STÖBER

I/O Terminal Module LEA 5000

Commissioning Instructions

Installation

Connecting

V 5.6-E or later

04/2012 en

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1 Overview

terminal module LEA 5000
ID No. 49029

Terminals

- 8 binary inputs
- 8 binary outputs

2 Notes on Safety

The devices may cause risks. For these reasons, comply with the following:

- The safety notes listed in the following sections and points
- The technical rules and regulations.

In addition, always read the appropriate documentation. STÖBER ANTRIEBSTECHNIK GmbH + Co. KG accepts no liability for damages caused by non-adherence to the instructions or applicable regulations. Subject to technical changes to improve the devices without prior notice. This documentation is purely a product description. It does not represent promised properties in the sense of warranty law.

2.1 Component part of the product

The technical documentation is a component part of a product.

- Since the technical documentation contains important information, always keep it handy in the vicinity of the device until the machine is disposed of.
- If the product is sold, disposed of, or rented out, always include the technical documentation with the product.

2.2 Operation in accordance with its intended use

Use of the LEA 5000 accessory is only permitted with the POSIDRIVE® FDS 5000 inverter. Unintended use includes use with other electronic devices, particularly other inverters.

2.3 Qualified personnel

Since the devices may harbor residual risks, all configuration, transportation, installation and commissioning tasks including operation and disposal may only be performed by trained personnel who are aware of the possible risks.
Personnel must have the qualifications required for the job. The following table lists examples of occupational qualifications for the jobs:

Activity	Possible occupational qualifications
Transportation and storage	Worker skilled in storage logistics or comparable training
Configuration	- Graduate engineer (electro-technology or electrical power technology) - Technician (m/f) (electro-technology)
Installation and connection	Electronics technician (m/f)
Commissioning (of a standard application)	- Technician (m/f) (electro-technology) - Master electro technician (m/f)

Activity	Possible occupational qualifications
Programming	Graduate engineer (electro-technology or electrical power technology)
Operation	- Technician (m/f) (electro-technology) - Master electro technician (m/f)
Disposal	Electronics technician (m/f)

Tab. 2-1: examples of occupational qualifications

In addition, the valid regulations, the legal requirements, the reference books, this technical documentation and, in particular, the safety information contained therein must be carefully

- read
- understood and
- complied with

2.4 Installation and connection

Installation and connection work are only permitted after the device has been isolated from the power!
The accessory installation instructions allow the following actions during the installation of accessories:

- The housing in the upper slot can be opened
- The housing in the bottom slot can be opened.

Opening the housing in another place or for other purposes is not permitted.
The accessory installation instructions allow the following actions during the installation of accessories:

- The housing in the upper slot can be opened.

Opening the housing in another place or for other purposes is not permitted.

Use only copper lines. For the line cross sections to be used, refer to DIN VDE 0298-4 or DIN EN 60204-1 Appendix D and Appendix G.
Protect the device from falling parts (pieces of wire, leads, metal parts, and so on) during installation or other tasks in the switching cabinet. Parts with conductive properties inside the inverter can cause short circuits or device failure.
The motor must have an integrated temperature monitor with basic isolation in acc. with EN 61800-5-1 or external motor overload protection must be used.
The permissible protection class is protective ground. Operation is not permitted unless the protective conductor is connected in accordance with the regulations.
Comply with the applicable instructions for installation and commissioning of motor and brakes.

2.5 Commissioning, operation and service

Remove additional coverings before commissioning so that the device cannot overheat. During installation, provide the free spaces specified in the projecting manuals to prevent the inverter from overheating.
The housing of the drive controller must be closed before you turn on the supply voltage. When the supply voltage is on, dangerous voltages can be present on the connection terminals and the cables and motor terminals connected to them. Remember that the device is not necessarily de-energized after all indicators have gone off.

When network voltage is applied, the following are prohibited:
- Opening the housing
- Connecting or disconnecting the connection terminals
- Installing accessories

Before carrying out any work on the machine, observe all the following five safety regulations in the above-mentioned sequence:
1. Enable. Ensure that you also activate the auxiliary circuits.
2. Secure against switching on.
3. Ensure that the parts are de-energized.
4. Earth and short-circuit.
5. Cover or isolate any live neighboring parts.

Information
Please note that the discharge time for the intermediate circuit capacitors is 5 min. You can only ensure that the parts are de-energized after this time.

You can then start your work on the drive controller. Repairs may only be performed by STÖBER ANTRIEBSTECHNIK GmbH + Co. KG.
Send defective devices together with a fault description to:
STÖBER ANTRIEBSTECHNIK GmbH + Co. KG
Department VS-EL
Kieselbronner Str.12
75177 Pforzheim
GERMANY

2.6 Disposal

Please comply with the latest national and regional regulations! Dispose of the individual parts separately depending on their nature and currently valid regulations such as, for example:
- Electronic scrap (PCBs)
- Plastic
- Sheet metal
- Copper
- Aluminum

2.7 Presentation of notes on safety

NOTICE

Notice

means that property damage may occur

▶ if the stated precautionary measures are not taken.

⚠ CAUTION!

Caution

with warning triangle means that minor injury may occur

▶ if the stated precautionary measures are not taken.

⚠ WARNING!

Warning

means that there may be a serious danger of death

▶ if the stated precautionary measures are not taken.

⚠ DANGER!

Danger

means that serious danger of death exists

▶ if the stated precautionary measures are not taken.

Information
indicates important information about the product or a highlighted portion of the documentation which requires special attention.

3 Installation

⚠ WARNING!

Danger of injury/death and property damage due to electric shock!

▶ Before installing accessories, turn off all voltage supplies! Then wait 5 minutes for the DC link capacitors to discharge. Never begin with accessory installation until after this!

NOTICE

Danger of property damage from incorrect installation of the devices!

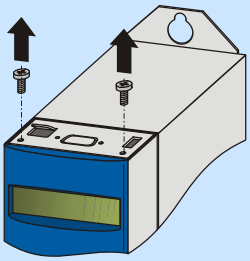
▶ It is essential to comply with the following installation instructions to avoid damage to the devices.

You will need the following for installation of LEA 5000:

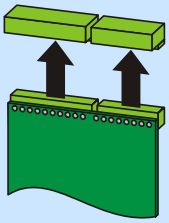
- The covering plate which is included with the LEA 5000 accessory
- Phillips screwdriver

Installation of a LEA 5000 in an FDS 5000

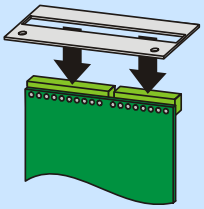
1 Remove the mounting screws and take off the cover plate:



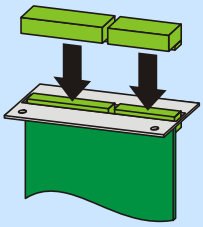
2 Disconnect the plug connectors from the terminal extension LEA 5000.



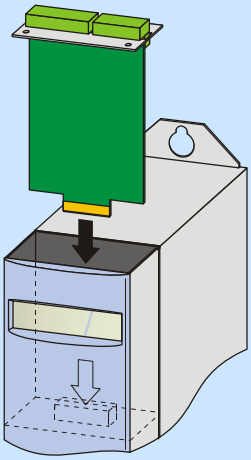
3 Place the plate over the base strips. Check alignment of the plate!



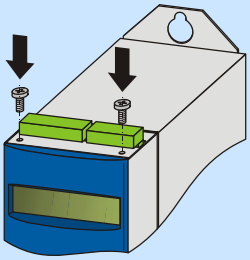
4 Reconnect the plug connectors to the terminal extension.



5 Guide the option board into the inverter so that the gold contacts slide into the black connector:



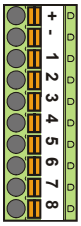
6 Secure the metal plate to the inverter with the mounting screws:



⇨ You have now installed the accessory.

4 Connection

Terminal description X103D - LEA 5000

Pin		Designation	Function	Data
	+	+ 24 V	Voltage supply	$U_{E\ max}$ = 20.4–28.8 V $I_{E\ max}$ = 1.5 A
	-	GND		
	1	BA3	Binary output	$I_{A\ max}$ = 50 mA $T_{A\ min}$ = 1 ms
	2	BA4		
	3	BA5		
	4	BA6		
	5	BA7		
	6	BA8		
	7	BA9		
	8	BA10		

Information
When the 24 V power fails, binary inputs BE6 to BE13 have signal status 0 (regardless of the physical signal state).

Terminal description X103E – LEA 5000

Pin		Designation	Function	Data
	9	BE6	Binary input	Reference: Pin – (GND) of terminal X103D High level: 12–30 V Low level: 0–8 V $U_{E\ max}$ = 30 V $T_{A\ min}$ = 1 ms $I_{E\ max}$ = 3 mA with $U_{E\ max}$
	10	BE7		
	11	BE8		
	12	BE9		
	13	BE10		
	14	BE11		
	15	BE12		
	16	BE13		

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Address registers

Always up to date on the internet: *www.stober.com* → contact

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- **Global presence for advice and marketing in about 25 countries**
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Technische Änderungen vorbehalten
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