

# Datasheet

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## **Impressum**

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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 4 memory positions (depending on handset)
- Up to 2 motor groups
- APS (Active Protection System)
- · Enhanced drive comfort
- Safety area
- · Low speed area
- Plug detection and automatic detection of the number of connected drives
- Configurable stop conditions (overtemperature, overcurrent, timeout limit switches)
- Additional functions are available, depending on the handswitch model used
- (e.g. saving desktop positions, adjusting the desktop to saved positions, etc.)



## DANGER

#### Danger! Electric shock.

Do not open the ControlAdvance unit under any circumstances. There is a danger of electric shock.



**DANGER** 

Only use the power cord supplied with the control unit. Check that it is not damaged. Do not ever operate the ControlAdvance unit if the power cord is damaged.



**DANGER** 

The ControlAdvance control unit may only be operated with mains voltage as specified on the type plate.

ControlAdvance control units are also available for the mains voltage used in other countries.

Detailed information is provided in the datasheet!



The control unit must be mounted before commissioning and operation.



When installing the ControlAdvance and putting it into operation, be sure that the ControlAdvance is acclimatized to the temperature and humidity values for operation, shown in the datasheet!



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.



Do not expose the ControlAdvance control unit to moisture, drips or splashes.



Only clean the ControlAdvance unit with a dry or slightly moist cloth. Before cleaning, you must always unplug the power cord.

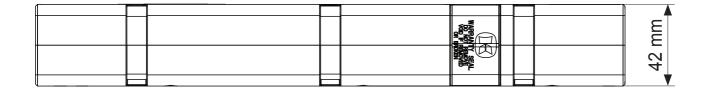


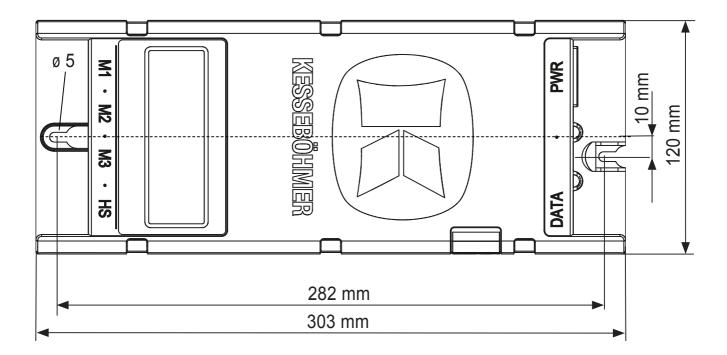
Unplug the power cord during thunderstorm or if you do not intend to use the desk for a longer period. The control unit might otherwise be damaged by power surges.

Notice

Information about usage of the ControlAdvance can be found in the user manual which is valid for the firmware version to the ControlBasic.

# 2 Type and dimensions





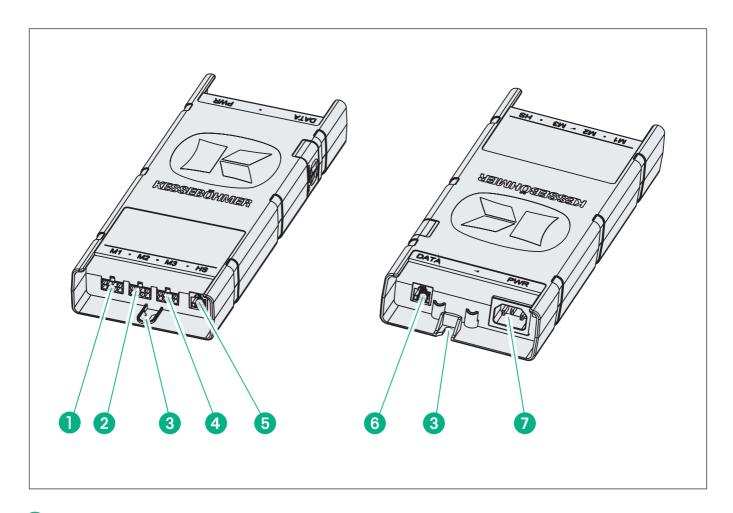
A drill template can be found in the mounting instructions, available as separate document.

# 3 Technical Data

Supply voltage	ELL: 207 /255 4V / 50 /60Hz
Supply voltage	EU: 207/255,4V / 50/60Hz
	US: 90/127V / 50/60Hz
Standby power, primary (typical)	<0,1W
Operating voltage for internal and external	5VDC±15% / 600mA
electronics and hall sensors	
Precision of motor current measurement	10%
100% output voltage and 4-8A per motor	
Ambient temperature	0-40°C
Relative humidity (for operation)	5-85% (non condensing)
Storage and transport temperature	-40-85°C
Relative humidity (for storage)	5-90% (non condensing)
IP class	IP 20
Dimension (L x B x H) [mm]	303 x 120 x 42
Tolerances according to	DIN 16742
Control	Normal cycle 2/18
	Movement: 2minutes 7A/33V/231W
	Break: 18minutes
Max. current per motor channel	9A
	Total current restricted according to
	values shown above.
Weight	550g

#### **Technical Data**

## 3.1 PIN assignment



- Motor socket M1
- 2 Motor socket M2
- 3 Mounting holes
- 4 Motor socket M3
- 6 Handset socket HS
- 6 Data Interface
- Mains socket PWR



It is not allowed to connect self-constructed products to Kesseböhmer motor controls. To prevent damage of the unit, use only components suitable for Kesseböhmer motor controls.

#### 3.1.1 Motor socket

Pin assignment of motor socket



- 1 Motor OUTA
- 6 SYNC
- 2 FSRRS
- 7 GND
- 3 5V
- 8 Motor OUTB
- 4 Hallsensor 1
- 5 Hallsensor 2



To prevent damage of the unit, use only motors / motor cables suitable for Kesseböhmer motor controls.

#### Pin

Motor OUTA; OUTB Hallsensor 1,2 5V, GND SYNC FSRRS

## Description

Power supply lines for motors
Sensor input lines for hall sensors
Power supply lines for Hallboard
Synchronisation signal (digital output)
Response signal from hallboard

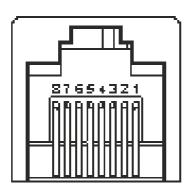
(input digital / analog)



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 or the control unit must not exceed the values for the particular operating state!

#### 3.1.2 Handswitch socket

Pin assignment of handswitch socket



- 1 S1 2 S2 3 NC 4 GND 5 TX
- 6 5V
- 7 NC8 RX



To prevent damage of the unit, use only handswitches suitable for Kesseböhmer motor controls.

Pin	Description
S1, S2	switch inputs
TX, RX	digital communication
5V, GND	Power supply lines
NC	Pin3+7 not assigned



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 or the control unit must not exceed the values for the particular operating state!

#### 3.1.3 Connector DATA

Pin assignment of motor socket



- 1 Hallsensor 1
- 2 5V
- 3 FSRRS
- 4 Motor OUTA
- 5 Motor OUTB

- 6 GND
- 7 SYNC
- 8 Hallsensor 2



To prevent damage of the unit, use only accessories suitable for ControlAdvance motor controls.



Be sure that the connector is plugged in correctly in the socket!



When components like sensors shall be disconnected from the Connector 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

Motor OUTA; OUTB
Power supply lines for motors
Hallsensor 1,2
Sensor input lines for hall sensors
5V, GND
Power supply lines for Hallboard
SYNC
Synchronisation signal (digital output)

FSRRS Response signal from hallboard (input digital / analog)



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 or the control unit must not exceed the values for the particular operating state!

## 3.2 Activ Protection System (APS)

Pay attention to the following instruction if you are using the new APS (Activ Protection System)

Notice

Please note the following for maximizing APS 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.

#### **Technical Data**

#### **Notice**

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

#### **Notice**

The APS-sensitivity and the APS-cut-off value depend on the whole system (Mechanical and electrical components). To evaluate the APS -capability of a height adjustable table, please contact Kesseböhmer!



In spite of APS 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.

The control unit manufacturer, Kesseböhmer 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 ControlAdvance housing.

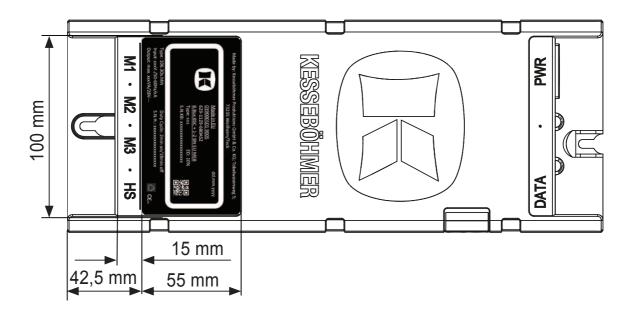
Type plate (example) and ist position on the ControlAdvance



Notice

Specifications on the type label are dependent on the version of the Control-Basic control box (see technical data).

Text alignment on the type plate of ControlAdvance



## 4 End of life disposal

When you no longer require the ControlAdvance control unit. Please note the following for disposal:



The ControlAdvance unit is electrical or electronic equipment according to directive 2012/19/EU and therefor marked with the symbol depicted on the left.



Ensure eco-friendly disposal of all the control unit components. Separate the plastic and electronic parts for collection.



This produkt is RoHS compliant according to directive 2011/65/EC!



This product is REACH compliant according to directive 2006/121/EC (Edict 1907/2006

## 5 Standards

#### Europe

- IEC 60335-1:2010 (EN:2012)
- IEC 61000-6-3:2016 (EN:2011)
- IEC 61000-6-2:2008-01-01 (EN:2006)
- IEC 61000-3-2:2005-2009 (EN:2006-2011)
- EN 61000-3-3:2013 (EN:2009)
- EN 62233:2005 (EN:2008-2009)
- DIN EN ISO13849-1:2016-06
- LVD (Low Voltage Directive); EU Directive 2006/95/EC
- EMC (Electromagnetic Compatibility) according to EU Directive 2004/108/EC

#### USA

• UL 60950-1:2007-03-27 (Information technology equipment - Safety - Part 1: General requirement)

#### Canada

 CAN/CSA-C22.2 No. 60950-1B AMD 2:2014
 (Information Equipment - Safety - Part 1: General Requirements (BI-National standard, with UL 60950-1)

#### Australia

AS/NZS 60335.1:2011
 (Household and similar electrical appliances - Safety General requirements (IEC 60335-1 Ed5,MOD)

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