

2902731

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D-SUB connector, 9-pos., socket, assignment: 2, 3, 5, 7, 9; two M12 cable entries (A-coded) under 90°. Bus system: CAN, CANopen®. Termination resistor via separate M12 terminator.



## Product description

The SUBCON-PLUS fast connectors with M12 connection ensure error-free installation of bus systems, thanks to the use of fully-tested components such as cables and connectors. The innovative housing concept is lightweight yet offers optimum mechanical protection against environmental influences. This means that the fast connection plugs are ideal, even in applications subject to vibration. The unique SPEEDCON fast locking system on the M12 connections offers reliable connection with just half a turn.

## Your advantages

- Easy startup, plug and play
- Error-free installation, particularly in standard machine production
- Quick connection thanks to M12-SPEEDCON fast locking system
- Low weight
- CANopen®
- Termination using M12 termination resistor
- Adapter between IP20 and IP67 environments
- Through-contacted shielding from M12 to D-SUB



## Commercial data

Item number	2902731
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN10

# SUBCON-PLUS-CAN/90X/M12 - D-SUB bus connector



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Product key	DNC541
GTIN	4046356672559
Weight per piece (including packing)	72.4 g
Weight per piece (excluding packing)	72.4 g
Customs tariff number	85366990
Country of origin	CN

# SUBCON-PLUS-CAN/90X/M12 - D-SUB bus connector



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## Technical data

### Notes

#### Note on application

Note on application	Only for industrial use
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### Product properties

Product type	Data plug
MTTF	6706 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	1817 Years (SN 29500 standard, temperature 40°C, operating cycle 34.25%)
	155 Years (SN 29500 standard, temperature 40°C, operating cycle 100%)
Pin assignment	2, 3, 5, 7, 9

### Electrical properties

Nominal voltage $U_N$	5 V
Nominal current $I_N$	100 mA

### Connection data

Tightening torque	... 0.4 Nm
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#### D-SUB connection

Connection method	D-SUB socket
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#### M12 connector

Connection method	M12 male, A-coded
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#### M12 connector

Connection method	M12 female, A-coded
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### Interfaces

Bus system	CAN, CANopen, SafetyBus-P
Signal	CAN
	CANopen®

### Dimensions

Dimensional drawing	
Width	16 mm
Height	41 mm

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Length	93 mm
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## Material specifications

Color (Housing)	black (RAL 9005)
Material (Housing)	Polyamide

## Mechanical properties

### Mechanical data

Fixing screws	4-40 UNC
Tightening torque	0.4 Nm

## Mechanical tests

Vibration resistance in accordance with EN 60068-2-6/IEC 60068-2-6	Operation: 5g, 10...150 Hz, 2.5 h, in XYZ direction
Shock in accordance with EN 60068-2-27/IEC 60068-2-27	Operation: 15g, 11 ms period, half-sine shock pulse

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP40
Ambient temperature (operation)	-30 °C ... 80 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Ambient temperature (assembly)	-20 °C ... 80 °C
Altitude	≤ 5000 m (For restrictions, see the manufacturer's declaration for altitude operation)
Permissible humidity (operation)	10 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	5 % ... 95 % (non-condensing)

## Standards and regulations

Free from substances that could impair the application of coating	VDMA 24364:2018-05
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# SUBCON-PLUS-CAN/90X/M12 - D-SUB bus connector

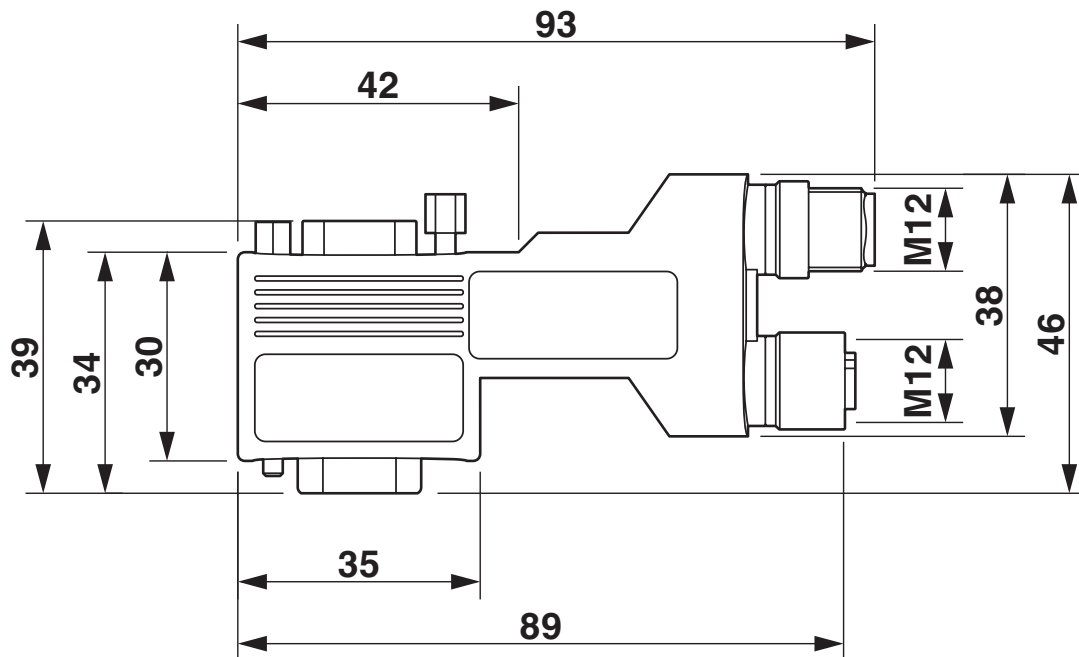


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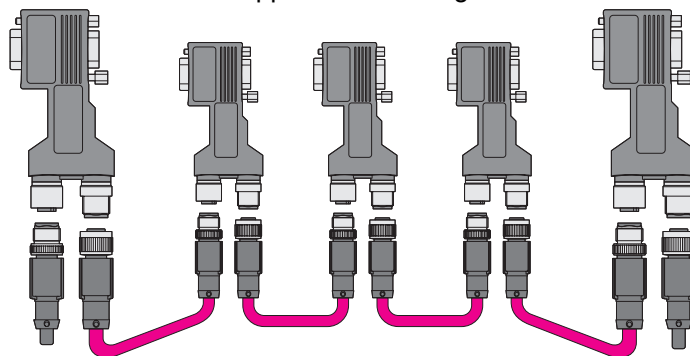
## Drawings

Dimensional drawing



SUBCON-PLUS...90X...M12 dimensional drawing, long 90° version

Application drawing



Bus/Line structure

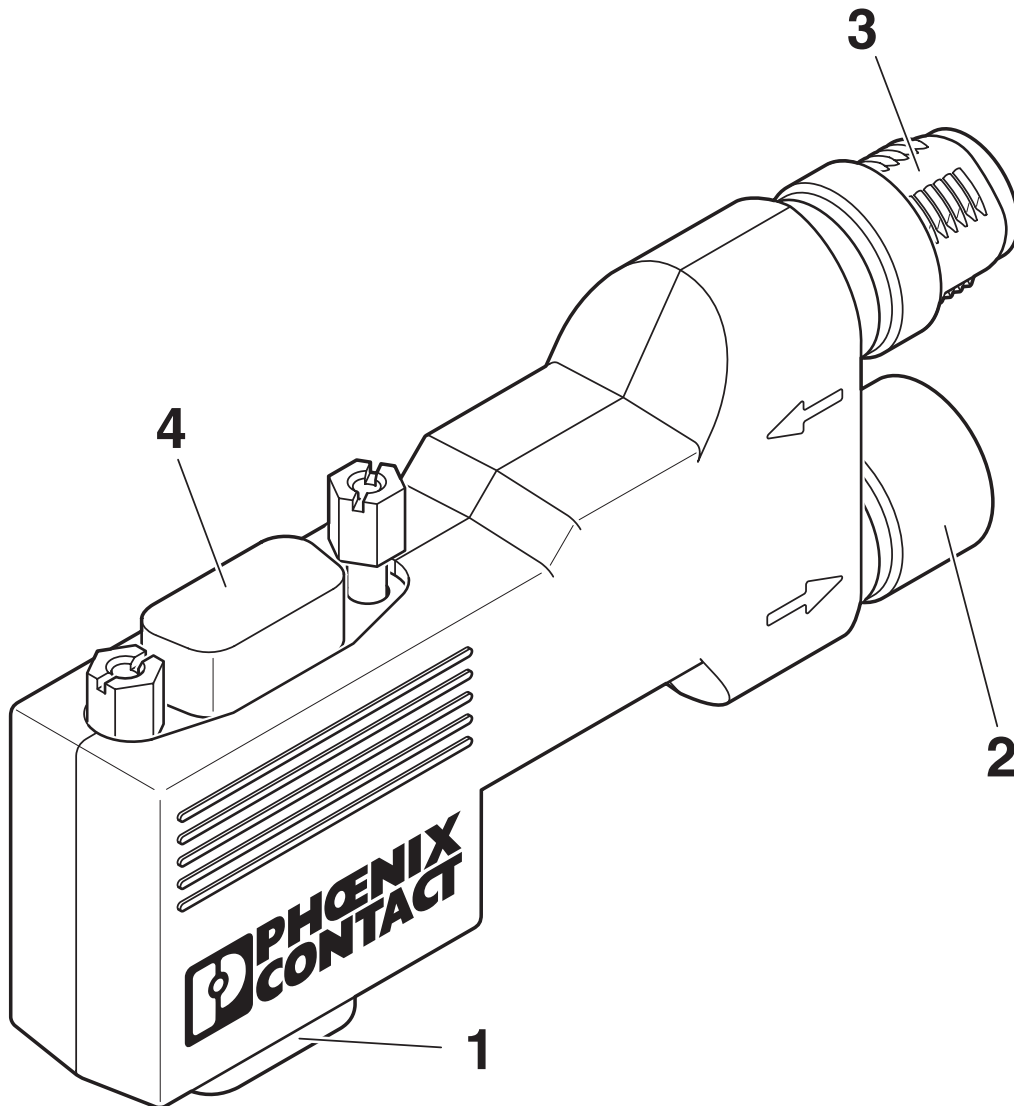
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Schematic diagram



## Function elements

1 = D-SUB 9

2 = Outgoing M12 connection

3 = Incoming M12 connection

4 = D-SUB PG connection (depending on the version)

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Block diagram



SUBCON-PLUS-CAN/...M12 function block diagram

# SUBCON-PLUS-CAN/90X/M12 - D-SUB bus connector



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## Approvals

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**cULus Recognized**  
Approval ID: E238705

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## Classifications

### ECLASS

ECLASS-13.0	27440302
ECLASS-15.0	27440322

### ETIM

ETIM 10.0	EC001132
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### UNSPSC

UNSPSC 21.0	39121400
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c)

### China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

### EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	b3a02f99-57ab-479d-950f-5c3de0ec10ce

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