

SK TIE5-CIO

Part number: 278 910 150

Manual control box NORDAC CONTROL I/O

Scope of delivery

1x	Manual control box	SK TIE5-CIO
1x	Adapter connection cable	M17 (socket)



Field of use

The manual control box NORDAC CONTROL I/O allows you to test all control signals of a frequency inverter or motor starter. Use the supplied adapter connection cable with open cable ends for connection.

Use

During commissioning or servicing, all of the device's digital and analogue inputs are able to simulate and to check or monitor the digital and analogue output signals.

The manual control box must be connected to the control connections of the device to be tested.

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.

WARNING

Electric shock

Contact with electrically live components may result in electric shock, possibly with serious or fatal injuries.

- Disconnect the device electrically before starting installation work.
- Only work on devices with switched-off power.

Technical Information / Datasheet	SK TIE5-CIO			
NORDAC CONTROL I/O	TI_278910150	V 1.1	1524	en

Name plate

All information which is relevant for the device, including information for the identification of the device can be obtained from the name plate.











Type:	SK TIE5-CIO
Part No.:	278910150
ID:	24X308586637

Version:	1.0R0 AAA
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Type:	Type / designation
Part No.:	Material number
ID:	Identification number

Version:	Software / hardware version
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Assignment and device connection

Device type and device designation		Series	Connection (see manual)
Motor starter	NORDAC START	SK 1x5E	Terminal block X5  BU 0135
	NORDAC LINK	SK 1xxE-FDS	 BU 0155
Frequency inverter	NORDAC LINK	SK 2xxE-FDS	 BU 0250
	NORDAC BASE	SK 1x0E	Terminal block X4  BU 0180
	NORDAC FLEX	SK 2xxE	 BU 0200
	NORDAC ON	SK 3xxP	 BU 0800
	NORDAC PRO	SK 5xxE	Terminal block X4, X5, X7  BU 0500 / BU 0540
SK 5xxP		Terminal block X10, X11, X12  BU 0600	

Information

Control connections

Information and respective specifications on the connections to the device can be found in the manuals. They are available at www.nord.com under the heading *Documentation* → *Manuals* → *Electronic drive technology*. The manual lists the device-specific and available control signals (digital and analogue inputs/outputs). Information on the electrical connection can be found in the section “Electrical connection of the control unit”.

Technical data

Temperature range	0 ... 40 °C
Protection class	IP20
Weight	~ 450 g
Software version	1.0 R0

Tightening torque	0.4 Nm
Nominal voltage	24 V DC ±20 %
Nominal current	Max. 100 mA

Type	Manual control box
Dimensions L x W x H [mm]	165 x 85 x 35
Cable length	~ 100 mm + M12 plug
Connection Design Number of poles Coding	M12 Straight plug 17-pole A
Material	PUR, black
AWG	26






Type	Adapter connection cable
Cable length	~ 1500 mm + M12 socket
Wire length	~ 150 mm
Electric wire ferrule	0.8 mm with collar
Connection Design Number of poles Coding	M12 Straight socket 17-pole A
Material	PUR, black
AWG	26

Operating state signalling

Signal type	Control element	Function	Functionality
Digital input DI	Switch DI 1 ... DI 8	Momentary	• Push switch downwards + hold
		Latching	• Push switch upwards
Digital output DO	LED DO 1 and DO 2	Display	• Digital output is set [DO 1 or DO 2 lights up]
Analogue input AI	Rotary potentiometer AI 1 and AI 2	Value setting	• Setpoint specification [0 to 10 V]
Analogue output AO	Graphic display and rotary selection knob AO 1 and AO 2	(Graphic) display of the value	• The value of the selected analogue output is displayed on the graphic display. • The form of display and the analogue output are selected via the rotary selection knob.

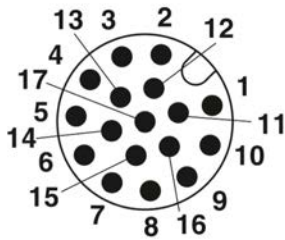


Screen selection and display

Menu	Function	Display	Functionality
Analogue output selection	Rotary knob / push button Display control 	AO 1 and AO 2	<ul style="list-style-type: none"> Value to be displayed AO1 (analogue output 1) AO2 (analogue output 2) <p>Note: The selected AO is changed by pressing the control element during the graphic display.</p>
Display selection	Rotary knob / push button Display control 		<ul style="list-style-type: none"> Options for selected analogue output
Numeric	Numerical representation		<ul style="list-style-type: none"> Numerical value for selected analogue output
Scope	Graphic display		<ul style="list-style-type: none"> Graphic for selected analogue output

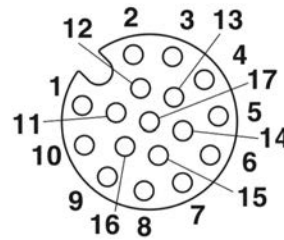
Connections

Manual control box



M17 plug

Adapter connection cable



M17 socket



PIN	Function	Wire colour	
1	24 V DC supply	Brown	
2	GND	Blue	
3	DI 1 ⇒ Digital input 1	White	
4	DI 6 ⇒ Digital input 6	Green	
5	DI 4 ⇒ Digital input 4	Pink	
6	DI 3 ⇒ Digital input 3	Yellow	
7	DI 7 ⇒ Digital input 7	Black	
8	DI 2 ⇒ Digital input 2	Grey	
9	10 V reference voltage	Red	
10	DI 5 ⇒ Digital input 5	Purple	
11	AI 1 ⇒ Analogue input 1	Grey	Pink
12	DO 1 ⇒ Digital output 1	Red	Blue
13	AO 1 ⇒ Analogue output 1	Green	White
14	AO 2 ⇒ Analogue output 2	Brown	Green
15	DO 2 ⇒ Digital output 2	Yellow	White
16	DI 8 ⇒ Digital input 8	Brown	Yellow
17	AI 2 ⇒ Analogue input 2	Grey	White