

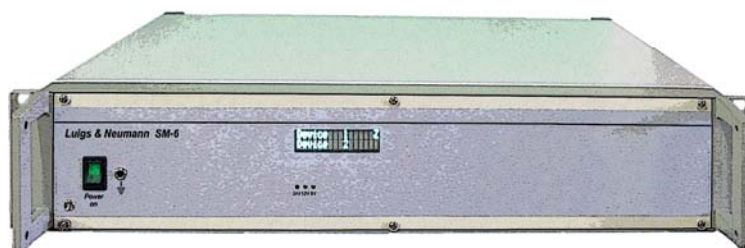
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# Instruction Manual

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## CONTROLLER

### SM-6



# Controller SM-6

Depending on assembly, 1 to 4 motorized axes can be connected to the Controller SM-6. The Controller SM-6 display indicates the number of axes able to be connected. Alternatively, the keypad SM-5 or the keypad SM-6 can be connected to the Controller SM-6 and used to control the motorized axes. Note that the Controller SM-6 is compatible with all components of the control system SM-5. It is possible to network up to eight individual Controllers.\*

\* Via the use of the Keypad SM-5

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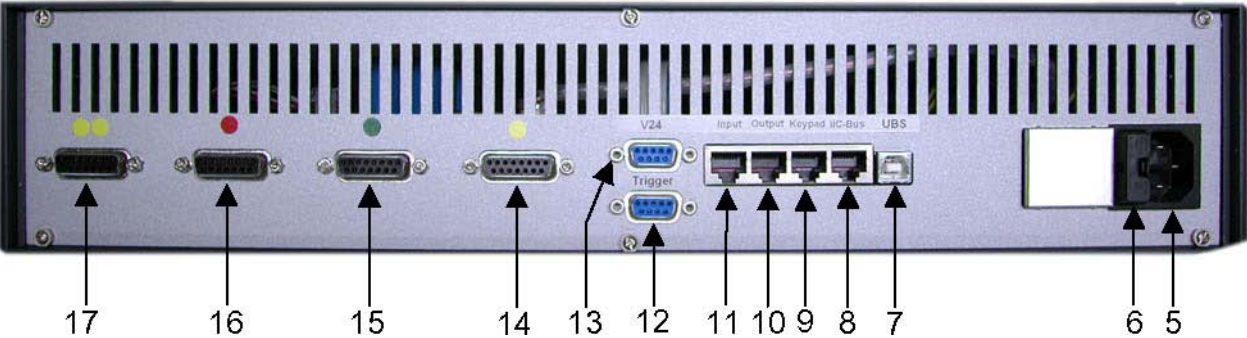
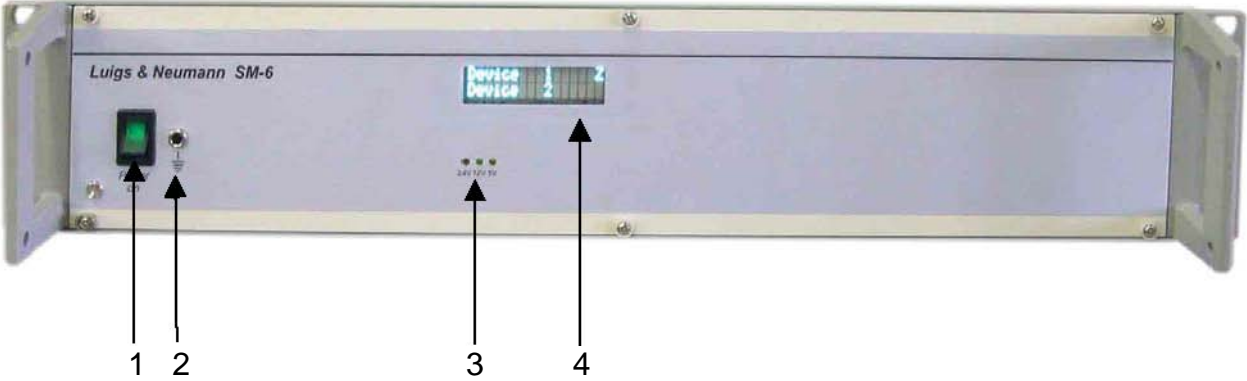
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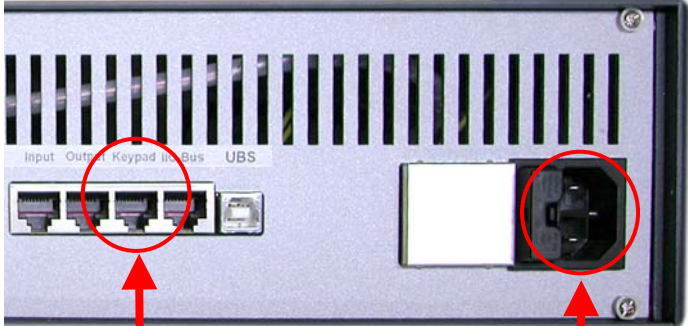
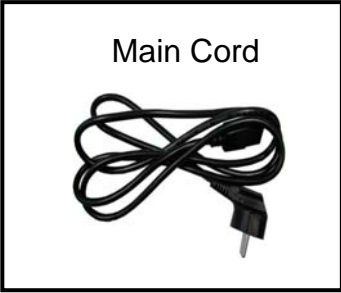
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# Overview: Controller SM-6



- 1 Power switch
- 2 Earthing socket
- 3 LED-Display (Power supply 5V, 12V, 24V)
- 4 Display
- 5 Power socket
- 6 Fuse (2 x T2A)
- 7 USB
- 8 I²C-BUS
- 9 Keypad
- 10 Output SM-5/6
- 11 Input SM-5/6
- 12 Trigger
- 13 V.24
- 14 Output 1 (X<sub>1</sub>)
- 15 Output 2 (Y<sub>1</sub>)
- 16 Output 3 (Z<sub>1</sub>)
- 17 Output 4 (Z<sub>2</sub>)

# Cable Connection for the Controller SM-6



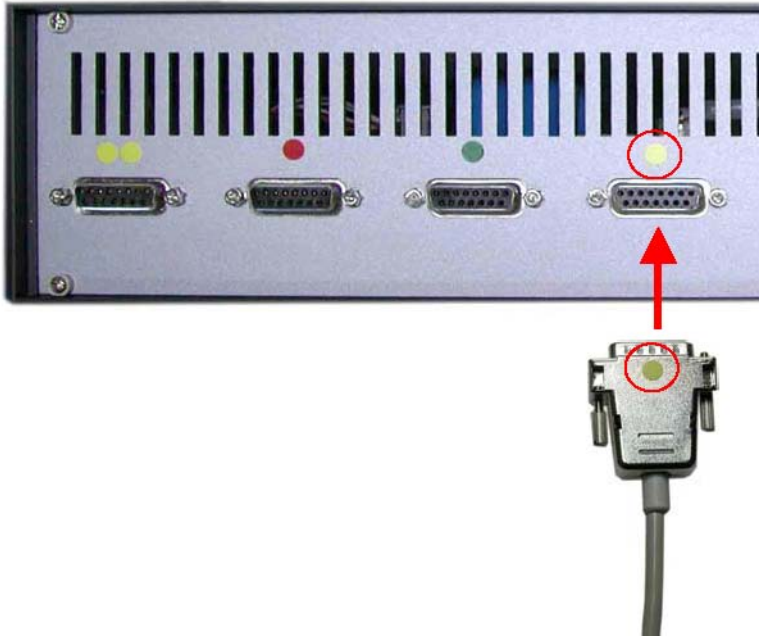
Power Socket  
110V – 230V

Keypad  
SM - 5 / 6

\* Connect the Controller SM-6 to the network using the main network cable as indicated above.

\* Connect the keypad SM-5/6 to the Controller SM-6 using the keypad cable as indicated above.

# Connection of the motorized axes



Four output sockets for each of the motorized axes are located on the rear of the Controller SM-6. Each output socket is labeled with a colored spot/s. Connect the motorized LN-Axes with the corresponding output socket on the Controller SM-6.

Use the power switch [1] to turn on the Controller SM-6.

The LED-Display confirms that the supply voltages are ready for use (5V,12V,24V).

If the Controller SM-6 is running, the display will show which of the outputs are populated.

D	e	v	i	c	e				1	X	Y	Z
D	e	v	i	c	e				2	Y	Y	Z



Allocation: Display to Output sockets

Device 1	X =		Y =		Z =				
Device 2	X <sub>2</sub> =			Y <sub>2</sub> =			Z <sub>2</sub> =		

## Connections on the rear of the SM-6:

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USB <sub>[7]</sub> :	Configuration Interface Controller SM-6 Update Keypad SM-6 Update
I <sup>2</sup> C-BUS <sub>[8]</sub> :	Extension for ancillary equipment
Keypad <sub>[9]</sub> :	Connection of the Keypad SM-5 or SM-6
Output <sub>[10]</sub> :	Networking the SM-6 with the SM-5 or SM-6
Input <sub>[11]</sub> :	Networking the SM-6 with the SM-5 or SM-6
Trigger <sub>[12]</sub>	Special function, step externally
V.24 <sub>[13]</sub>	Configuration Interface Controller SM-6 Update Keypad SM-6 Update
Output 1 <sub>[14]</sub>	Connection for the motorized LN-Axes
Output 2 <sub>[15]</sub>	Connection for the motorized LN-Axes
Output 3 <sub>[16]</sub>	Connection for the motorized LN-Axes
Output 4 <sub>[17]</sub>	Connection for the motorized LN-Axes

# Technical Data

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Housing	: 19“ / 2HE, 315mm deep
External dimensions (mm)	: approx. 449mm x 89mm x315mm
Weight	: 0.7kg
Input Voltage	: 85V – 264V AC, (47-63Hz)
Safety	: 2x T2A
Capacity	: max. 50W / 100W * <small>* depending upon assembly of the SM-6</small>
Current	: max. 1,3A
Switch-on Current (Switch-on Current 100V/200V AC)	: 14 / 25A

EC – Conformity Declaration.  
Corresponds to the regulations of the guidelines 89/336/EEC for electromagnetic compatibility (EMC).

EN50082 – 1 Guidelines of the European union:

International Electronical Commission 61000  
-4-2 electrostatic unloading

International Electronical Commission 6100  
-4-4 brief impulse voltage

International Electronic Commission 6100  
-4-5 over voltage safeness

EN 55022 guideline of the European union.  
Radiated ratio-frequency disturbance characteristics.

Low-voltage guideline 73/23/EEC.  
In the sense of the guideline 73/23/ECC:  
EN61010-1/A2 guideline if the European union.  
Safety regulations for electronic equipment, that are used for measurements, controls and laboratories.

# Appendix

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## Pin allocation of the Trigger- and V.24 Socket

### SM-5/6: Trigger<sup>[12]</sup>

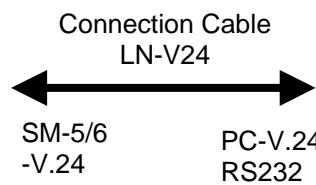
Plug 9pol. D-Sub, **Socket**

Pin	Description	Pulse Duration
1	Output Step: +5V	138ms
2	- free -	
3	Output Trigger: +5V	130ms
4	- free -	
5	Input Step: +5V	≥100ms
6	Output Trigger: GND	
7	Output Step: GND	
8	- free -	
9	Input Step: GND	

### SM-5/6: V.24 - RS232<sup>[13]</sup>

Plug 9pol. D-Sub, **Socket**

Pin	Description
1	- free -
2	TXD
3	GND
4	- free -
5	- free -
6	RXD
7	- free -
8	- free -
9	- free -



### PC: V.24 - RS232

Plug 9pol. D-Sub, **Pin**

Pin	Description
1	- free -
2	RXD
3	TXD
4	- free -
5	GND
6	- free -
7	- free -
8	- free -
9	- free -