

## Technical Information / Datasheet

### Adapter 300E 24V DC M8 plug connector / M12 socket

Part number: 278 910 061

Connection cable for external 24V supply  
M8 to M12 round plug connector



#### Scope of delivery

1 x	Adapter 300E 24V DC Connection cable	M8 straight plug connector, M12 straight socket
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#### Field of use

The adapter is used to connect the 24 V DC power supply for migration from SK 300E to SK 180E ... SK 2xxE frequency inverter field bus applications. Via an adapter cable it is possible to connect the M8 round plug connector for the external 24 V power supply of the SK TU2-xxx bus options to an M12 round plug connector for the SK xU4-xxx field bus options.

#### Use

The connection cable is intended for the following field bus technology units / applications.

<b>SK 300E</b>	<b>M8</b>		<b>M12</b>	<b>SK 180E ... SK 2xxE</b>
SK TU2-PBR-24V (-C)	Plug connector 3 pin		Socket 3 pin	SK CU4-PBR SK TU4-PBR (-C) SK TU4-PBR-M12 (-C)

Adapter				SK 300E 24 V DC	
1.0	Erstausgabe / first issue	0814	Bch	TI 278910061	GB
version	reason for change(s)	issue	name	document	speech

**Technical data**

Version	
Temperature range	- 25 ... + 80 °C
Housing M8 / M12 Colour / Material	Black / RAL 9005 PUR - OB
Contact insert Colour / Material	Green / RAL 6018 Plastic
Screw M8x1 / M12x1 Material	Injection moulded zinc nickel plated
Connection / Type Round plug connector	M8x1, straight plug connector M12x1, straight socket
Protection class (screwed)	IP67

Weight	24 g
Contact sets Contacts / Coding	3 pin A – coded (M12 only)
Fastening	Hexagonal nut M8x1 * SW 9 M16x1 * SW 13
Tightening torques * M8x1 plug connector M12x1 socket	0.4 Nm 0.6 Nm

\* Suitable assembly spanners (SW = Width across flats) are commercially available (see Assembly)

Cable	
Cable / Sheath material Colour / Material	Black / RAL 9005 PUR-OB
Conductor insulation material	PP
Dimensions Cable length L Total length of adapter	150 mm 227 mm
Conductor insulation / Strands Colours / Material	UL, CSA / (brown, black, blue) PP

Mech. service life Plugging cycles / Torsion	2 million for 35 plugging cycles / minute +/- 180° / m
Number of conductors / Cross section	3 x 0.25 mm <sup>2</sup>
Degree of fouling	3
Operating voltage	max. 60 V
Current capacity	4 A per contact
Insulation resistance	≥ 10 <sup>8</sup> Ω
Rated surge voltage	1,5 kV
Insulating material group	Category I IEC 60664-1

**Circuit diagram**

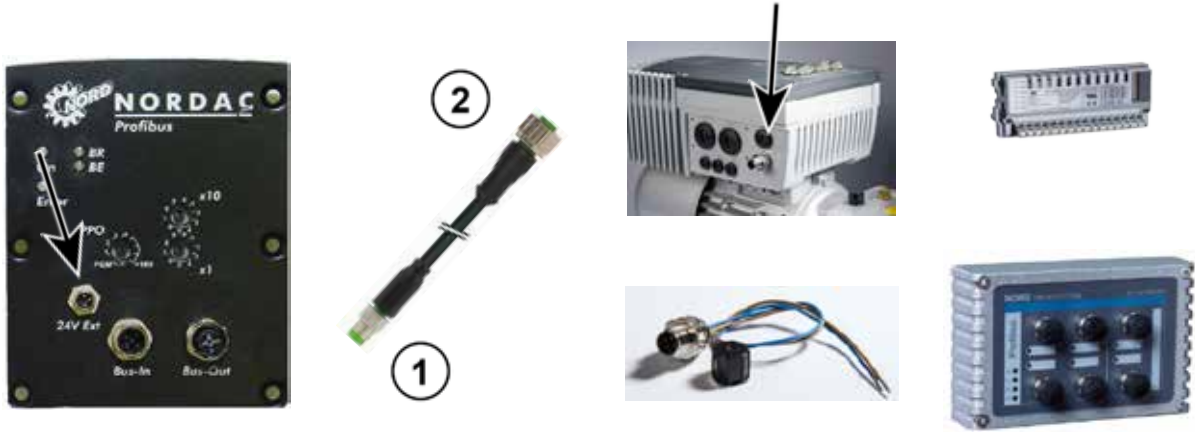

(1) Cable sleeve

(2) Cable printing

L = 150 mm

### Connections

For the 24V DC power supply, the adapter is connected to the M8 socket of the supply cable and to the flanged plug connector of the M12 connection extension SK TIE4-M12-POW on the frequency inverter (see below)



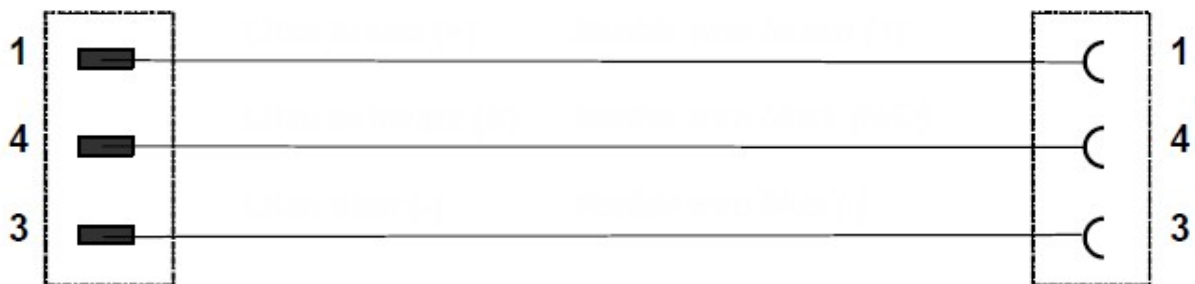
<b>Technology unit</b> SK TU2-PBR-24V (M8 socket for ext. 24 V)	<b>Adapter cable</b> SK 300E 24 V DC M8 plug connector - M12 socket	<b>Connection extension</b> SK TIE4-M12-POW M12 flanged plug connector	<b>Technology option</b> SK CU4-PBR SK TU4-PBR-(M12) (-C)
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- (1) M8 straight plug connector      (2) M12 straight socket

### Electrical connections

	<b>M8 connector</b>	<b>M12 socket</b>																
Contact assignment 3 pin <b>plug connector,</b> straight	<table border="1" style="margin: auto;"> <thead> <tr> <th>Pin</th> <th>Colour</th> <th>Signal</th> <th>Pin</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Brown</td> <td>+24 V DC</td> <td>1</td> </tr> <tr> <td>4</td> <td>Black</td> <td>Shield</td> <td>4</td> </tr> <tr> <td>3</td> <td>Blue</td> <td>GND</td> <td>3</td> </tr> </tbody> </table>	Pin	Colour	Signal	Pin	1	Brown	+24 V DC	1	4	Black	Shield	4	3	Blue	GND	3	Contact assignment 3 pin <b>socket,</b> straight A – coded
Pin	Colour	Signal	Pin															
1	Brown	+24 V DC	1															
4	Black	Shield	4															
3	Blue	GND	3															

### Circuit diagram



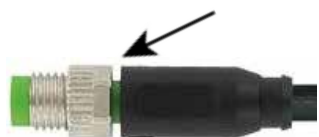
## Assembly

Assembly of the adapter which is used for the migration of the round plug connectors from M8 to M12 should preferably be carried out with commercially available tools.

### Information

### Tightening torque

The stated tightening torques must be used for tightening the hexagonal nut on the M8 plug connector or on the M12 socket. Please refer to the technical data for the tightening torques.



M8 plug connector SW 9

#### Spanner sizes

M12 socket SW 13



### Information

### Torque Wrench for Assembly



In order to ensure a secure, sealed and vibration-proof connection, the round plug connectors, which are equipped with a hexagonal threaded ring (M8 ↔ SW 9, M12 ↔ SW13), should be tightened with a special torque wrench.

NORD recommends the use of a commercially available assembly tool with an adjustable, defined tightening torque (e.g. Murrelektronik). Please refer to the technical data for the tightening torques.

### Further documentation ([www.nord.com](http://www.nord.com))

Document	Name
BU 0020	PROFIBUS DP Manual
BU 0180	SK 180E...SK 190E frequency inverter manual
BU 0200	SK 2xxE frequency inverter manual

Document	Name
BU 0220	PROFIBUS DP for SK 0200E
BU 0300	SK 300E frequency inverter manual
TI 275274507	Connection extension SK TIE4-M12-POW