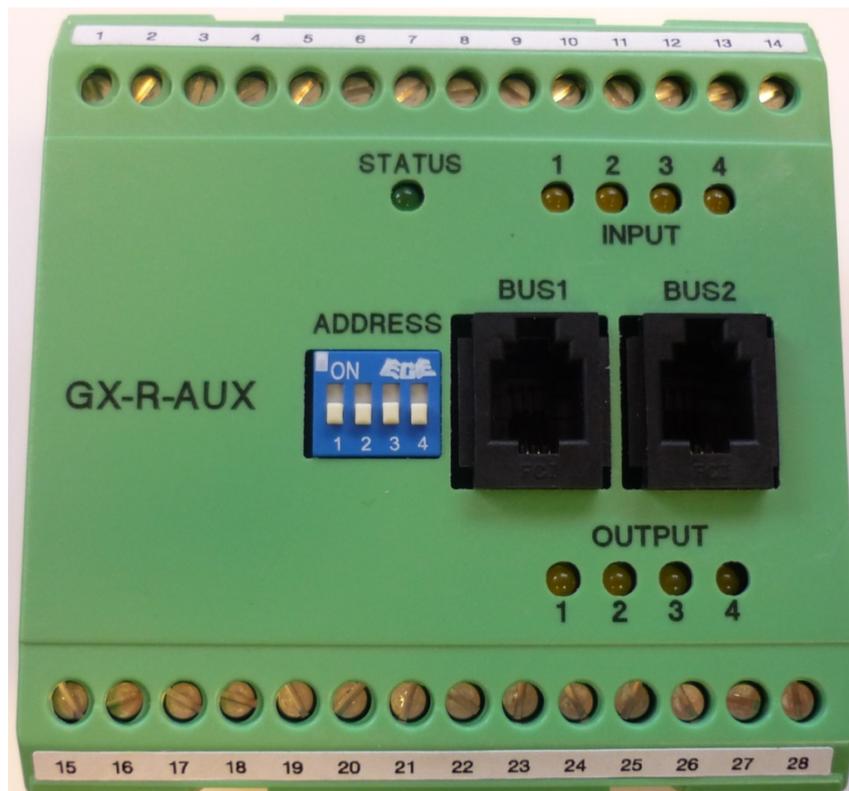# GX_R_AUX

**Description:** The GX_R_AUX is a BMCS bus compatible device for free programming of 4 switching outputs and reading 4 potential free input contacts.

**Usage:** A typical application is the control of a battery breaker in case of "thermal runaway" alarm  in the battery system. In case of a high battery temperature and increasing voltages during float charge, the GX_R_AUX may open the battery breaker to stop a further increase of the temperatures in the batteries. Other applications would be to read the input alarm of a smoke sensor, air conditioning alarms or to trigger emergency power off switches etc.

**Programming:** Individual programming of the output relays and input alarm contacts is made through the CS141/BMCS WEBMANAGER web interface.

**Installation:** The GX_R_AUX may be placed on a DIN Rail anywhere in the BMCS bus to shorten the distance to the output/input devices. The BMCS bus allows to connect inputs and outputs anywhere within your BMCS system.



**Picture: GX R AUX bus device - 1**

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# 1.   GX_R_AUX terminals

## 1.1      Description screw terminals top 1-14:



1.  Not Connected
2.  Not Connected
3.  Digital Input 1
4.  +12V (supply for input 1)
5.  Digital Input 2
6.  +12V (supply for input 2)
7.  Digital Input 3
8.  +12V (supply for input 3)
9.  Digital Input 4
10. +12V (supply for input 4)
11. Alternative BMCS bus +12V power supply
12. Alternative BMCS bus data input
13. Alternative BMCS bus data output
14. Alternative BMCS bus ground

Alternative BMCS bus: Pins 11 to 14 don't need to be connected, when the device is powered over "BUS1" or "BUS2" RJ-10 jack by BMCS bus.

If a connection through "BUS1" or "BUS2" is not wanted, you may use the alternative BMCS bus connectors Pin 11-14 on this GX_R_AUX terminal.

## 1.1      Description screw terminals bottom 15-28:



15. Relay 1 NO
16. Relay 1 Common
17. Relay 1 NC
18. Relay 2 NO
19. Relay 2 Common
20. Relay 2 NC
21. Relay 3 NO
22. Relay 3 Common
23. Relay 3 NC
24. Relay 4 NO
25. Relay 4 Common
26. Relay 4 NC
27. Not connected
28. Not connected

NO: normally open
NC: normally close

## 2. LEDs

- Green led shows status of the device. Green static means that the device is part of the BMCS bus system and communication is established. Green blinking means that the device is not communicating with any BMCS Manager (Boot phase or not addressed)
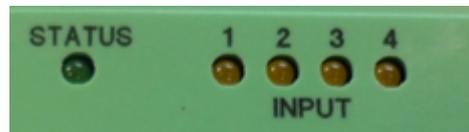


- INPUT: Four yellow led's show the status of the digital inputs. If digital input is low, than LED is off, if digital input is high (12 Volt), the LED changes to on.
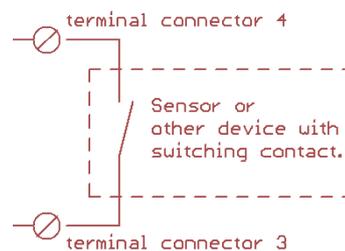


- OUTPUT: Four yellow led's show the status of the relays.
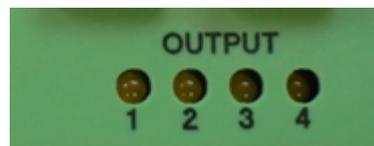


| LED status: | ○ | ☀ |
|---|---|---|
| Relay status: | 17 ⌐ 15  16 | 17 ⌐ 15  16 |

# 3. DIP-Switch

- By changing the DIP SW 1-4, the BMCS bus address of this device is altered. Default is Address 32768 at DIP SW 1-4 OFF. Make sure that if more than one GX_R_AUX is connected to the BMCS bus, that the position of the DIP SW are different between these devices. Max. No. of GX_R_AUX in a BMCS bus is 10 devices.

# 4. BUS1 / BUS2 RJ-10 connectors

- This are the BMCS bus connectors, use BMCS bus cable type B2BCRJxxx to connect the GX_R_AUX to the BMCS bus.
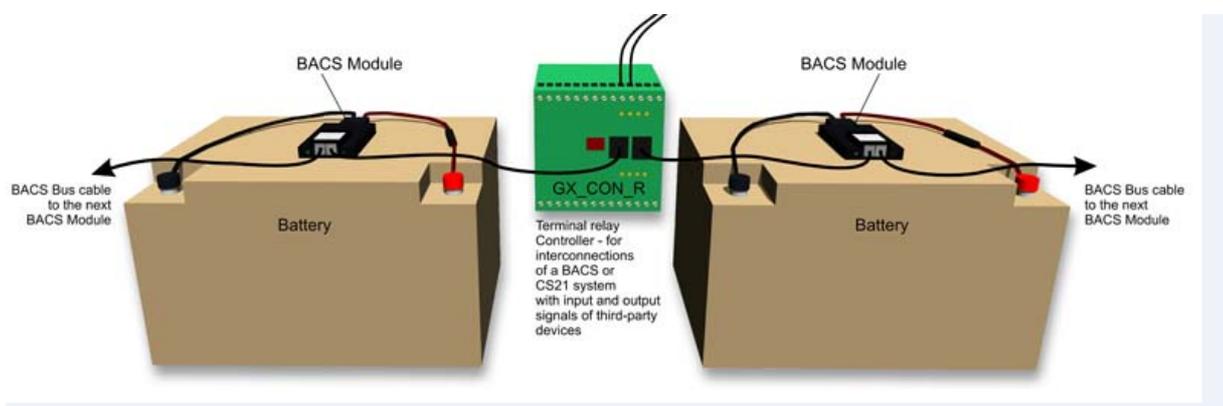


# Warning!

Use only stabilized 12V DC for power supply over BMCS-BUS!

BMCS WEBMANAGER and BMCS CONVERTER must use only 12Volt stabilized power supply to avoid damages on the GX_R_AUX!