

# CA-07S1N8A90DN - Coupler connector



1620166

<https://www.phoenixcontact.com/us/products/1620166>

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M23, Coupler connector, series: CA, straight, shielded: yes, for standard and SPEEDCON interlock, No. of pos.: 7, Direction of rotation: Standard, contact connection type: Socket, Crimp connection, cable diameter range: 3 mm ... 14.5 mm, coding: N, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244055

## Your advantages

- Safe use in the field, thanks to high degree of protection
- Connector for flexible on-site assembly
- Consistent EMC protection for reliable transmission of signals
- Crimping connection: vibration- and temperature-resistant assembly

## Commercial data

|                                      |                    |
|--------------------------------------|--------------------|
| Item number                          | 1620166            |
| Packing unit                         | 1 pc               |
| Minimum order quantity               | 1 pc               |
| Sales key                            | AB31               |
| Product key                          | ABRAEG             |
| Catalog page                         | Page 88 (C-2-2019) |
| GTIN                                 | 4046356818797      |
| Weight per piece (including packing) | 95.27 g            |
| Weight per piece (excluding packing) | 92 g               |
| Customs tariff number                | 85366990           |
| Country of origin                    | DE                 |

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## Technical data

### Product properties

|              |                                 |
|--------------|---------------------------------|
| Product type | Circular connector (cable-side) |
|--------------|---------------------------------|

### Connector

#### Connection 1

|             |        |
|-------------|--------|
| Head design | Socket |
|-------------|--------|

#### Insulating body

|                                    |                                                           |
|------------------------------------|-----------------------------------------------------------|
| Note                               | Order information: Order crimp contacts Ø 2 mm separately |
| Coding                             | N                                                         |
| Insulation body material           | PA 6.6                                                    |
| Connection method                  | Crimp connection                                          |
| Contact switching type             | Socket                                                    |
| Application                        | Signal                                                    |
| Number of positions                | 7                                                         |
| Direction of rotation              | Standard                                                  |
| Connection profile                 | 7                                                         |
| Contact diameter                   | 2 mm                                                      |
| Litz wire cross-section            | Signal contacts min. 1 mm <sup>2</sup>                    |
| Litz wire cross-section            | Signal contacts max. 2.5 mm <sup>2</sup>                  |
| Nominal current per signal contact | 20 A                                                      |
| Rated voltage Signal contact       | 48 V AC                                                   |
| Rated surge voltage                | 1.5 kV                                                    |
| Overvoltage category               | III                                                       |
| Degree of pollution                | 3                                                         |

#### Housing

|                                   |                                                                      |
|-----------------------------------|----------------------------------------------------------------------|
| Housing material                  | Turned parts: copper zinc alloy (CuZn), die-cast parts: zinc (GD-Zn) |
| Type of locking                   | for standard and SPEEDCON interlock                                  |
| Pg screw connection               | none                                                                 |
| Degree of protection (plugged in) | IP67                                                                 |
| Thread type                       | M23                                                                  |

#### Seal

|                         |                  |
|-------------------------|------------------|
| External cable diameter | 3 mm ... 14.5 mm |
| Seal material           | NBR              |

### Environmental and real-life conditions

#### Ambient conditions

|                                 |                   |
|---------------------------------|-------------------|
| Ambient temperature (operation) | -40 °C ... 125 °C |
|---------------------------------|-------------------|

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|                                          |                 |
|------------------------------------------|-----------------|
| Ambient temperature (storage/transport)  | 15 °C ... 25 °C |
| Permissible humidity (storage/transport) | 50 % ... 65 %   |

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## Drawings

Schematic diagram



Connector pin assignment

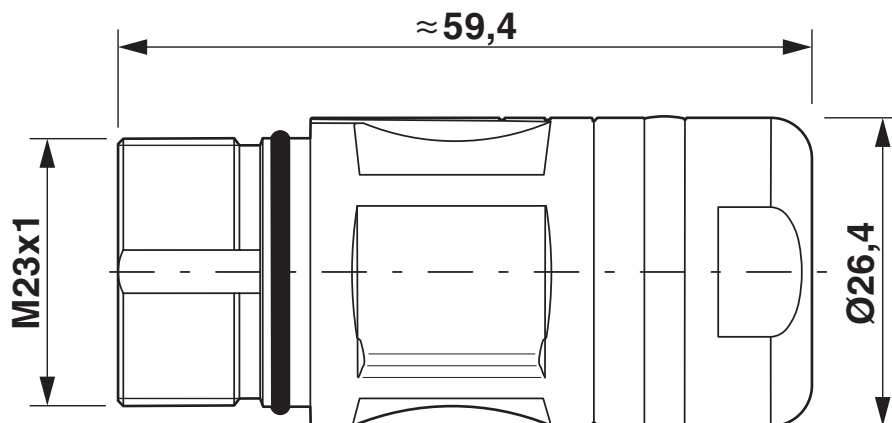
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Dimensional drawing



Technical drawings can be found under Downloads

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1620166>

|                                                                                                                                          |                       |                       |                   |                             |
|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|  <b>cUL Recognized</b><br>Approval ID: E335019-20141210 |                       |                       |                   |                             |
|                                                                                                                                          | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|                                                                                                                                          | 48 V                  | 10 A                  | - 14              | -                           |

|                                                                                                                                         |                       |                       |                   |                             |
|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|  <b>UL Recognized</b><br>Approval ID: E335019-20141210 |                       |                       |                   |                             |
|                                                                                                                                         | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|                                                                                                                                         | 48 V                  | 17 A                  | - 14              | -                           |

|                         |  |  |  |  |
|-------------------------|--|--|--|--|
| <b>cULus Recognized</b> |  |  |  |  |
|-------------------------|--|--|--|--|

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27440102 |
| ECLASS-12.0 | 27440116 |
| ECLASS-13.0 | 27440116 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC002635 |
|----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 39121400 |
|-------------|----------|

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## Environmental product compliance

|            |                                                                                                              |
|------------|--------------------------------------------------------------------------------------------------------------|
| REACH SVHC | Lead 7439-92-1                                                                                               |
| China RoHS | Environmentally Friendly Use Period = 50 years                                                               |
|            | For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads" |

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