

LinMot®



B01-C1x00 ControlBox User's Guide

*Eine Deutsche Version kann unter <http://www.linmot.com> bezogen werden!
Please visit <http://www.linmot.com> to check for the latest version of this document!*

This document applies to the following devices:

B01-C1x00 ControlBox

which can be used with the following drives

C12x0-xx-xx-xxx (SG6)

C11x0-xx-xx-xxx (SG7)

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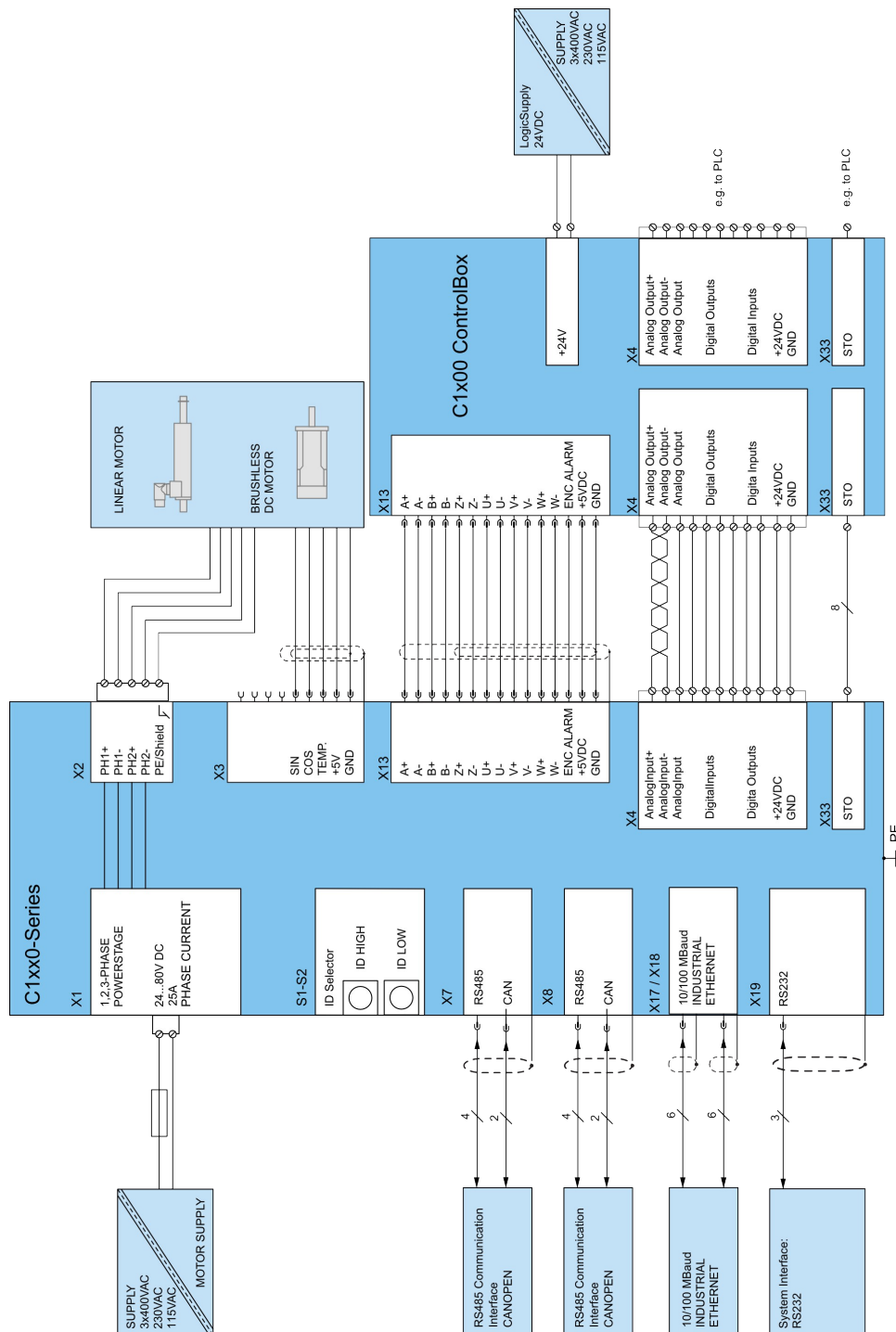
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1 System Overview

The C1x00 Controlbox is a commissioning accessory for all LinMot C1xx0 drives. It includes:

- A galvanically isolated 24VDC supply for drives with the -1S safety option,
- An ABZ Encoder to simulate motors with this type of encoder
- A Hallswitch simulator to simulate rotary motors with this commutation type
- Digital and analog I/Os with LED indicators

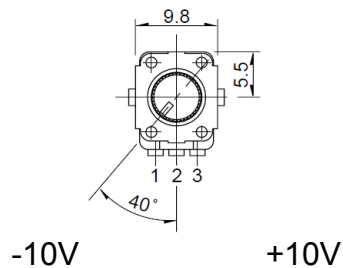


2 Description of the connectors / Interfaces

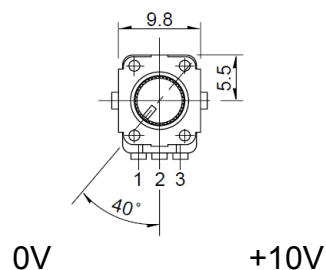
2.1 X4

X4 Logic Supply / IO Connection				
X4.11 X4.10 X4.9 X4.8 X4.7 X4.6 X4.5 X4.4 X4.3 +24VDC DGND		11 10 9 8 7 6 5 4 3 2 1	AnIn- X4.11 AnIn+ X4.10 AnIn X4.9 In X4.8 In X4.7 In X4.6 In X4.5 Out X4.4 Out X4.3 +24VDC Supply GND Supply	Analog Output differential Analog Output differential Analog Output single ended Output Output Output Output Input Input Logic Supply Ground
Spring cage connector	Logic Supply: 24 VDC Inputs: 24 VDC Outputs: 24 VDC Analog output differential: -10V..10V Analog Output single ended: 0V..10V			

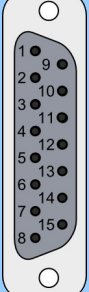
X4.10/X4.11



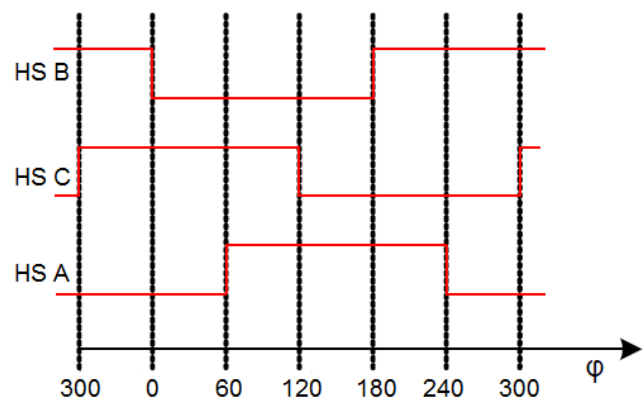
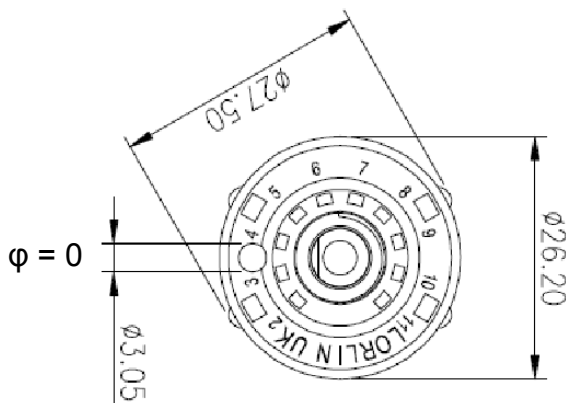
X4.9



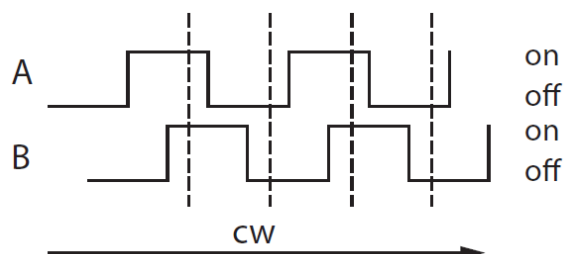
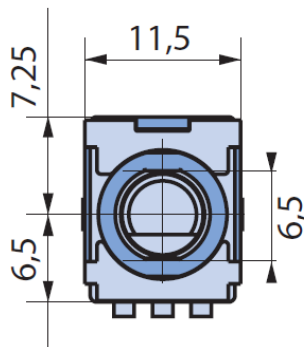
2.2 X13

X13 External Position Sensor and Differential Hall Switches			
	1	9	N.C.
	2	10	A+
	3	11	B+
	4	12	Z+
	5	13	Encoder Alarm
	6	14	U+
	7	15	V+
	8		W+
	case		W- Shield
DSUB-15 (m)	ABZ Position Encoder Outputs: RS422 Differential Hall Switch Outputs: RS422 Enc. Alarm Out: 5V		

X13.6/7/8 .. X13.13/14/15



X13.2/3/4 .. X13.9/10/11



Z pulse via push-button, 15 Pulses per revolution

2.3 X33

X33 Safety Relays (only with the -1S option)				
X33.4/8 Ksr+ X33.3/7 Ksr- X33.2/6 Ksr f+ X33.1/5 Ksr f-	 STO Relays	4 / 8 3 / 7 2 / 6 1 / 5	Ksr + Ksr - Ksr f+ Ksr f-	Safety Relay 1 / 2 Input positive Safety Relay 1 / 2 Input negative Safety Relay 1 / 2 feedback positive Safety Relay 1 / 2 feedback negative
spring cage connector				

3 Physical Dimension and operating conditions

C1x00 ControlBox		
Width	mm (in)	178 (7)
Height	mm (in)	62 (2.4)
Depth	mm (in)	103 (4.1)
Case	IP	20
Storage Temperature	°C	-25...40
Transport Temperature	°C	-25...70
Operating Temperature	°C	0...50
Relative humidity	%	95 (non-condensing)

4 Power Supply Requirement

Signal Power Supply

The logic supply needs a regulated power supply with a nominal voltage of 24 VDC. The voltage must be between 22 and 26 VDC.

Current consumption:

- min. 0.5A (no load on the outputs)
- typ. 1.5A (all outputs "on" with 100mA load)

5 Ordering Information

Device	Description	Art. No.
B01-C1x00 ControlBox	ControlBox for Linmot C1xx0 Drives	0150-2130

6 International Certifications

Certifications	
Europe 	See chapter "Declaration of Conformity CE-Marking"

7 Declaration of Conformity CE-Marking

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Products: LinMot® Drive Accessory

Type	Art.-No.
B01-C1x00 ControlBox	0150-2130

The product must be mounted and used in strict accordance with the installation instruction contained within the installation guide, a copy of which may be obtained from NTI AG.

I declare that as the authorized representative, the above information in relation to the supply/manufacture of this product is in conformity with the stated standards and other related documents in compliance with the protection requirements of the Electromagnetic Compatibility (EMC) Directive 2014/30/EU.

Standards Complied with:

EN 61000-6-2		Compliance Criteria	Immunity for industrial environment
	EN 61000-4-2	B	Electrostatic discharge immunity (ESD)
	EN 61000-4-3	A	Radiated electromagnetic field immunity
	EN 61000-4-4	B	Fast transients / burst immunity (EFT)
	EN 61000-4-6	A	Conducted radio frequency immunity
	EN 61000-4-8	A	Power frequency magnetic field immunity
EN 61000-6-4		Class	Emission for industrial environment
	EN 55011	Table 3b	Radiated Emission
	EN 55022	Class A	Radiated Emission
	CISPR 22	Am 1, table 9	Radiated Emission

Company: NTI AG

Spreitenbach, April 11, 2016



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8 Contact Addresses

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Please visit <http://www.linmot.com/> to find the distributor closest to you.

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