

GETRIEBEBAU NORD

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SK TIE4-RS485-RS232

Part number: 275 274 603

Interface converter extension connection

Scope of delivery

1x	Interface converter	SK TIE4-RS485-RS232
1x	Connection cable	RJ12 ↔ RJ12 (plug)



Field of use

Interface converter for signals from RS485 to RS232. It is used to connect a device with an RS232 interface to a device with an RS485 interface.

Use

The signal converter is intended for the following device combinations. Depending on the combination, the DIP switch must be set (see "Configuration").

For all devices other than NORDAC *START* SK 1x5E, no signal converter is required for communication with a PC. In addition to the RS485 interface, all other device series with a diagnostic interface (RJ12 socket) also have an RS232 interface.

The signal converter only needs to be connected if one or more of these devices shall be connected to the PC via RS485.

Device RS232 interface connection	Interface converter DIP switch position for "master"			Device RS485 interface connection
	RS232	Communication direction	RS485	
SK 1x5E motor starter		↔	✓	SK PAR-3E / -3H
		↔	✓	SK CSX-3E / -3H
		↔	✓	SK PAR-5H
PC (NORDCON software) + Interface converter SK TIE4-RS232-USB TI 275274604	✓	⇒		SK 1x0E
	✓	⇒		SK 2xxE
	✓	⇒		SK 1x5E-FDS
	✓	⇒		SK 2xxE-FDS
	✓	⇒		SK 3xxP
	✓	⇒		SK 5xxE
	✓	⇒		SK 5xxP

Technical Information / Datasheet	SK TIE4-RS485-RS232			
Connection extension	TI 275274603	1.1	0724	en

Technical data

Temperature range	0 ... 40 °C
Protection class	IP20
Weight	25 g
RS485 termination	120 Ω, fixed

Interfaces	RS232 / RS485
Converter connections	2 x RJ12 socket
Dimensions	LxWxH = 56x31x24 [mm]
Connection cable length	~ 0.1 m

LED indicators

The operating statuses of the signal converter are indicated via LED indicators.




No.	Name	Colour	Meaning
1	PWR	Green	Ready for operation
2 1)	RS485	2x Yellow	Communication active

1) Each LED indicates an intact direction of communication. If an LED does not light up, this indicates a failure/interruption of the respective direction of communication.



Connections

The interface converter is looped in between the motor starter and a ParameterBox, for example (see below).

NORDAC START SK 1x5E	SK TIE4-RS485-RS232 interface converter	ParameterBox / SimpleControlBox SK PAR-3x / SK CSX-3x
		
Motor starter (RS232 interface)	Connection cable RJ12 – RJ12 (enclosed) Signal converter	Connection cable RJ12 – RJ12 (enclosed) ParameterBox (RS485 interface)

Information

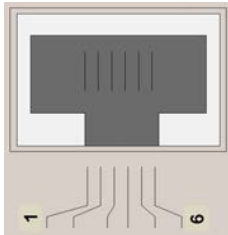
SK PAR-5H ParameterBox

When using an SK PAR-5H, the connection to the interface converter is made directly via the permanently-mounted connection cable of the ParameterBox.



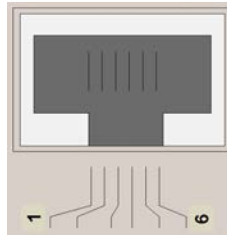
(1) RJ12 – RS232 details

Pin	Signal	Description
1	n.c.	
2	n.c.	
3	GND	Ground
4	TXD	Transmission data
5	RXD	Receive data
6	+24V-	24 V ± 20%



(2) RJ12 – RS485 details

Pin	Signal	Description
1	A (+)	RS485_A
2	B (-)	RS485_B
3	GND	Ground
4	n.c.	
5	n.c.	
6	+24V-	24 V ± 20%



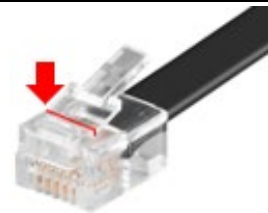
The contacts 3 and 6 are looped through!
The load must not exceed 500 mA!

Information

Use RJ12 plugs without latching tab

Only use RJ12 plugs without latching tab for connection to the diagnostic interface (RJ12 socket). Otherwise, the plug may get jammed in the RJ12 socket.

If necessary, remove the latching tab according to the figure and make sure that no burr remains.



Configuration

The configuration of the interface converter is limited to one DIP switch on the front side of the signal converter. It is used to determine the interface side on which the master is located.



Information

DIP switch position

If the DIP switch is not set correctly, communication is not possible!

NOTICE

Possible damage to devices

Ensure that only one of the participants in the line of communication performs the master function. Failure to observe this may result in damage to the connected devices.

- Check the master function.