LOGICDATA
MOTION FOR YOUR LIFE

COMPACT^{eco}

Document Rev1

Datasheet

LOGIC office

Control unit for
an Electric
Height-Adjustable
Desk

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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
- Table height display with configurable offset
- Up to 6 memory positions (depending on handset)
- Up to 2 motor groups
- ISP (Intelligent System Protection)
- Enhanced Drive Comfort
- Safety area
- Low speed area
- Plug detection and automatic detection of the number of connected drives (depending on used actuator type)
- Configurable reset conditions
- Configurable stop conditions (overtemperature, overcurrent, timeout, limit switches)
- 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 COMPACT^{eco} control unit under any circumstances. There is a danger of electric shock.

Caution: only use the power cord supplied with the control unit. Check that it is not damaged. Do not ever operate the COMPACT^{eco} control unit if the power cord is damaged.

Caution: the COMPACT^{eco} control unit may only be operated with mains voltage as specified on the type plate.

COMPACT^{eco} control units are also available for the mains voltages used in other countries. Detailed information is provided in the datasheet!

Danger: The control unit must be mounted before commissioning and operation.

Caution: When installing the COMPACT^{eco} and putting it into operation, be sure that the COMPACT^{eco} is acclimatized to the temperature and humidity values for operation, shown in the datasheet!

Caution: do not open the COMPACT^{eco} control unit under any circumstances. There is a danger of electric shock.

Danger: in the event of a fault, please contact customer service immediately. Only original spare parts may be used for repairing the control units. Parts may only be replaced by qualified service technicians, otherwise the warranty/guarantee shall be null and void.

Danger: do not expose the COMPACT^{eco} control unit to moisture, drips or splashes.

Caution: only clean the COMPACT^{eco} control unit with a dry or slightly moist cloth. Before cleaning, you must always unplug the power cord.

Caution: unplug the power cord during a thunderstorm or if you do not intend to use the desk for a longer period. The control unit might otherwise be damaged by power surges.

Danger: if strange smells or fume occur, unplug the power cord immediately. Contact LOGICDATA.

Note: information about usage of the COMPACT^{eco} can be found in the user manual which is valid for the firmware version of the COMPACT^{eco}.

2 Type and dimensions

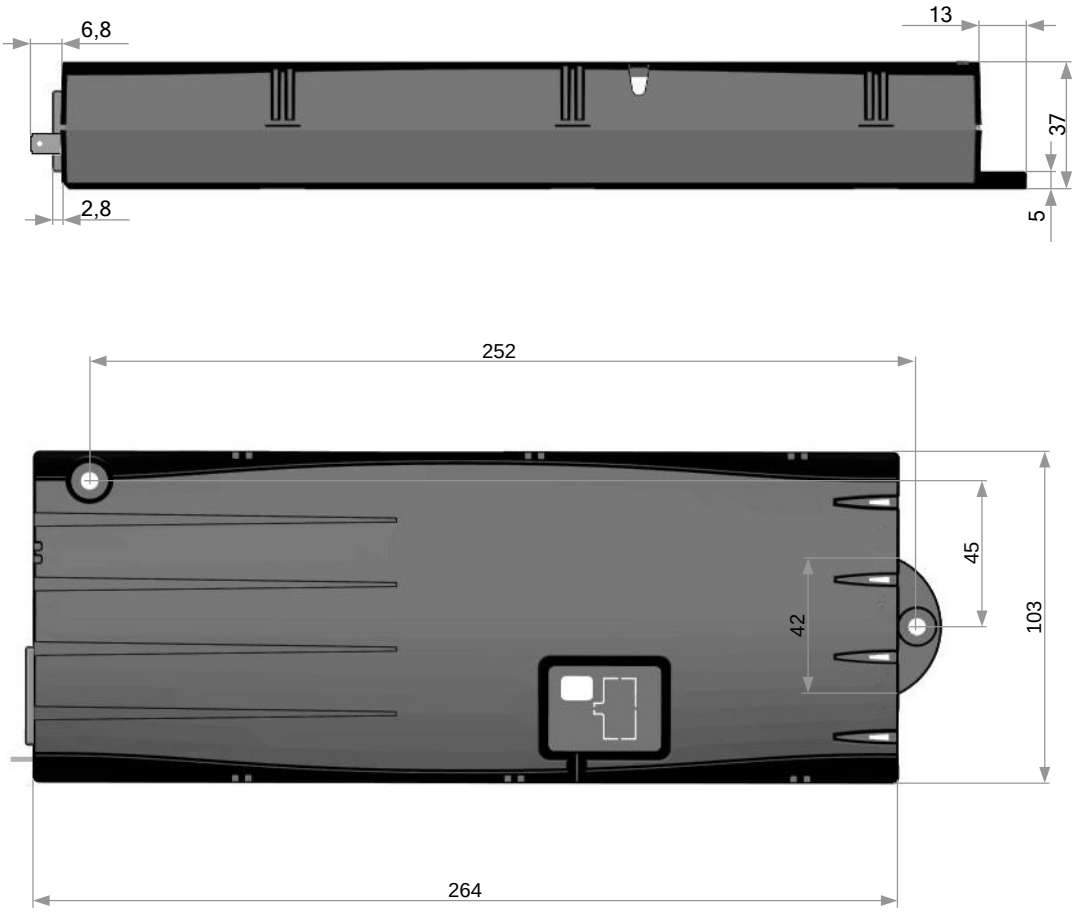


Figure 1: Dimensions in mm; Tolerances according to DIN ISO 2768-1 c

A drill template can be found in the Mounting Instructions, available as separate document.

3 Technical Data

General

Supply voltage	EU: 207-253V / 50-60Hz US: 90-127V / 50-60Hz
Nominal voltage	EU: 230V / 50Hz US: 120V / 60Hz
Standby power, primary (typical)	≤0,3 W
Operating voltage for internal and external electronics and Hall sensors	5VDC ±10% 250mA
Operating voltage for internal and external electronics and Hall sensors in standby mode (average)	5VDC ±10% 4mA
Precision of Motor current measurement @ 100% Output Voltage and 4-8A per Motor	±15%
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] Tolerances according to DIN ISO 2768-1 c	264 x 103 x 37

COMPACT-e-3

Switching cycles Depicted currents are sums over all motor channels	**Hi Power cycle:** 20s UP: 19A@20V 380W 20s DOWN: 7A@33V 231W Pause: 9min **Normal cycle 1/9:** 30s UP: 15A@24V 360W 30s DOWN: 7A@33V 231W Pause: 9min **Normal cycle 2/18:** 2min move: 7A@33V 231W Pause: 18min
Max. current per motor channel	8A Maximum sum current restricted according to values shown above
Weight (typical)	523g

COMPACT-e-2

Switching cycles Depicted currents are sums over all motor channels	**Hi Power cycle:** 20s UP: 15A@20V 300W 20s DOWN: 4A@33V 132W Pause: 9min **Normal cycle 1/9:** 30s UP: 12A@24V 288W 30s DOWN: 4A@33V 132W Pause: 9min **Normal cycle 2/18:** 2min move: 4A@33V 132W Pause: 18min
Max. current per motor channel	8A Maximum sum current restricted according to values shown above
Weight (typical)	418g

3.1 Pin assignment

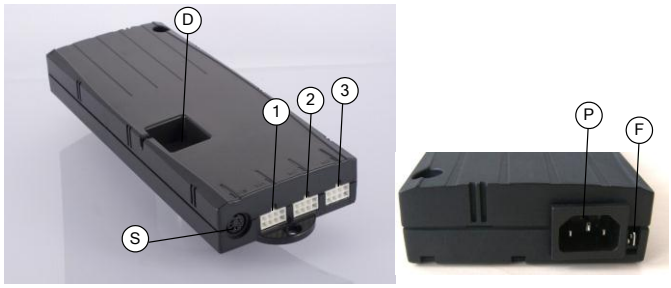


Figure 2: Sockets

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 LogicConnector DATA for sensors, squeeze lines 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

1	Hallsensor 1	5	Hallsensor 2, Limit Switch 1
2	+5V	6	SYN
3	Limit Switch 2	7	GND
4	Motor +	8	Motor -

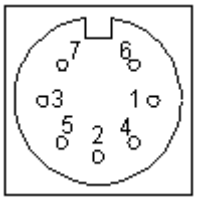
Figure 3: Pin assignment of motor socket

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: please observe the maximum allowable loads (currents) for the 5V circuit in normal operation and standby, shown in the technical data. The load sum attached on all interfaces of the control unit must not exceed the values for the particular operating state!

3.1.2 Handswitch socket



1	RxD	5	HS2
2	HS3	6	TxD
3	HS1	7	+5V
4	HS4	Shell	GND

Figure 4: Pin assignment of handswitch socket; 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: please observe the maximum allowable loads (currents) for the 5V circuit in normal operation and standby, shown in the technical data. The load sum attached on all interfaces of the control unit must not exceed the values for the particular operating state!

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

3.1.3 LogicConnector DATA

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

Figure 5: Pin assignment of LogicConnector DATA

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: please observe the maximum allowable loads (currents) for the 5V circuit in normal operation and standby, shown in the technical data. The load sum attached on all interfaces of the control unit must not exceed the values for the particular operating state!

3.2 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).

Note: please note the following for maximizing ISP functionality:

To ensure the best possible pinch protection, a **mechanical brake** must be fitted that is applied when the electric height-adjustable desk moves down.

Note: without a mechanical brake, cut-out sensitivity may be reduced under load. However, if there is no load on the desktop, ISP will function properly even without a brake.

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!

Danger: in spite of ISP being in place, there may still be a risk of pinching in exceptional cases, as it is not only the control unit, but also the interaction between the mechanical and electronic systems that is responsible for cutting out the motor. In addition, the mechanical components, motor and ambient conditions all affect cut-out sensitivity.

As the control unit manufacturer, LOGICDATA cannot therefore eliminate this residual risk completely or accept any liability.

3.3 Type plate

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

Figure 6: Type plate (example) and its position on the COMPACT^{eco}

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

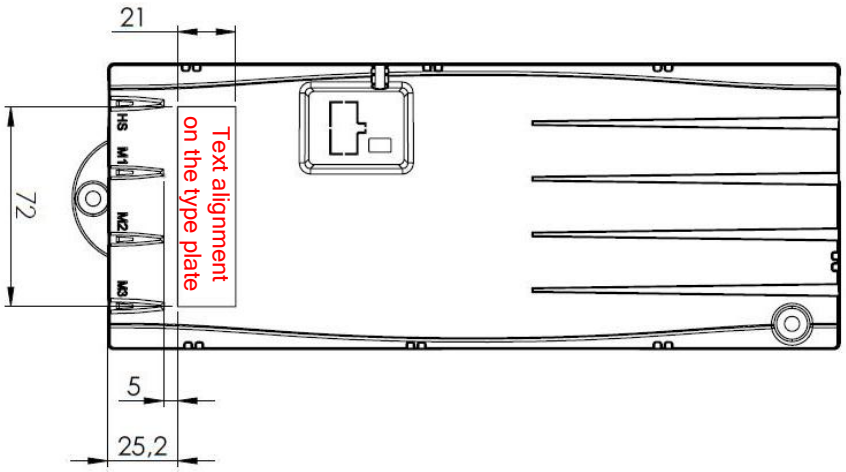


Figure 7: Text alignment on the type plate of COMPACT^{eco}

4 Accessories

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

5 Order code

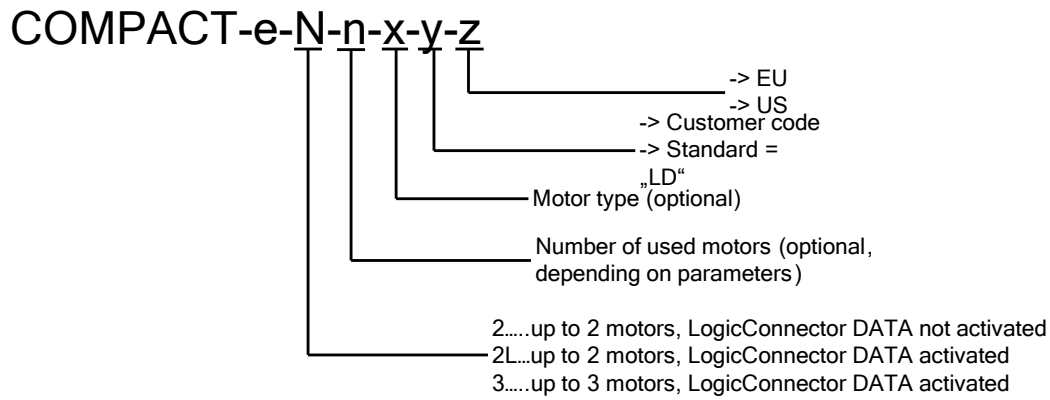


Figure 8: Order code

6 End of life disposal

When you no longer require the COMPACT^{eco} control unit, please note the following for disposal:

Note: The COMPACT^{eco} control unit is electrical or electronic equipment according to directive 2002/96/EC and 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

- EN 60335-1:2012
- EN 61000-6-3:2007
- EN 61000-6-2:2005
- EN 61000-3-2:2006+A1:2009+A2:2009
- EN 61000-3-3:2008
- EN 62233:2008
- DIN EN 13849-1:2007, Performance Level b
- LVD (Low Voltage Directive); EU Directive 2006/95/EC
- EMC (Electromagnetic Compatibility) according to EU Directive 2004/108/EC

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)

USA and Canada

- UL 60950-1, 2nd Edition, 2007-03-27
  (Information Technology Equipment - Safety - Part 1: General Requirements)
- CSA C22.2 No. 60950-1-07, 2nd Edition, 2007-03
  (Information Technology Equipment - Safety - Part 1: General Requirements)

Australia

- IEC 60335-1:2010 (Fifth Edition)

8 Manufacturer

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