

Operating Instructions

# NORDAC SK IC1-232/485

## Interface Converter RS485 / RS232



**BU 0010 GB**  
Mat. Nr. 607 0102

# Getriebebau NORD

GmbH & Co. KG



## General

The interface converter **SK IC1-232/485** converts signals from RS485 to RS232. This converter is used when connecting a PC or laptop to a NORDAC frequency inverter. With the aid of NORD CON software the frequency inverter can be operated and assigned parameters. In addition to this, the software provides a user-friendly diagnosis tool with oscilloscope function to ensure optimisation of drive solutions.

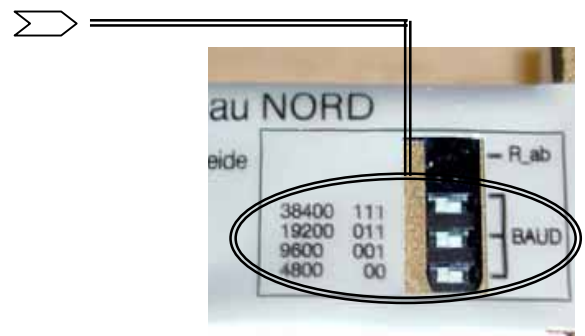


Depending on the type of NORDAC frequency inverter, a suitable connecting cable will be necessary to connect the frequency inverter to the interface converter (see Overview P.4). The converter is directly plugged into the RS232 port of the PC/laptop with its SUB-D socket. An LED displays when the +5V supply voltage is on. The converter can be supplied from the respective frequency inverter or the PC (USB port).

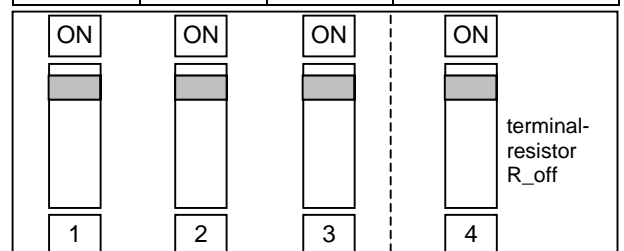
## Setting the baud rate

The baud rate can be set with a combination of 3 dip switches in the range from 4800 to 38400 bit/s and must be adjusted to the setting of the frequency inverter. The standard setting is 38400 bit/s, which enables the fastest data transfer. This also corresponds to the standard setting of the frequency inverter. The combination for the respective baud rate is shown on the converter. Switching state “1” corresponds to dip switch position “ON”.

If disturbances should occur in the transfer, this is caused by too long a cable length or too high a baud rate. The connection should be checked using a lower transfer rate. For this, the setting of the frequency inverter in parameter P511 must also be observed.



DIP-switch combination			baud-rate
1	1	1	38400 Baud
1	1	0	19200 Baud
1	0	0	9600 Baud
0	0	0	4800 Baud



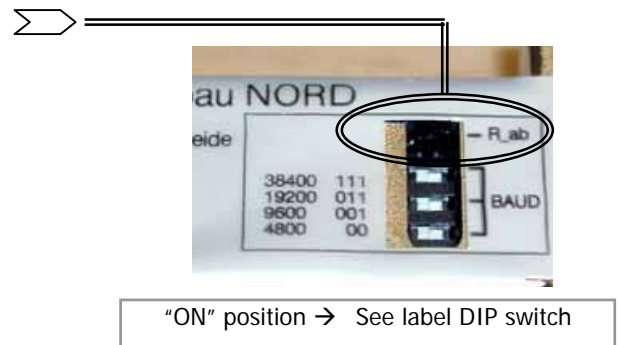
### Warning:



- The interface converter is not potential separated. The PC and/or frequency inverter is not therefore spared the effects of a short-circuit!!!
- It must be ensured that the interface converter is connected to only one 5V supply voltage. This may only be supplied either from the frequency inverter or from the “external 5V supply cable” !!!

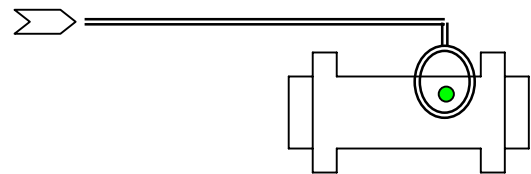
### Terminal resistor

A terminal resistor can be switched on at the interface converter using a dip switch. This terminal resistor is switched off as default setting. The dip switch position "ON" corresponds to a switched-on terminal resistor of 120 Ω.  
(DIP switch → See Figure P. 2)



### Supply voltage status

As soon as the +5V supply voltage of the interface connector is on, this status is displayed by a green LED.  
(Current consumption of the converter: 100mA)



### Information

The channel switching of 'send' and 'receive' occurs automatically.

### Accessories

#### External supply cable 5V:

A +5V supply voltage is required for connecting the *p-box* to a PC/laptop in combination with the interface converter. This can be provided by an additional connecting cable. The cable is connected to the USB port of the PC/laptop.

When using the interface converter on the frequency inverter, this takes its supply voltage directly from the frequency inverter and does not therefore have to be supplied externally.





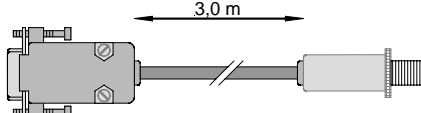


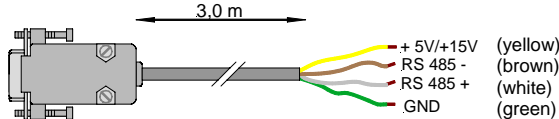


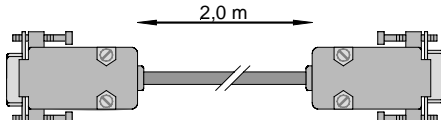


### Attention:



***It is important to ensure that there is only one supply voltage for the interface converter. Otherwise this can cause damage !!!***

When using the frequency inverters **vector mc**, **SK 300E** and **SK 700E** a supply voltage of +5V is already available. An external supply cable for the USB connection is not required in this case.

Connection options for the frequency inverter to the PC or laptop for operation with NORDCON :

PC / LapTop	interface converter	connecting cable	optional module	frequency inverter
	 <p>(Mat. No.: 276970020)</p>	<p><b>Connecting cable 300E</b></p>  <p>(Mat. No.: 278910060)</p>		<p><b>trio SK 300E</b></p> 
	 <p><b>RS 232</b> 2 = RXD 3 = TXD 5 = GND</p> <p><b>RS 485</b> 1 = RS 485+ 4 = RS 485- 5 = GND 6 = + 5V</p>	<p><u>permanent connection:</u></p> <p><b>connecting cable vector</b></p>  <p>(Mat. No.: 278910020)</p>		<p><b>vector mc</b></p> 
<p><b>NORD CON Software</b></p> 		<p><b>Connecting cable RS232</b></p>  <p>(Mat. No.: 278910030)</p>	<p>optional module for frequency inverter:</p> <p><u>vector mc:</u> <b>RS232 mc</b></p>  <p><u>SK 700E:</u> <b>SK TU1-RS2</b></p> 	<p><b>SK 700E</b></p> 