Datasheet

**Control Unit for an Electric
Height-Adjustable Desk**

COMPACT
Rev 4

LOGIC
office

M O T I O N   F O R   Y O U R   L I F E

www.logicdata.at

Contents

1. Features

- High efficient switch mode power supply (SMPS)
- Low standby power consumption, low field emission
- Control units with US and EU input voltage available
- ISP (Intelligent System Protection)
- Enhanced Drive Comfort
- Safety area
- Low speed area
- InBox Diagnosis
- LogicConnector DATA for sensors and cascading
- Additional functions are available, depending on the handswitch model used (e.g. saving desktop positions, adjusting the desktop to saved positions, etc.)
- A wide selection of **LOGICDATA** handswitches is available for the control units

Caution: do not open the device! Risk of electric shock!

WARNING

Avoid damaging the AC plug and power cord. Never operate this unit if the power cord is damaged. Use only the provided power cord.

Connect the plug only to an electrical source matching the type label.

Never operate this unit until the control box is mounted and fully installed.

Never operate the control box until it is mounted and fully installed.

CAUTION

Do not open this unit. Uninsulated parts within the product's enclosure may expose you to dangerous voltage. Servicing may only be carried out by qualified personnel. Contact **LOGICDATA**.

To prevent fire or shock hazard, do not expose this device to rain or moisture.

Unplug the power cord before cleaning this unit. Only use a soft cloth, avoid abrasive cleaners.

If you are not using the device for a long period of time, it is recommended to unplug the power cord.

If strange smells or fume occur, unplug the power cord immediately. Contact **LOGICDATA**.

> **Note:** information about usage of the COMPACT can be found in the user manual which is valid for the firmware version of the COMPACT.

2. Type and Dimensions [1)]
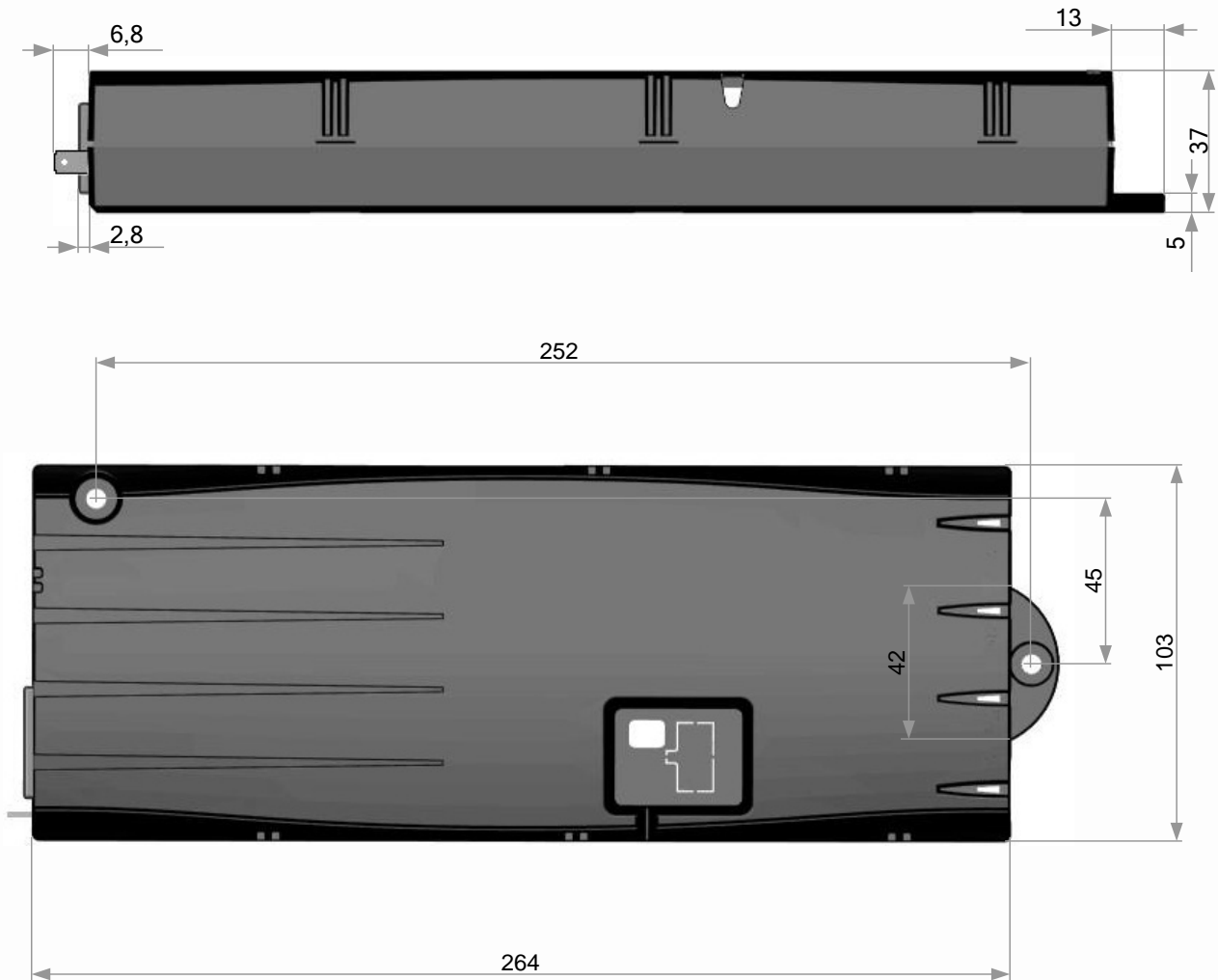
A drill template can be found in the Mounting Instructions, available as separate document.

1) Dimensions in mm; Tolerances according to DIN ISO 2768-1 c

3. Technical Data [1]

General

Supply voltage	EU: 207-254,4V / 50Hz
	US: 90-127V / 50-60Hz
Nominal voltage	EU: 230V / 50Hz
	US: 120V / 60Hz
Standby power, primary (typical)	<0.6W
Operating voltage for internal and external electronics and Hall sensors	5VDC ±10% 250mA
Precision of Motor current measurement @ 100% Output Voltage and 4-8A per Motor	±20%
Ambient temperature	0-30°C
Relative humidity (for operation)	5-85% (non condensing)
Storage and transport temperature	-40-85°C
Relative humidity (for storage)	5-90% (non condensing)
Protection class (with earth terminal)	I
IP class	IP 20
Dimensions (L x B x H) [mm]	264 x 103 x 37

COMPACT-3

|	
Switching cycles Depicted currents are sums over all motor channels	**Hi Power cycle:** 20s UP: 17,5A@20V 350W 20s DOWN: 6,5A@33V 214,5W Pause: 9min **Normal cycle 1/9:** 30s UP: 14A@24V 336W 30s DOWN: 6,5A@33V 214,5W Pause: 9min **Normal cycle 2/18:** 2min move: 6,5A@33V 214,5W Pause: 18min
Max. current per motor channel	8A Maximum sum current restricted according to values shown above
Weight (typical)	598g

1) Dimensions in mm; Tolerances according to DIN ISO 2768-1 c

COMPACT-2

Switching cycles	**Hi Power cycle:**
	20s UP: 14A@20V 280W
Depicted currents are sums over all motor channels	20s DOWN: 3,5A@33V 115,5W
	Pause: 9min
	Normal cycle 1/9:
	30s UP: 11A@24V 264W
	30s DOWN: 3,5A@33V 115,5W
	Pause: 9min
	Normal cycle 2/18:
	2min move: 3,5A@33V 115,5W
	Pause: 18min
Max. current per motor channel	8A
	Maximum sum current restricted according to values shown above
Weight (typical)	490g

3.1 Pin assignments
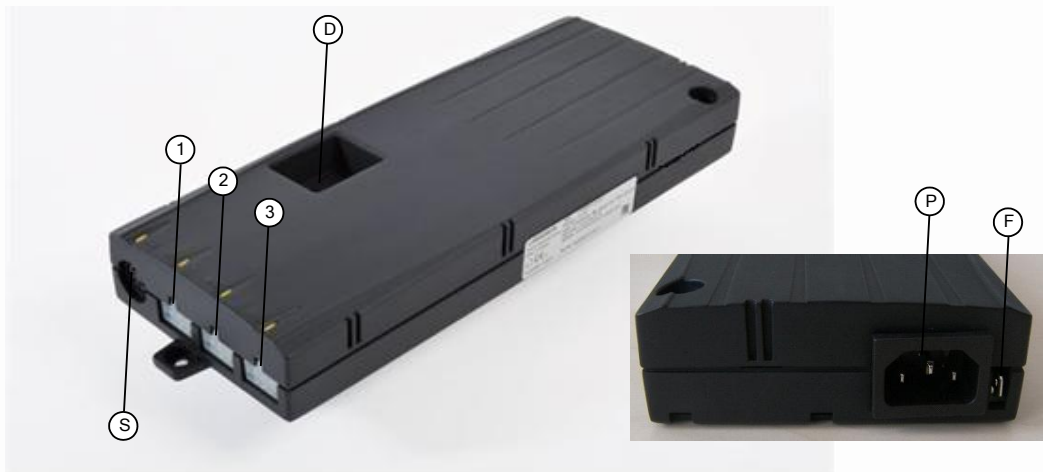
① Motor socket 1 (M1)
② Motor socket 2 (M2)
③ Motor socket 3 (M3)
S Handswitch socket (HS)
P Mains socket
F Functional earth, cable lug for earthing the desk frame (6,3x0,8mm lug)
D Logic Connector DATA for sensors and cascading

Danger: it is not allowed to connect self constructed products to **LOGICDATA** motor controls. To prevent damage of the unit, use only components suitable for **LOGICDATA** motor controls.

3.1.1 Motor socket

8	7	6	5
1	2	3	4

|			
1	Hallsensor1	5	Hallsensor 2, Limit switch 1
2	+5V	6	SYN
3	Limit Switch2	7	Ground
4	Motor+	8	Motor-

Danger: to prevent damage of the unit, use only motors/ motor cables suitable for **LOGICDATA** motor controls.

Pin	Description
Motor+ / Motor -	Power supply lines for motors
Hallsensor 1,2	Sensor input lines for hall sensors
+5V, GND	Power supply lines (e.g. for hall sensors)
SYN	Reserved
Limit Switch 1,2	Digital sensor input lines for limit switches

Danger: the maximum load for the 5V circuit is 250mA, this means that the combined load on all interfaces must not exceed this value!

3.1.2 Handset socket
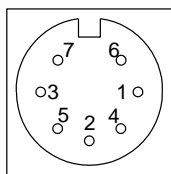
1	RxD	5	HS2
2	HS3	6	TxD
3	HS1	7	+5V
4	HS4	Shell	Ground

(pin alignment according to DIN 45329)

Danger: to prevent damage of the unit, use only handswitches suitable for **LOGICDATA** motor controls.

| Pin	Description
TxD / RxD	Pins for communication (**LOGICDATA** communication protocol)
+5V, GND	Power supply lines for handswitch
HS X	Parallel handswitch input lines

Danger: the maximum load for the 5V circuit is 250mA, this means that the combined load on all interfaces must not exceed this value!

Note: please contact **LOGICDATA** for information about the coding of the parallel handswitch input lines!

3.1.3   Logic Connector DATA

8	7	6	5
1	2	3	4
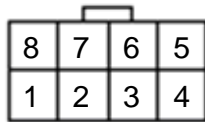
1	RxD	5	Signal 2
2	GND	6	Signal 1
3	Signal 3	7	+5V
4	Signal 4	8	TxD

Danger: to prevent damage of the unit, use only accessories suitable for **LOGICDATA** motor controls.

Danger: be sure that the connector is plugged in correctly in the socket!

Danger: when components like sensors shall be disconnected from the LogicConnector DATA, be sure to unlock the 8pin connector on the cable properly! There is a fixing hook on this connector which must be pressed.

Pin	Description
TxD / RxD	Pins for communication (**LOGICDATA** communication protocol)
+5V, GND	Power supply lines
Signal 1,2	Digital I/O lines
Signal 3,4	Analogue input lines

Danger: the maximum load for the 5V circuit is 250mA, this means that the combined load on all interfaces must not exceed this value!

3.2   Functionality

- Table height display with configurable offset
- Compatibility to all **LOGICDATA** handsets
- Motor Auto-detection
- Plug detection
- Configurable stop conditions (overtemperature, overcurrent, timeout, limit switches)
- Configurable reset conditions
- Up to 6 memory positions (depending on handset)
- ISP (Intelligent system protection) with drive back function

LOGIC office

3.3 Intelligent System Protection (ISP) - Anti Pinch

Pay attention to the following instructions if you are using the new anti-pinch feature ISP (= Intelligent System Protection).

- To ensure optimal operation of the anti-pinch function during downwards travel, a mechanical braking system has to be integrated in the motor.
- Without such a braking system you have to expect decreased stop sensitivity under load. However, when the table is unloaded, the anti-pinch function will operate satisfyingly. Notice that the stop sensitivity is considerably influenced by mechanical construction of the table, motor and ambient conditions.
- The anti-pinch function drastically reduces the risk of injuries. However, we point out that we cannot be held liable in the case of mal operation, because the anti-pinch function interacts with mechanics, motor activity and electronics.

Danger: systems containing the **LOGICDATA** Control Unit with anti-pinch function will reduce the risk of injury. Be aware that **LOGICDATA** cannot completely eliminate this risk.

Note: the ISP-sensitivity and the ISP-cutoff value depend on the whole system (mechanical and electrical components). To evaluate the ISP-capability of a height adjustable table, please contact **LOGICDATA**!

3.4 Type Label

The following figure shows the type label and its location on the control box housing.

LOGICDATA
A-8530 Deutschlandsberg
Made in Hungary

CE 09

18.11.2009 8:52:24

Type:	COMPACT-3-EU
Revision:	xxx/xx.xx
Input: 230V/50Hz/5A	**Output:** 360VA/24V
Duty cycle: 2min on/18min off	
Settings:	LOG-PAR-xxx
	RevX
Ser. No.:	xxxxxxxxxxxxxxxxxxx

Note: specifications on the type label are dependent on the version of the COMPACT control box (see technical data).

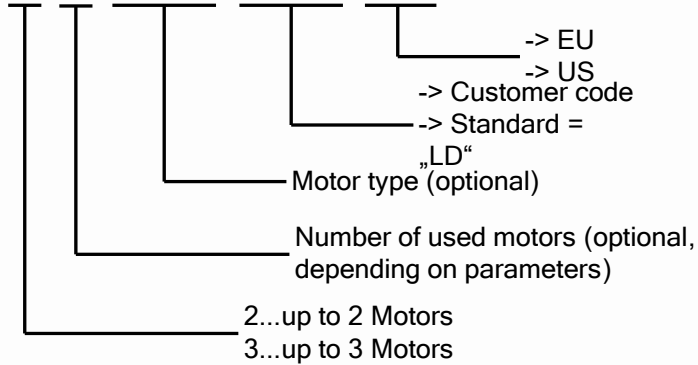LOGIC
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4. Accessories

LOGICDATA offers a wide range of optional accessories. Please contact **LOGICDATA** to get a catalogue with all **LOGICDATA** products.

5. Order Code

COMPACT-X-n-XXX-YYY-XX

-> EU
-> US
-> Customer code
-> Standard = „LD"
Motor type (optional)

Number of used motors (optional, depending on parameters)

2...up to 2 Motors
3...up to 3 Motors

6. Final Disposal

Heed following disposal instructions when disposing of the COMPACT control box:

Note: the COMPACT motor control box is electrical or electronic equipment according to directive 2002/96/EC and is therefore marked with the symbol depicted on the left.

Note: ensure eco-friendly disposal of all the control unit components (separate the plastic and electronic parts for collection).

Also ensure eco-friendly disposal of all the other components (drives, cables, etc.).

7. Standards

Europe
- DIN EN 60335-1:2002 + A11:2004 + A1:2004 + A12:2006 + A2:2006 + A13:2008
- DIN EN 61000-6-3*VDE 0839-6-3: 2007 09
- DIN EN 61000-6-2*VDE 0839-6-2: 2006 03
- DIN EN 61000-3-2:2006
- DIN EN 61000-3-3:2007
- SELV according to EN60335-1

United States of America and Canada
- cULus 60950
- CSA C22.2 60950-1-03

Australia
- IEC 60335-1:2006
- DIN EN 61000-6-3*VDE 0839-6-3: 2007 09
- DIN EN 61000-6-2*VDE 0839-6-2: 2006 03

Note: this product is RoHS compliant according to directive 2002/95/EC!

Note: this product is REACH compliant according to directive 2006/121/EC (Edict 1907/2006)

8. Manufacturer Information

LOGICDATA	Tel.: +43 (0)3462 5198 0
Electronic & Software Entwicklungs GmbH	Fax: +43 (0)3462 5198 530
Wirtschaftspark 18	Email: office@logicdata.at
A-8530 Deutschlandsberg	www.logicdata.at