GETRIEBEBAU NORD
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Technical Information / Datasheet

Level adapter PCB HTL - RS422

Part number: 18 552 090

Level converter HTL – RS422

NOTICE

Validity of the document

This document is only valid in combination with the operating instructions for the relevant drive unit. All of the information that is relevant for a safe start-up of this module and the drive unit is only available under these conditions.

Scope of delivery

1 x	Module	PCB, lacquered
Accessories required		
1 x	Mounting kit	OBW MOUNTING KIT PCB 185520xxx (Part No. 18552160)

Usage area

The module, which is intended for installation in the motor terminal box, is used to convert HTL or TTL signals into complementary signals with RS422 levels. With this form of signal, the probability of errors in data transmission is considerably reduced. Use of this module is recommended for cable lengths in excess of 30 m.

Technical data

Module

Ambient temperature	-25°C … +75 °C
Protection class	IP00

Weight	20 g
Dimensions [mm]	L x W x H: 46 x 35 x 22

Electrical data

Electrical connection	Spring terminals
Input voltage	10 … 30 V DC
Input level "0"	≤ 0.8 V
Input level "1"	≥ 2.4 V
Max. output voltage	+ 5.5 V DC
Typical output	current: 45 mA (120 Ω) Maximum: 100 mA

Cross-section Connection terminals	20-16 AWG (0.5 – 1.5 mm^2)
Power consumption	10 mA (own consumption)
Max. frequency	100 kHz
Max. cable lengths RS422 Frequency inverters	 1200 m 500 m at 100 kHz

Signal delay	
Rising flank	250 ns
Falling flank	750 ns
Protection	
Power supply	Reverse polarity protected
Outputs	Short-circuit protected
Overtemperature	Switch-off at 150°C

Tests	
EN61000-4-2 ESD	4 kV contact discharge 8 kV air discharge
EN61000-4-4 Burst	1 kV signal cables 2 kV power supply
EN61000-4-5 Surge	1 kV signal cables 2 kV power supply

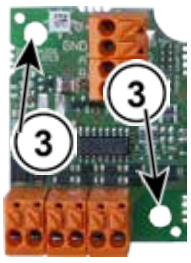
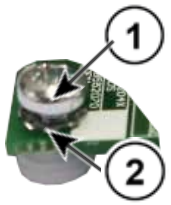
Installation

Installation location	In motor terminal box
Mounting	Double screw fastening with installation kit (Part No.: 18552160) Installation kit consisting of: 2 x M4 screws; 2 x Toothed washers; 6 x Plastic washers  Illustration of installation kit
Tools	Slot-head screwdriver 0.6 x 3.5

Information

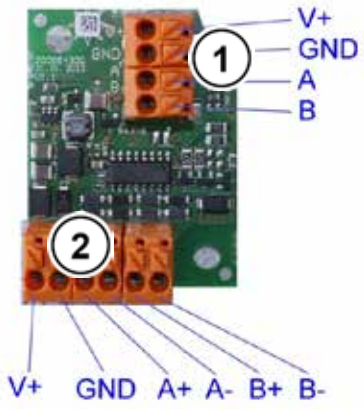
Motor terminal box

The PCB is installed in an adequately dimensioned motor terminal box. Installation in a one-piece terminal box (EKK) is not possible.

1.	Insert the M4 screws (1) with toothed washers (2) from above into the holes provided (3).		
2.	Put 3 plastic washers (1) onto each screw from the underside.		
3.	Screw the PCB into the terminal box.		

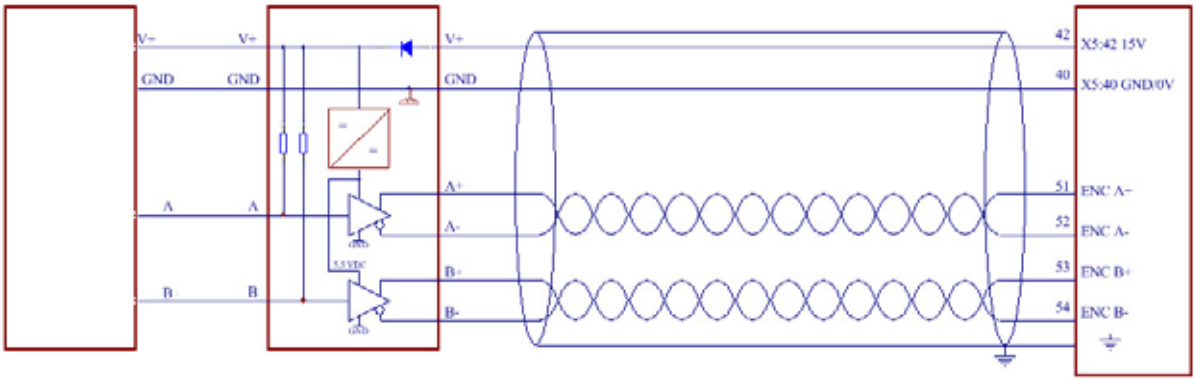
Connections

Connect the signal cable according to the adjacent illustration.



1	Incremental encoder
2	Frequency inverters

Electrical connection (example)



Incremental encoder	Level adapter PCB HTL - RS422	Evaluation device (e.g. frequency inverter)

Additional documentation and software (www.nord.com)