

## C-863.AD11 / C-863.AD12

Adapter/Amplifier Boxes for the C-863.11 Controller and Specific Positioners



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## Product Overview

### Features

These products are adapter/amplifier boxes supporting sensor and power connections between the C-863.11 (Mercury) controller and several positioners with DC motors, featuring PWM-type signals.

Depending on the signal characteristics of the limit and reference switches, the following variants apply:

- C-863.AD11 for PNP characteristics (active low)
- C-863.AD12 for NPN characteristics (active high)

See the compliance table (“Applicable Positioners”) below.

### Other Applicable Documents

Product	Document
C-863.11 DC motor controller	MS205E User manual MS205Equ User manual, short version MS242EK Short instructions for digital motor controllers
Positioner	User Manual or Technical Note for the applied positioner (if applicable)

Further documents (PDF files) included in the controller CD-ROMs. User documentation for standard products can be downloaded from our web site [www.pi.ws](http://www.pi.ws).

### Scope of Delivery

Product No.	Description
C-863.AD11 or C-863.AD12	Adapter/amplifier box, according to your order
7300900006-0180	Power supply (sec.: 24 V DC) and cable set; incl. adapter plug
C-815.18	Motor cable 1 m with D-Sub 15 connectors (male/female)
C863T0006	User manual for C-863.AD11 / C-863.AD12 (this document)

## Applicable Positioners

Model		C-863.AD11	C-863.AD12
LS-270	623991x04	x	
	623991x14	x	
LS-180	624091x0	x	
	624091x1	x	
HPS-170	626291x00		x
	626291x10		x
PRS200	644991101x		x
	644991111x		x
WT-90	65509100		x
WT-120	65609110		x

## Component Designations of the Main Device

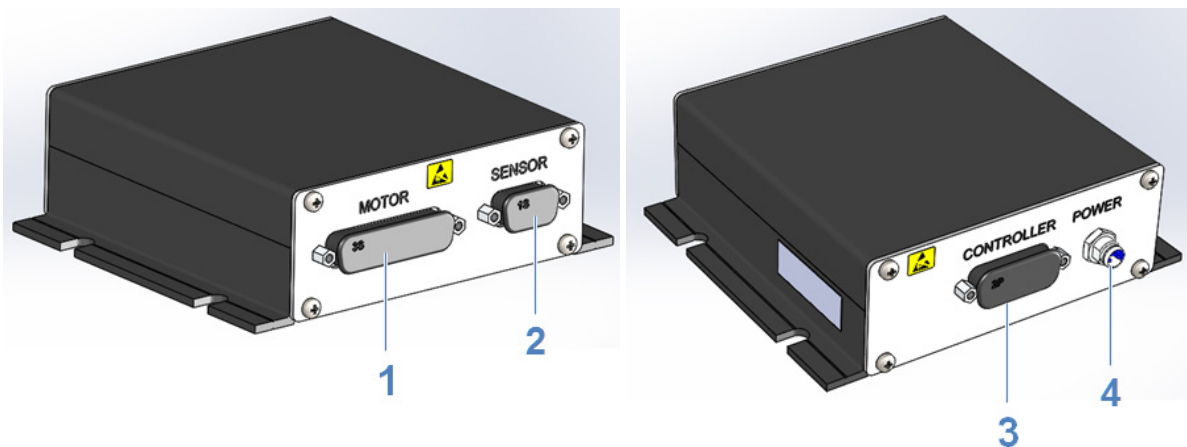


Figure 1: Components on the front and rear side

Ref.	Component	Format
1	Motor connector with protection cap	D-Sub 25 (female)
2	Sensor connector with protection cap	D-Sub 9 (female)
3	Controller connector with protection cap	D-Sub 15 (male)
4	Power connector	M8 4-contact (male)

## Connecting the Adapter/Amplifier Box

### Cabling Scheme

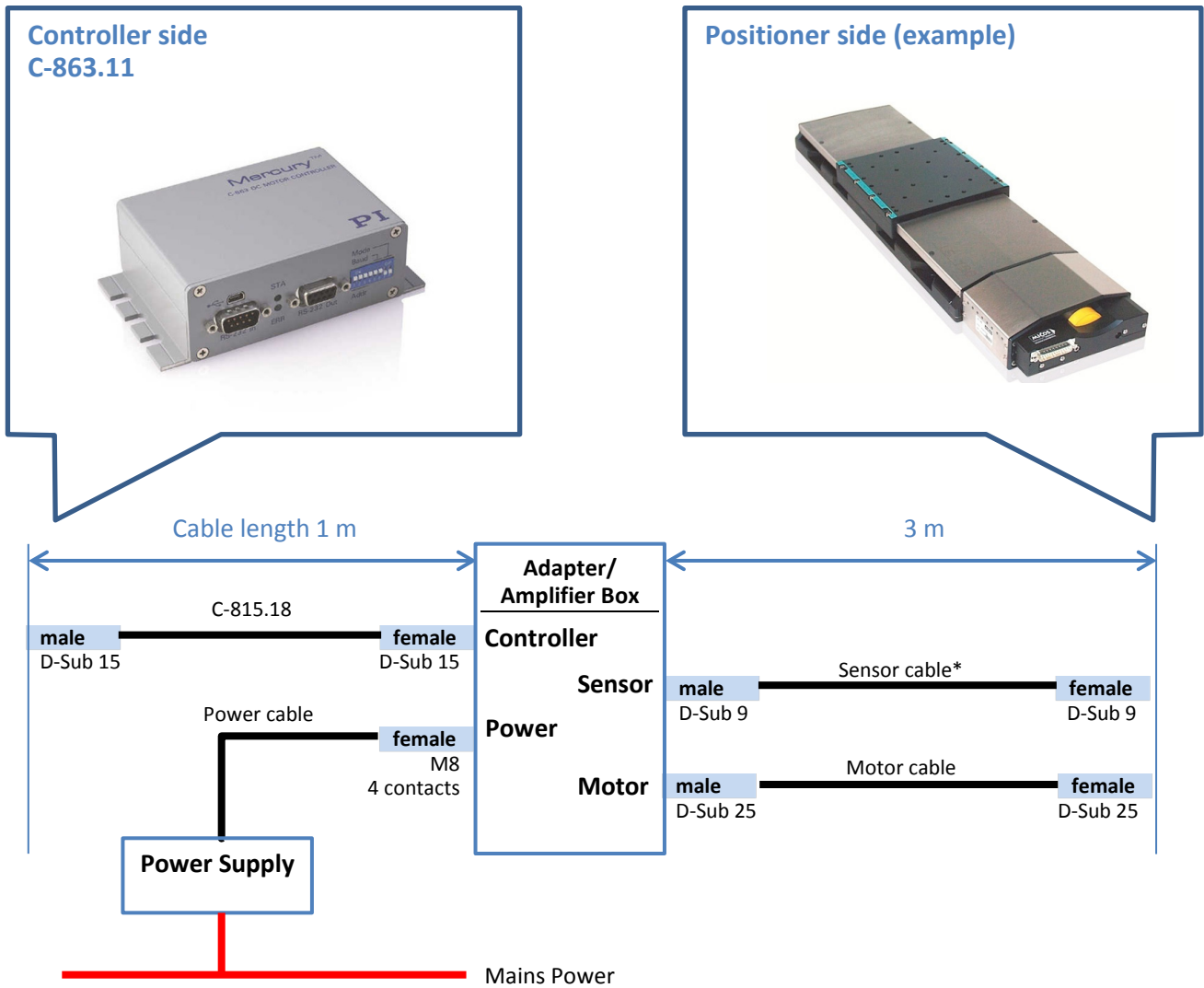


Figure 2: Cabling scheme

\* Sensor cable does not apply for all compliant positioners

### Connecting the Device

1. Ensure that the delivered adapter/amplifier box complies with your positioner (see table above).
2. Check whether separate sensor connection applies for your positioner.
3. Remove the protective caps from the required connectors.

4. Via the positioner's motor cable, connect the motor connector of the adapter/amplifier box to the controller connector of your positioner.
5. If applicable: Via the positioner's sensor cable, connect the sensor connector of the adapter/amplifier box to the sensor connector of your positioner.  
Note: If the positioner includes two different sensor components, e.g. linear encoder and rotation encoder, or an additional separate sensor is applied, **only** the motor cable must be connected.
6. Via the C-815.18 cable, connect the Controller connector of the adapter/amplifier box to the Motor connector of the controller.
7. Connect the output connector of the power supply to the adapter plug (included in the scope of delivery).
8. Via its mounted cable (now including the adapter plug), connect the power supply to the power connector of the adapter/amplifier box.
9. Via the power cable (included in the scope of delivery), connect the power supply to the mains power.

For operation of the positioner:

- Ensure that the controller and the motion control software (e. g. PI MikroMove) are properly installed.
- Ensure that the correct positioner is selected within the motion control software.
- Follow the instructions of the user manuals for the controller, the positioner, and the motion control software.

## Specifications

### Pin Assignment

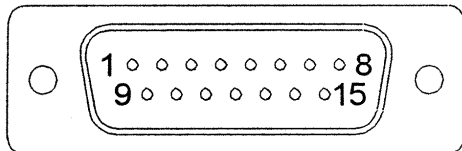


Figure 3: D-Sub 15 connector (male)

### Controller (D-Sub 15, Male)

Pin	Signal	Direction*
1	Motor brake	Output
2	-	-
3	MAGN	Output
4	Power 5 V DC	Output
5	Limit pos.	Input
6	GND	Input
7	Encoder A -	Input
8	Encoder B -	Input
9	-	-
10	GND	-
11	SIGN	Output
12	Limit neg.	Input
13	REF	Input
14	Encoder A +	Input
15	Encoder B +	Input

\* Related to the controller

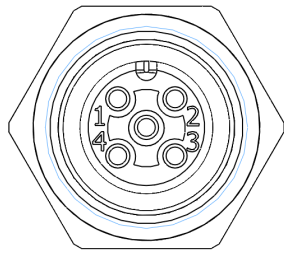


Figure 4: M8 4-contact connector (male)

### Power (M8 4-Contact, Male)

Pin	Signal	Direction
1	GND	Input
2	GND	Input
3	Power 24 V DC	Input
4	Power 24 V DC	Input

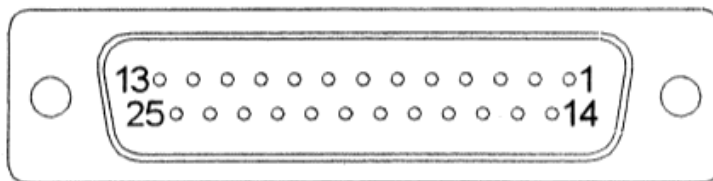


Figure 5: D-Sub 25 connector (female)

### Motor (D-Sub 25, Female)

Pin	Signal	Direction
1	Motor + (0 V ... 24 V)	Output
2	Motor + (0 V ... 24 V)	Output
3	Motor - (0 V ... 24 V)	Output
4	Motor - (0 V ... 24 V)	Output
5	-	-
6	-	-
7	-	-
8	-	-
9	Encoder A +	Input
10	Encoder B +	Input
11	Encoder I +	Input
12	Encoder GND	-

Pin	Signal	Direction
13	Encoder Power 5 V DC	Output
14	Limit pos.	Input
15	Limit neg.	Input
16	-	-
17	Motor Brake +	Output
18	Limit Power (C-863.AD11: 12 V DC / C-863.AD12: 5 V DC)	Output
19	Motor Brake -	Output
20	GND	-
21	-	-
22	Encoder A -	Input
23	Encoder B -	Input
24	Encoder I -	Input
25	-	-

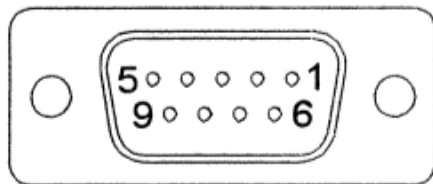


Figure 6: D-Sub 9 connector (female)

## Sensor (D-Sub 9, Female)

Pin	Signal	Direction*
1	Encoder A +	Input
2	Encoder B +	Input
3	Encoder I +	Input
4	Encoder GND	-
5	Encoder Power 5 V DC	Output
6	Encoder A -	Input
7	Encoder B -	Input
8	Encoder I -	Input
9	-	-



## Dimensions

Values in mm; decimal places separated by commas.

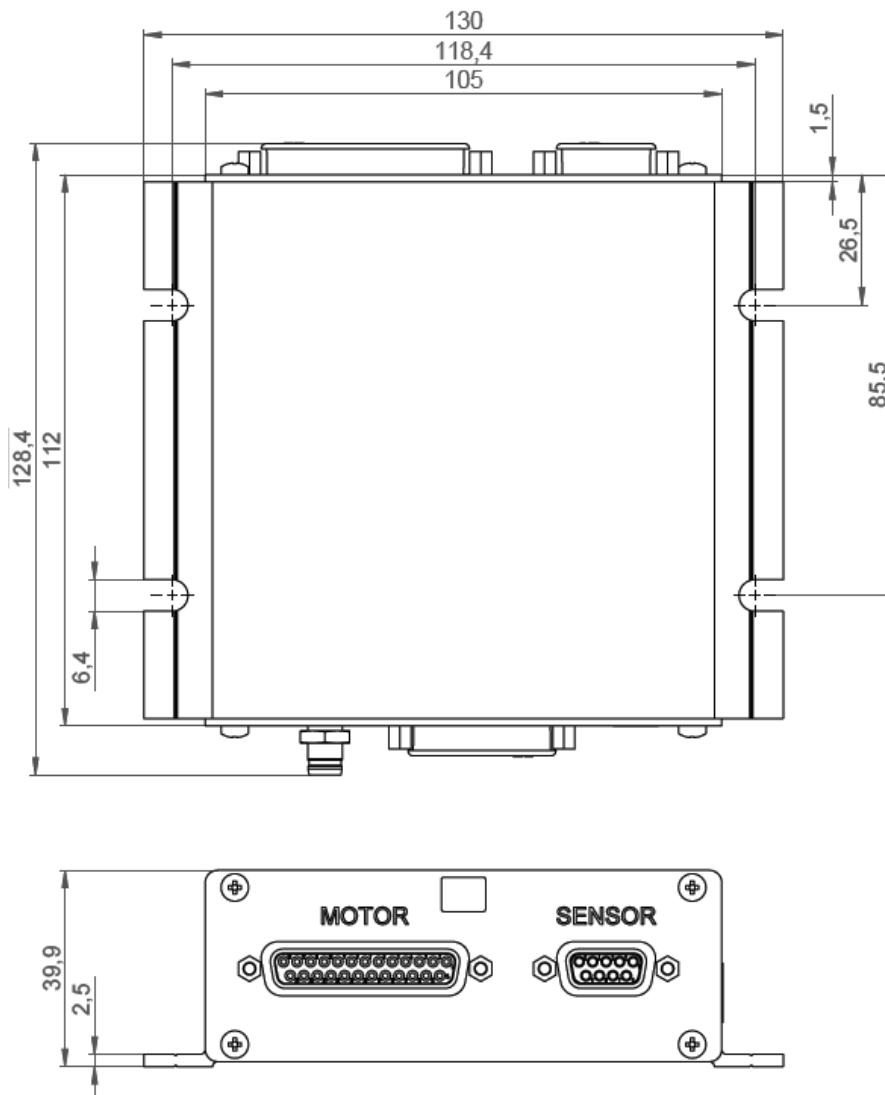


Figure 7: Dimensions

## EU Declaration of Conformity

For the devices, an EU Declaration of Conformity has been issued in accordance with the following European directives:

- EMC Directive
- RoHS Directive

The applied standards certifying the conformity are listed below.

- Electrical Safety: EN 61010-1
- EMC: EN 61326-1
- RoHS: EN 50581