GETRIEBEBAU NORD
Member of the NORD DRIVESYSTEMS Group

Getriebebau NORD GmbH & Co. KG
Getriebebau-Nord-Straße 1 • 22941 Bargteheide, Germany • www.nord.com

SK CU4-SSR-400

Part number: 275 271 128

Solid state relay

NOTICE

Validity of this document

This document is only valid in combination with the operating instructions for the relevant electronic drive technology and under strict compliance with the safety and warning instructions which they contain. Safe commissioning of this module and the electronic drive technology depends on the availability of this information.

Scope of supply

1 x	Module	**SK-CU4-SSR-400**
1 x	Cable set for digital signals	black / white / blue
1 x	Connection cable (Jumper) for simultaneous switching	red
2 x	Connecting screws	M4 x 20, cross-head

Field of use

The Solid-State-Relay unit is foreseen for use in decentralized electronic drive technology. This module enables the switching of DC voltage and AC voltage. The unit is equipped with two Solid-State-Relays.

The Solid-State-Relays are galvanically separated from the control. The switching is possible via digital signals for each relay individual or simultaneously (trough using of a jumper).

Function description

Two Solid-State relays are integrated on the module which can be controlled via the digital outputs of the frequency inverter and used as normally open (NO) contacts according to their connection.

Each relay can be controlled individually or simultaneously through a jumper. The relay base and the associated normally open contact are capacitively coupled.

Application examples

Thus, it is possible to supply voltage to an external devices or component. You can switch the voltage supply for a mechanical brake or a stand still heater unit with the device SK CU4-SSR.

Technical data

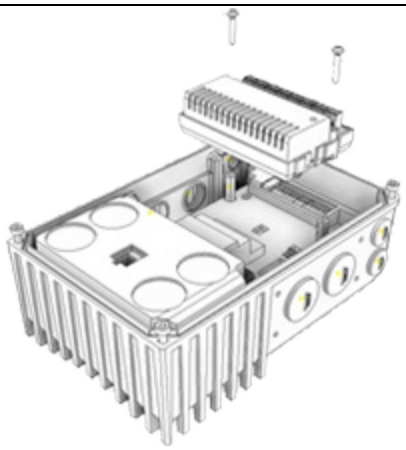
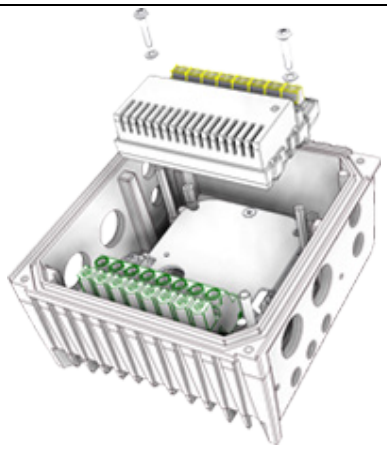
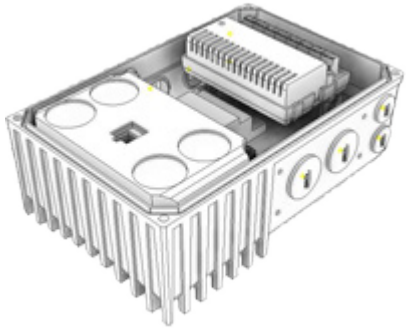
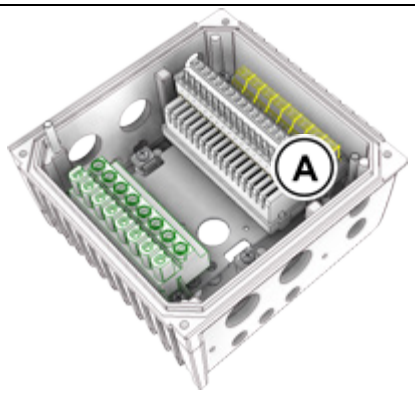
Temperature range	-25°C … 50 °C
Temperature class	Class 3K3

Vibration resistance	3M7
Protection class	IP20

Installation

Installation location	In defined option slot inside the frequency inverter (SK 1xxE, 2xxE).
Fastening	with screw fastenings

Installation steps

	SK 1xxE	SK 2xxE *)
1.		
2.		

*) Before carrying out installation step 1 it may be necessary to remove the control terminal bar (A),
The control terminal bar (A) must be fitted after installation step 2.

Connections

Terminals	Screw terminals	1 terminal bar with 16 connections, (5 mm spacing)
Cable cross section	0.14…2.5 mm	AWG 14-26
PE connection	Via device	Via screws for installation in the device

Control terminal details

Labelling, function

DIN: Digital input
R: Relay
GND: Reference potential for digital signals

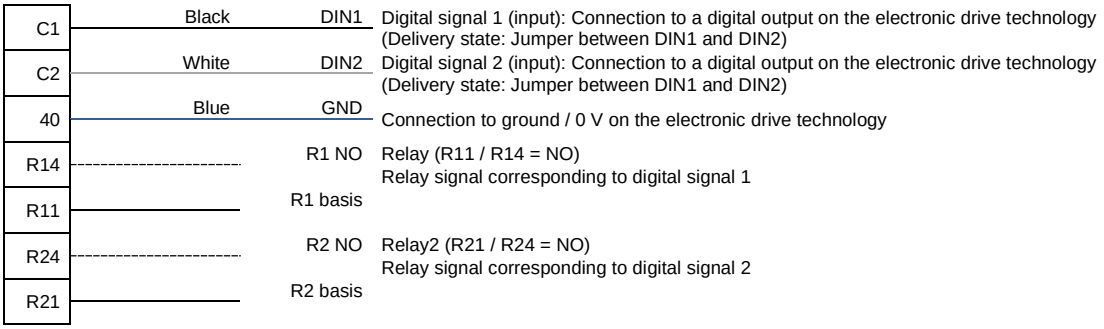
Connections, Functions

Labelling	Function
R21	Relay 2 basis
R24	Relay 2, NO
R11	Relay 1 basis
R14	Relay 1, NO
40	GND/0V
C2	DIN2
C1	DIN1

Digital/relay potential level

Meaning, Functions		Description / Technical data		
Terminal			Parameter	
No.	Designation	Meaning	No.	Function of factory setting
Digital inputs		Relay input for connection of a digital output signal from the electronic drive technology.		
		Low: 0 - 5 V (2.8 kΩ) High: 18 - 30 V (1.6 kΩ)	24 V DC ± 25 % Maximal 15 mA Response time max 7 ms	
C1	DIN1	Digital input 1	Assignment of the functions of the digital output signals is made via parameter P434[...] of the frequency inverter.	
C2	DIN2	Digital input 2		
40	GND/0V	Reference potential GND		
Relay outputs		Relay output executed as normally open, control via the signals applied to the digital input.		
		Load: max. 300 mA (no fuse), Voltage: 480 V AC (+ 10%) Response time: max. 7 ms		
R14	R1 NO	Relay 1.4 – normally open	Signal source: **DIN1** Connecting relay as *Normally open: R11 / R14*	
R11	R1 basis	Relay 1.1 – basis		
R24	R2 NO	Relay 2.4 – normally open	Signal source: **DIN2** Connecting relay as *Normally open: R21 / R24*	
R21	R2 basis	Relay 2.1 – basis		

Connection example



Further documentation (www.nord.com)

Document	Name
BU 0135	Motor starter manual SK 135E, SK 175E
BU 0180	Frequency inverter manual SK 180E, SK 190E

Document	Name
BU 0200	Frequency inverter manual SK 2xxE