CCB_BRAIN1-B200-70M-01

1.1 Description

1.2   Connectors and Indication-/Operation-Elements

1.2.1   Connectors (X)

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

ID	Model	Usage	Num. of term.	Model / Series	connection	elec. usage
BBB.X00	Plug	LAN		RJ45	-	Ethernet IEEE 802.3
BBB.X01	Plug	Com. service	1	USB Typ A		USB 2.0
BBB.X02	Plug	Com. service	1	USB Typ A		USB 2.0
BBB.X03	Plug	Com. service	1	USB Typ A		USB 2.0
BBB.X04	Plug	Com. service	1	USB Typ A		USB 2.0
Supply.X01	Print Connector	power supply, internal	2	MTA-156	-	Power level
Supply.X02	Print Connector	Main switch connector, internal	4	Molex 39-28-1043, Mini-Fit	internal	Power level
Supply.X03	Box connector	emBRICK I/O-Bus	10		-	brickBUS slave
Supply.X04	Flachstecker	PE-Connection	1	6,3x0,8mm liegend	min. 1,5mm²	
Supply.X05	Flachstecker	PE-Connection	1	6,3x0,8mm liegend	min. 1,5mm²	

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 coloumn) in the preavious Illustrations.

ID	Model	Model / Series	Grid	Num. of term.	connection	elec. usage
Supply.TB01	Cage Terminal	WAGO250	5mm	3	up to 1.5mm²	PE
Supply.TB02	Cage Terminal	WAGO250	5mm	2	up to 1.5mm²	Power level
Supply.TB02	Cage Terminal	WAGO250	5mm	2	up to 1.5mm²	Power level
Supply.TB03	Cage Terminal	WAGO250	3.5mm	2	up to 1.5mm²	24V
Supply.TB04	Cage Terminal	WAGO250	3.5mm	2	up to 1.5mm²	24V

1.2.3 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
Supply.TB01	1	PE	Protective earth	-
Supply.TB01	2	PE	Protective earth	-
Supply.TB01	3	PE	Protective earth	-
Supply.TB02	4	L	Phase, Supply	-
Supply.TB02	5	N	Neutral, Supply	-
Supply.TB03	6	L	Phase, Consumer	switched
Supply.TB03	7	N	Neutral, Consumer	switched
Supply.TB04	8	+24V	Supply sourcing 24V DC for externals	-
Supply.TB04	9	GND	Ground	-
Supply.TB05	10	+24V	Supply sourcing 24V DC for externals	-
Supply.TB05	11	GND	Ground	-

1.2.4 LED Indications

ID	Type	Specification	Type / Usage
Supply.LED01	SMD-LED	yellow	Zeigt an ob 24V Spannung vorhanden ist.
Supply.LED02	SMD-LED	yellow	Zeigt an ob 3,3V Spannung vorhanden ist.

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.
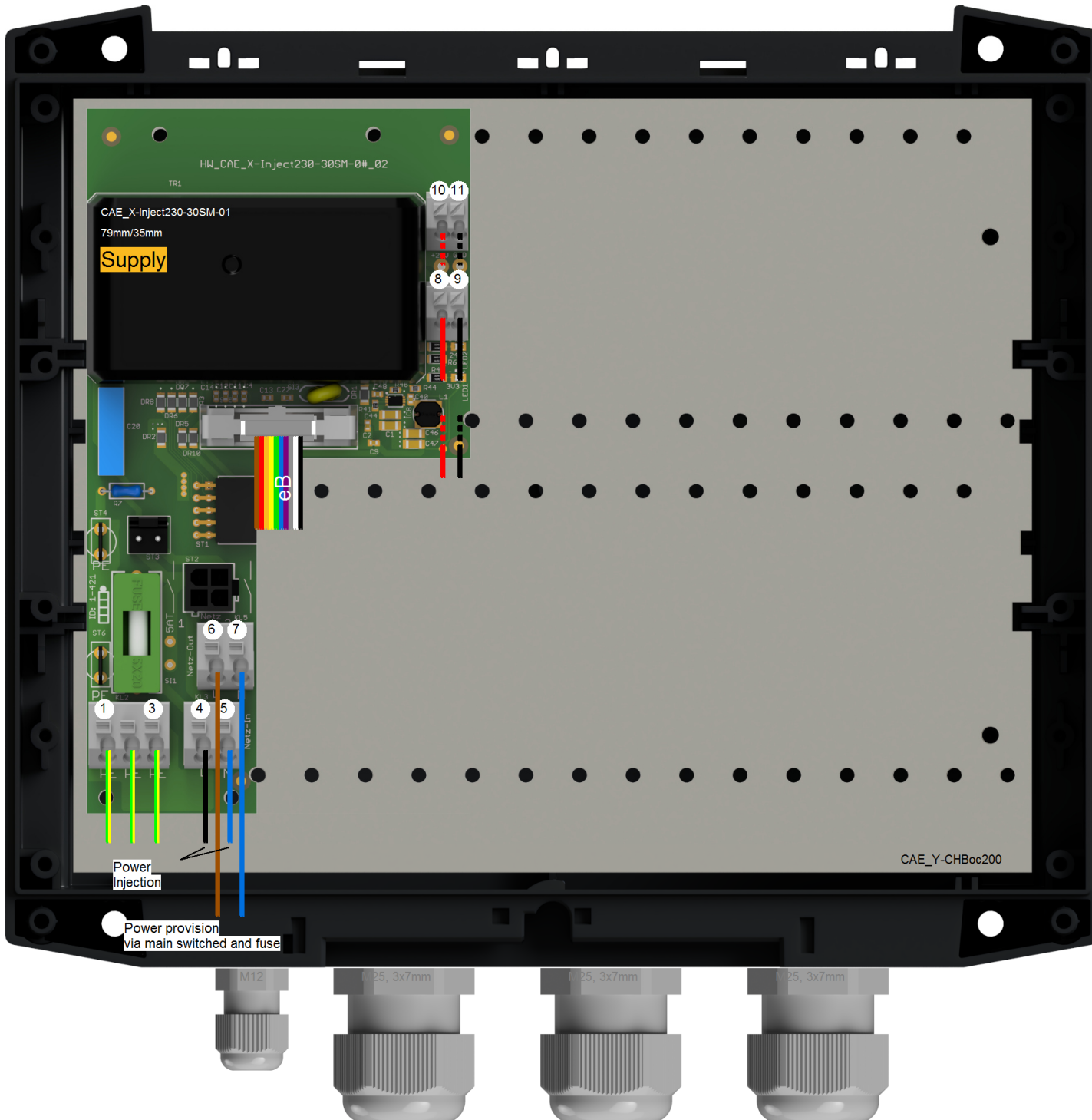
1.4 Technical Data

1.4.1 Power Supply (injected from external)

The control unit requires the following electrical supply from external:

Description	Main Supply form external
Information	
Voltage	100 ... 240Vac
max. Current	5A AC
Inactive Current	30mA AC
Frequency	50 ... 60Hz
Remark	external required fuse: max. 10A

1.4.2 Pulse Power Supply (provided to external)

The control unit provides the following electrical supply (for example to the sensor / actuator supply):

Description	Supply sourcing 230V AC for externals
Voltage	like incoming main supply
max. Current	5A AC
max. Power	nom. 1100VA
Remark	switched via power switch, reduced wit inductive load

Description	Supply sourcing 24V DC for externals
Voltage	24V DC
max. Current	1A DC
max. Power	24W
Remark	-

1.4.3 Fuses

The controller owns the following internal fuses for providing safety for the device and partially for the connected sensors/ actors:

ID	Type	Nom. Current	Characteristic	Usage
Supply.F01	Glas, 5x20mm	5A	delayed	Main Fuse
Supply.F02	Polyfuse	0.75A		brickBUS 24V supply

1.4.4   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					

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