



**Ceric**

**BB2**

**BB2  
2 channel 4-20mA  
option**



**ENTER**

**Ceric**

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## **1. Introduction**

The BB2 4-20mA module is used to expand the BB2 central unit with two 4-20mA loops. The user is assumed to be familiar with BB2 and 4-20mA technology.

## **2. A few words about this manual**

The manual primarily contains information about the BB2 4-20mA module. The operation and measuring principles of the sensors and the central unit is described in their respective manuals.

## **3. ???**

## 4. Unpacking

The unit has been tested and approved before delivery from the supplier. Please check that no visible damages are apparent in this shipment.

### DAMAGES

If damages occurred during shipment, immediately contact the shipping company and the Cerlic representative. The shipment should be returned only after an return authorization number has been issued by Cerlic or representative.

### PACKAGING

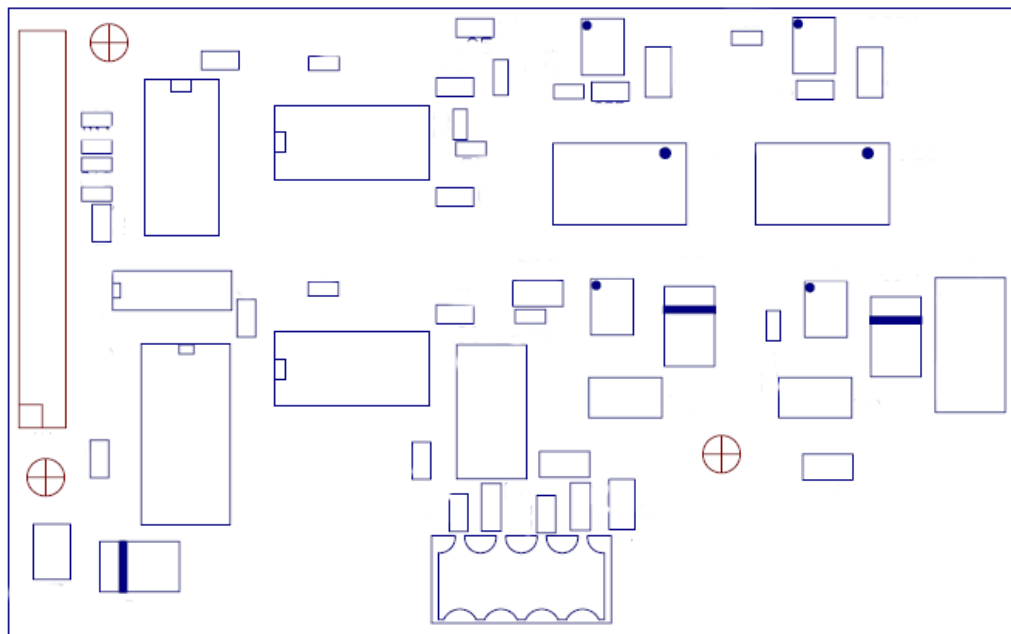
The original packaging is designed to protect the equipment and should be used for storage or if the product must be returned.

### CONTENT

Please check that the content corresponds to your order and packing list.

## 5. Module Overview

The module has two active 4-20mA outputs. The module is connected to the control box via a 34 pin connector.



6.

## Mounting in the BB2 control box

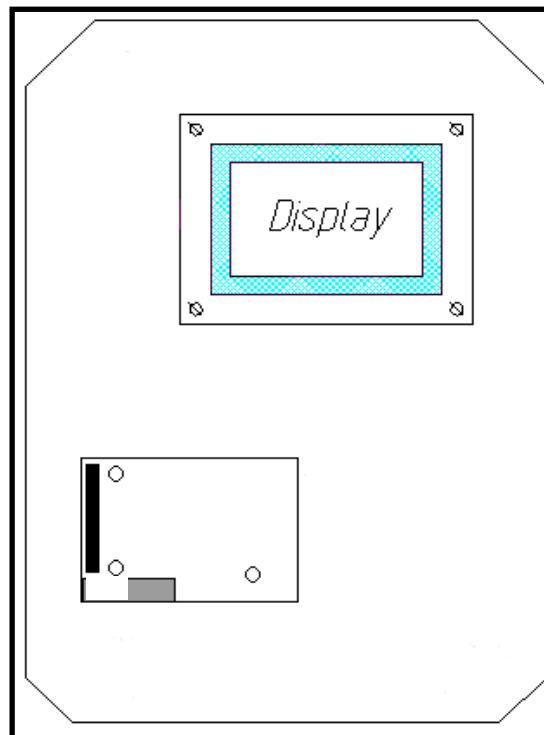
The 4-20mA module shall be mounted in a BB2 control box. Make sure the power to the control box is switched off before mounting the module.



Connect yourself and the control box chassis to protective ground before opening the antistatic package of the module to avoid static discharges that can damage the module or the box.

Be careful to get all 34 pins into their sockets. Fasten the module using the three M 2,5x5 screws that comes with the module.

When correctly mounted, the module will identify itself as “4-20Ma” in the BB2 menu under Settings / Exp.module



Mounting the module in the control box

## WIRING CONNECTIONS

Connect the 4-20mA loops to the screw terminals according to the table below.

No	Name	Function
1	Ch3 -	Channel 3 return
2	Ch3 +	Channel 3 positive
3	Ch4 -	Channel 4 return
4	Ch4 +	Channel 4 positive

## 7. Configuration

There is no configuration needed.

## 8. Getting started

A shortcut to get the 4-20mA module up and running.

- Make sure the BB2 box to be used is switched off.
- Open the front and locate the expansion module connector.
- Connect yourself and the control box chassis to protective ground before opening the antistatic package of the module to avoid static discharges that can damage the module or the box.
- Mount the module into the box, be careful to fit all 34 pins into the socket.
- Fasten the three M2.5x5 screws
- Connect the mA loops, negative line to screw terminal 1, and 3, positive to terminal 2, and 4.
- Switch on the power to the BB2 box and check that the module identifies itself in the BB2 menu under Settings / Exp.module.
- Configure the sensor(s) that shall use channels 3, and 4 to do so in the sensor menu.

## 9. Technical specification for the 4-20mA module

Manufacturer	Cerlic Controls AB, Sweden
Name	BB2 4-20mA expansion module
Measurement	See drawing in section 17
Enclosure	NEMA4 (IP65)
Weight	2.8 lbs (1,3 kg)
Supply voltage	85 – 250 V AC, 50 – 60 Hz
Fuse	3.15 A Slow 250V 4 x 20mm
Power Usage	20 Watts (0.180 Amps @ 110V)
Ambient temp	-4 – +122 °F (-20 – +50 °C)
Internal Heating	Full power below 63 °F (17 °C), Off above 66 °F (19 °C)
Storage temp	32 - +140°F (0 – 60 °C)
Connected sensors	Displayed on the screen at start-up
Output signals	Two (2 ) 4 – 20 mA (20 – 4 mA), galvanic isolated, 450 ohm
Relays	Selectable function, 85-250VAC max 30VA, 24VDC max 100mA or Dry contacts 250VAC / 30VDC, max 30 VA, normally open

