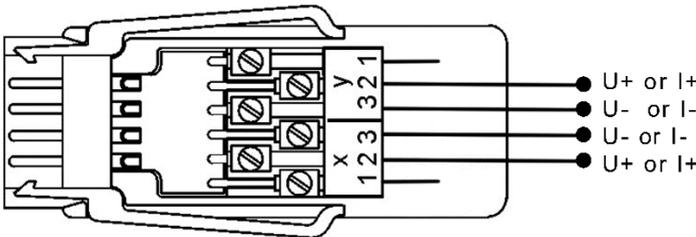


4.3.3 Analog outputs

Optionally a slide-in module can also be equipped with galvanically isolated analog outputs that can feature the following signals:

Option	Output signal	Increase
OA 500-R02	0.000 V to +10.000 V	0.5 mV/digit
	0.000 mA to 20.000 mA	1 µA/digit

The output value normally corresponds to the measured value of a selectable monitoring station. Alternatively it is possible that the analog value is preset as control parameter via the interface (see chapter 5.5.4 Set the Analog Output Port Assignment). The output signal can in any case be programmed as standard output 0-10 V, 0-20 mA, 4-20 mA from arbitrary measuring range sections (see chapter 5.5.4 Set the Analog Output Port Assignment).



5 How to use the RTA6 Slide-in Module

-  In case the RTA6 slide-in module was delivered together with the data logger, the address of the RTA slide-in module is already preset and the RTA slide-in module is plugged into a RTA appropriate slide-in location. In case the RTA6 sot was delivered separately from the data logger (e.g. because it was reordered), the address of the RTA slide-in module must be set (see chapter 5.2 Set the RTA6 Slide-in module Address) before the RTA6 slide-in module can be plugged into the data logger.

5.1 Connection of the Peripherals to the ALMEMO® Clamping Connector

You can plug in ALMEMO® clamping connectors to the ALMEMO® sockets of the RTA6-slide-in module, where previously the relay, trigger, or analog signals were connected.



Never connect voltages higher than 50 V to a relay port.



Never connect voltages higher than 30 V to a trigger port.



Voltage and current outputs are mere output ports. Do not connect any external voltage sources to these ports.

The relay, trigger, or analog signals must be connected to the provided ALMEMO® clamping connector according to the following diagram:

Clamps	Port 0/1 relay	Port 2/3 relay	Port 4/5 analog (opt)	Port 6/7 analog (opt)	Port 8/9 trigger
y1	R1 NC contact (optionally)	R3 NC contact (optionally)			U+
y2	R1 Common	R3 Common	AO5 +	AO7 +	TR9+
y3	R1 NO contact	R3 NO contact	AO5 -	AO7 -	TR9 -
x3	R0 NO contact	R2 NO contact	AO4 -	AO6 -	TR8 -
x2	R0 Common	R2 Common	AO4 +	AO6 +	TR8+
x1	R0 NC contact (optionally)	R2 NC contact (optionally)			U -

NO=Normally Open, NC=Normally Closed

5.2 Set the RTA6 Slide-in Module Address

- In case the RTA6 slide-in module is plugged into the data logger, remove the RTA6 slide-in module from the data logger housing, see chapter 5.7 Remove RTA6 Slide-in module from the Housing of the Data Logger.
 - Turn the coding switch until the slit of the small wheel of the coding switch points to the desired number.
- ☞ The addresses of the individual RTA slide-in modules must be coded in ascending order from 00 to 03. The first RTA slide-in module must have the RTA slide-in module address 00.

Example:
RTA slide-in module
address 01



- ☞ Several RTA6 slide-in modules must not have the same RTA slide-in module address.
- ☞ In the ALMEMO® 500 app, the RTA slide-in module will be named A0 to A3, depending on the RTA slide-in module address 00 to 03.

5.3 Insert the RTA6 Slide-in Module into the Housing of the Data Logger

- ! The data logger must be switched off.
 - ! The data logger must be disconnected from the power supply.
- ☞ For the RTA6 slide-in module use the slide-in location next to the slide-in location of the CPU card and the measuring circuit boards (from the left to the right). If you want to use several RTA6 slide-in modules, insert the RTA6 slide-in modules (RTA6 slide-in module address ascending from left to right) into the slide-in locations of the data logger.
3. Insert the RTA6 slide-in module into the data logger housing.
 4. Fasten the knurled screws of the RTA6 slide-in module.
- The ON-LED lights as soon as the data logger is switched on.

5.4 Plug in the ALMEMO® Clamping Connector

- ! The data logger must be switched off.
- 1. Connect the peripheral devices to the ALMEMO® clamping connector (see chapter 5.1 Connection of the Peripherals to the ALMEMO® clamping connector).
- 2. Plug in the ALMEMO® clamping connector into the ALMEMO® sockets on the RTA6 slide-in module. In doing so pay attention to the port allocation of your RTA6 slide-in module and connect the ALMEMO® clamping connector to the ALMEMO® socket with the appropriate port (relay/trigger/analog output).
- 3. Switch on the data logger (see Instruction Manual ALMEMO® 500).

5.5 Set the Port Assignment

 If you want to set the port assignment via the interface and not via the ALMEMO® 500 app, see supplementary Instruction Manual ALMEMO® 500 Transparent-Mode.

5.5.1 Open Port Settings

1. In the Home screen of the app, tap on the button .
2. Tap on the arrow  in the line Device list.
3. Tap on the arrow  in the line of a measuring circuit board.
4. Tap on the arrow  in the line Output module.
5. Tap on the arrow  in the line of the RTA6 slide-in module , in which you want to change the setting of a port.
6. Tap on the arrow  in the line Port list.
7. Tap on the arrow  in the line of the port you want to set.

5.5.2 Set the Relay Port Assignment

Relays close/open in case a limit value has been under-, respectively overshoot at a specific measuring channel

- 🔑 By using the function Assigned, sourcing channel the relay can be opened or closed as a limit value action of a measuring channel.
 - In the measuring channel, in which the limit value action shall be the closing respectively opening of the relay, set a maximum limit value and/or a minimum limit value (see Instruction Manual ALMEMO® 500).
 - In the same measuring channel in the limit value action relay Max respectively relay Min set the port address of the relay.
 - Follow the steps 1 to 7 in chapter 5.5.1 Open Port Settings.
- 8. Tap on the field next to Variant.
- 9. Tap on Assigned, sourcing channel.
 - In the line Contact the current status of the relay will be displayed.
 - In case the maximum limit value has been overshoot and/or the minimum limit value has been undershot in the selected measuring channel the relay will be closed and the Active LED of the port will light. In case of a sensor break in the selected measuring channel, the relay will be closed as well and the Active LED of the port will light.
- 10. If you wish that the relay shall normally pull in and in case of alarm and power failure the relay shall drop out, tick the checkbox next to Inversion. The Inverse LED of the port will light when the port is inverted.

Relays close/open in case of a sensor break of a specific sensor

- 🔑 By using the function Assigned, sourcing channel the relay can be closed or opened in case of a sensor break, even though no limit values have been set in the sourcing channels.
 - In the measuring channel of the sensor, whose sensor break shall be indicated by closing respectively opening the relay, in the limit value action relay Max or relay Min you need to set the port address of the relay.
 - Follow the steps 1 to 7 in chapter 5.5.1 Open Port Settings.
- 8. Tap on the field next to Variant .

9. Tap on assigned, sourcing channel.
 - In the line Contact the current status of the relay will be displayed.
 - In case of a sensor break in the selected measuring channel, the relay will be closed and the Active LED of the port will light.
10. If you wish that the relay shall normally pull in and in case of alarm and power failure the relay shall drop out, tick the checkbox next to Inversion. The Inverse LED of the port will light when the port is inverted.

Relays close/open in case of alarm within the data logger

- ☞ By using the functionGroup alarm the relay will be closed respectively opened when an alarm is active within the data logger (e.g. limit value overshoot, limit value undershoot, or sensor break).
 - Follow the steps 1 to 7 in chapter 5.5.1 Open Port Settings.
- 8. Tap on the field next to Variant.
- 9. Tap on Group alarm.
 - In the line Contact the current status of the relay will be displayed.
 - In case a limit value has been overshoot, a limit value has been undershoot, or the sensor broke, the relay will be closed and the Active LED of the port lights.
- 10. If you wish that the relay shall normally pull in and in case of alarm and power failure the relay shall drop out, tick the checkbox next to Inversion. The Inverse LED of the port will light when the port is inverted.

Relays close/open in case of limit value overshoot in the data logger

- ☞ By using the function Group alarm Max the relay will be closed in case the limit value Max of an arbitrary measuring channel is being overshoot in the data logger.
 - Follow the steps 1 to 7 in chapter 5.5.1 Open Port Settings.
- 8. Tap on the field next to Variant.
- 9. Tap on Group alarm Max.
 - In the line Contact the current status of the relay is being displayed.

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- In case the limit value Max is being overshoot, the relay will be closed and the Active LED of the port lights.
- 10. If you wish that the relay shall normally pull in and in case of alarm and power failure the relay shall drop out, tick the checkbox next to Inversion. The Inverse LED of the port will light when the port is inverted.

Relays close/open in case of limit value undershot in the data logger



By using the functionGroup alarm Min the relay will be closed in case the limit value Min of an arbitrary measuring channel is being undershot in the data logger.

- Follow the steps 1 to 7 in chapter 5.5.1 Open Port Settings.
- 8. Tap on the field next to Variant.
- 9. Tap on Group alarm Min.
- In the line Contact the current status of the relay is being displayed.
- In case the limit value Min is being undershot, the relay will be closed and the Active LED of the port lights.
- 10. If you wish that the relay shall normally pull in and in case of alarm and power failure the relay shall drop out, tick the checkbox next to Inversion. The Inverse LED of the port will light when the port is inverted.

Open/close the relay manually

- Follow the steps 1 to 7 in chapter 5.5.1 Open Port Settings.
- 8. Tap on the field next to Variant.
- 9. Tap on Controlled.
- Under this setting, the status of the relay is independent of the measuring channels and measured values of the data logger.
- 10. Tap on the field next to Relay ,
 - to check the box in case the relay shall close.
 - to uncheck the box in case the relay shall open.
- In case the box next to Relay is checked, the Active LED of the port lights.
- In the line Contact the current status of the relay will be displayed.

11. If you wish that the relay shall normally pull in and in case of alarm and power failure the relay shall drop out, tick the checkbox next to Inversion. The Inverse LED of the port will light when the port is inverted.

☞ In case you want to close or open the relays manually, the Watchdog function needs to be disabled.

Open/close relay via signal of the device interface

☞ By using the function Controlled the relay will be closed whenever the relay is being controlled via the device interface. The closing/opening is then independent from the measuring channels and the measured values of the data logger.

→ Follow the steps 1 to 7 in chapter 5.5.1 Open Port Settings.

8. Tap on the field next to Variant.

9. Tap on Controlled.

➤ In the line Contact the status of the relay will be displayed.

➤ When the relay port is enabled via the device interface, the Active LED of the port will light.

10. If you wish that the relay shall normally pull in and in case of alarm and power failure the relay shall drop out, tick the checkbox next to Inversion. The Inverse LED of the port will light when the port is inverted.

➤ The control of the relay via the interface is only possible in Transparent Mode (see Supplementary Instruction Manual ALMEMO® 500 Transparent Mode).

☞ To monitor the control of the device interface, see chapter 5.6 Enable or disable the Watchdog Function.

5.5.3 Set the Trigger Port Assignment

→ Follow the steps 1 to 7 in chapter 5.5.1 Open Port Settings.

8. Tap on the field next to Variant.

9. Tap on the function you want to trigger via the trigger cable.

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By using the function Start-Stop the measurement will be started respectively stopped as soon as a signal has been transmitted via the trigger input to the data logger.

By using the function Start-St. level triggered the measurement will be started as long as a signal is transmitted via the trigger input to the data logger. The measurement will be stopped as soon as the signal is no longer transmitted via the trigger input to the data logger.

Start execution of a macro with trigger signal

1. Tick the checkbox next to Macro execution.
2. Tap on the field next to Variant.
3. Tap on the macro you want to execute with the trigger signal.
4. Tap on the arrow ► in the line Macros.
5. Tap on the field next to the macro you want to set.
6. Enter the ALMEMO® commands (in the format intended for that purpose) that shall be carried out when the macro is executed (see Instruction Manual 2020 chapter 6.6.5 Macros).
7. Tap next to the field.
 - The macro will be executed as soon as a trigger signal is received by the data logger via the port.

5.5.4 Set the Analog Output Port Assignment

Transmit measured values of one specific measuring channel to the analog output

1. In the home screen of the app tap on the button .
2. Tap on the arrow ► in the line Device list.
3. Tap on the arrow ► in the line of the measuring circuit board to which the ALMEMO® sensor is connected, to which the measuring channel belongs whose measured values are transmitted to the analog output.
4. Tap on the arrow ► in the line Output module.
5. Tap on the arrow ► in the line of the RTA6 slide-in module, in which you want to establish the analog output.

6. Tap on the arrow **>** in the line Port list.
 7. Tap on the arrow **>** in the line of the port you want to set.
 8. Tap on the field next to Variant.
 9. Tap on Assigned, sourcing channel.
 10. Tap on the field next to Analog output assigned to this measuring circuit board.
 11. Tap on YES.
 - The lines Analog output and Channel will be displayed.
 12. Tap on the field next to Channel.
 13. Tap on the measuring channel whose measured values you want to transmit to the analog output.
 14. Tap on the field next to Type.
 15. Tap on the type 0...10 V or on the type 0...20 mA.
- ☞ The type indicates to which current range respectively voltage range the measured values of the measuring circuit boards should be scaled when being transmitted.
- In the line analog output the currently transmitted value is displayed.
- ☞ In case no analog start and no analog end have been set in the selected sourcing channel, for type 0 to 10 V 0.5 mV per digit will be transmitted (e.g. for a measured value -20.4 °C, -0.102 V will be transmitted). For type 0 to 20 mA, 1 µA per digit will be transmitted (e.g. for a measured value 30.2 °C, 0.302 mA will be transmitted).
- ☞ In case the measured values shall be scaled to 4 to 20 mA instead of 0 to 20 mA and transmitted that way, you need to make the appropriate settings within the measuring channel, whose measured values shall be transmitted.
- ☞ Which measuring range shall be scaled to the selected power range respectively voltage range and then be transmitted, can be set in the measuring channel using the values Analog Start and Analog End as will be explained in the following steps.

5 How to use the RTA6 Slide-in Module

16. Tap on Back until you reach the home screen.

17. In the home screen of the app, tap on the button .

18. Tap on the arrow  in the line Device list.

19. Tap on the arrow  in the line of the measuring circuit board, to which the ALMEMO® sensor is connected to which the measuring channel belongs whose measured values are transmitted to the analog output.

20. Tap on the arrow  in the line Sensor overview.

21. Tap on the arrow  in the line of the sensor, to which the measuring channel belongs whose measured values shall be transmitted to the analog output

22. Tap on the arrow  in the line Sensor channels.

23. Tap on the arrow  in the line of the measuring channel, whose measured values shall be transmitted as analog signal.

24. Tap on the arrow  in the line analog output.

25. Untick the checkbox in the line Locking 6.

➤ The fields next to Analog Start and Analog End can be edited .

 Analog start and analog end indicate the range of the measured values that shall be scaled and transmitted as an analog signal to the analog output. In case only a section of the measured range shall be transmitted (e.g. -30.0 to 120.0 °C scale in 0-20 mA), the scope of the area must at least amount to 100 digits (e.g. -30.0 to -20.0 °C scale in 0-20 mA).

27. Tap on the field next to Analog start.

28. Enter the lowest value that shall be scaled and transmitted to the analog output.

29. Tap on the field next to Analog end.

30. Enter the highest value that shall be scaled and transmitted to the analog output.

31. In case you want to transmit the measured values in mA and the measured values shall be scaled to 4 to 20 mA instead of 0 to 20 mA and transmitted

that way, you need to untick the checkbox next to Locking 1 and tick the checkbox next to Analog output 4-20 instead of 0-20 mA.

- ☞ In case the checkbox in the line analog output 4-20 instead of 0-20 is ticked and the type 0 to 10 is set in the analog output, the selected measuring range will be transmitted between analog start and analog end, scaled to 2 to 10.
- The measured value of the selected measuring channel will be transmitted with the desired scaling to the analog output.
- ☞ In case of a sensor break in the measuring channel, 0 V respectively 0 mA will be transmitted on the analog output.
- ☞ In case of over range in the measuring channel, the maximum analog output value will be transmitted (10 V or 20 mA).

Transmit manually set analog values to the analog output

- Follow the steps 1 to 7 in chapter 5.5.1 Open Port Settings.
- 8. Tap on the field next to Variant.
- 9. Tap on Controlled.
- 10. Tap on the field next to Analog output.
- 11. Enter the analog value that shall be transmitted on the analog output.
- 12. Tap next to the field.
- The entered analog values will be transmitted on the analog output of the selected port. In this setting, the analog value is independent from the measuring channels and the measured values of the data logger.
- ☞ If you want to transmit manually set analog values to the analog output, the Watchdog function must be disabled. (see chapter 5.6 Enable or disable the Watchdog Function).

Transmit analog values that are preset by the interface to the analog output

- Follow the steps 1 to 7 in chapter 5.5.1 Open Port Settings.
- 8. Tap on the field next to Variant.
- 9. Tap on Controlled.

5 How to use the RTA6 Slide-in Module

- The control of the analog output via the interface is only possible in the Transparent Mode (see Supplementary Instruction Manual ALMEMO® 500 Transparent Mode).

5.6 Enable or disable the Watchdog Function

👉 If the Watchdog function is enabled, all relays will drop out and all analog outputs will transmit 0 V respectively 0 mA in case the control of the data logger or the control of controlled relays or analog outputs via the interface fails for one minute.

The Watchdog can be enabled for every RTA6-Einschub individually.

Enable the Watchdog function

1. In the Home screen of the app, tap on the button .
 2. Tap on device list.
 3. Tap on the arrow ➤ in the line of a measuring circuit board.
 4. Tap on the arrow ➤ in the line output module.
 5. Tap on the arrow ➤ in the line of the RTA6 slide-in module, in which you want to enable the Watchdog function.
 6. Tick the checkbox next to Watchdog.
- The Watchdog function is enabled.
 - In the line Watchdog Status "OK" will be displayed as long as the control actions via interface or via measuring circuit board can be received at least once per minute.
 - All relays will drop out and all analog outputs will transmit 0 V respectively 0 mA in case the control of the data logger or the control of controlled relays and / or analog outputs via the interface fails for one minute.
 - In the line Watchdog Status ERROR will be displayed and the Watchdog LED of the RTA6 slide-in module will light in case the control of the data logger of the control of controlled relays via the interface fails for one minute. The Watchdog Status ERROR will be displayed until the function has been disabled and been enabled again (if required).

Disable Watchdog Function

- Follow the steps 1 to 4 of the section Enable Watchdog Function.
- Untick the checkbox next to Watchdog.
 - The Watchdog function is disabled.
 - The line Watchdog Status will no longer be visible.

5.7 Remove RTA6 Slide-in Module from the Housing of the Data Logger

! The data logger must be switched off.

! The data logger must be disconnected from the power supply.

1. Loosen the knurled screws that hold the RTA6 slide-in module in place.
2. Remove the RTA6 slide-in module from the housing of the data logger.



Make sure that no short circuits on the circuit board occur. Never place any conducting parts (e.g. screwdriver) on the circuit board. Short circuits will result in product damage.



Protect the module against electric discharge. Only operate the module in electrostatic protected areas.

6 Technical Data

RTA6 Slide-in Module ES 500-RTA6

Trigger inputs	Optocoupler 4 to 30 V, $R_i > 3 \text{ k}\Omega$
Relay	Solid-state relay 50 V, 0.5 A, 1 Ω
Analog outputs	10 V or 20 mA (programmable) 16 bit DAC, galvanically isolated
0.0...10.0 V	0.5 mV/digit, load $> 100 \text{ k}\Omega$
0.0...20.0 mA	1 μA /digit, load $< 500 \text{ Ohm}$
Accuracy	$\pm 0.1 \%$ of MV. $\pm 0.1 \%$ of EV
Temperature drift	10 ppm/K
Output rate	A total up to 100 events/s for an installation with 1 RTA slide-in module
Voltage supply	Via ALMEMO® 500 data logger
Current consumption	Standard: ca. 10 to 20 mA 2 analog outputs: approx. 15 mA + 1.8 · I_{Out}
Slide-in module	19" 8TE (2 slide-in locations)

Subject to technical modifications without prior notice!

7 Declaration of Conformity



Doc-Nr. CE_MA500_001_20181005_R1.doc

EU-Konformitätserklärung

EU-Declaration of Conformity

nach/according to EN 17050-1

Hersteller: Ahlborn Mess- und Regelungstechnik GmbH
Manufacturer:
Adresse: Eichenfeldstrasse 1
Address: 83607 Holzkirchen
Germany

**bestätigt, dass das Produkt
declares, that the product**

Produktbezeichnung: Messwerterfassungsanlage ALMEMO® 500
Product Name:
Produkt Typ: MA500CPUA20...
Product Type:
Produkt Optionen: BT8B, TG6B, TG8B
Product Options:

**den nachfolgenden Europäischen Anforderungen und Richtlinien entspricht und folglich das CE
Zeichen trägt.**
*conforms to following European Product Specifications and Regulations and carries the CE
marking accordingly.*

2014/35/EU Niederspannungsrichtlinie
Low Voltage Directive

2014/30/EU EMV Richtlinie
EMC Directive

2014/53/EU R&TTE Richtlinie
R&TTE Directive

Angewandte harmonisierte Normen
und technische Spezifikationen: *Sicherheit (Safety)*
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Notes

Besides greatest diligence, the possibility of incorrect
information cannot be excluded!

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You will find the present and further Instruction Manuals, as well as the
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