

## Device connector, front mounting - ST-8ES1N8AW500S - 1620461

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The figure shows the 8-position version

Device connector, front mounting, straight, for standard and SPEEDCON interlock, M17, number of positions: 5+3+PE, type of contact: Socket, Axial O-ring, 4x Ø 3.2, shielded: yes, flange dimensions: 25.75 mm x 25.75 mm, degree of protection: IP67, number of positions: 9, connection method: Crimp connection

### Your advantages

- ✓ Consistent EMC protection for reliable connection solutions in the industrial environment
- ✓ Crimping connection: vibration- and temperature-resistant assembly
- ✓ Flexible mounting, thanks to snap-in contact inserts



### Key Commercial Data

|                      |                                                                                                         |
|----------------------|---------------------------------------------------------------------------------------------------------|
| Packing unit         | 1 pc                                                                                                    |
| GTIN                 | <br>4 046356 828123 |
| GTIN                 | 4046356828123                                                                                           |
| Custom tariff number | 85366990                                                                                                |
| Country of origin    | Germany                                                                                                 |

### Technical data

#### General

|                                                    |                                                                           |
|----------------------------------------------------|---------------------------------------------------------------------------|
| Note                                               | Order information: Order crimp contacts 5 x 0.6 mm, 4 x Ø 1 mm separately |
| Type of locking                                    | for standard and SPEEDCON interlock                                       |
| Direction of rotation of contact chamber numbering | Standard                                                                  |
| Coding                                             | N                                                                         |
| Contact connection method                          | Crimp connection                                                          |

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## Technical data

### General

|                                     |          |
|-------------------------------------|----------|
| Type of contacts                    | Socket   |
| Number of positions                 | 9        |
| Contact diameter of power contacts  | 1 mm     |
| Rated current for power contacts    | 14 A     |
| Contact diameter of signal contacts | 0.6 mm   |
| Nominal current per signal contact  | 3.6 A    |
| Pg housing screw connection         | none     |
| Mounting type                       | 4x Ø 3.2 |

### Ambient conditions

|                      |                   |
|----------------------|-------------------|
| Ambient temperature  | -40 °C ... 125 °C |
| Degree of protection | IP67              |

### Specifications according to DIN EN 61984:2001

|                                                |        |
|------------------------------------------------|--------|
| Installation height max.                       | 2000 m |
| Nominal / operating voltage of power contacts  | 630 V  |
| Rated surge voltage of power contacts          | 6 kV   |
| Overvoltage category of power contacts         | III    |
| Degree of pollution of power contacts          | 3      |
| Nominal / operating voltage of signal contacts | 60 V   |
| Rated surge voltage of signal contacts         | 1.5 kV |
| Overvoltage category of signal contacts        | III    |
| Degree of pollution of signal contacts         | 3      |

### Standards and Regulations

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Safety note | WARNING: The connectors may not be plugged in or disconnected under load. Ignoring the warning or improper use may damage persons and/or property.                                                                                                                                                                                                                                                                                 |
|             | • WARNING: Commission properly functioning products only. The products must be regularly inspected for damage. Decommission defective products immediately. Replace damaged products. Repairs are not possible.                                                                                                                                                                                                                    |
|             | • WARNING: Only electrically qualified personnel may install and operate the product. They must observe the following safety notes. The qualified personnel must be familiar with the basics of electrical engineering. They must be able to recognize and prevent danger. The relevant symbol on the packaging indicates that only personnel familiar with electrical engineering are allowed to install and operate the product. |
|             | • The products are suitable for applications in plant, controller, and electrical device engineering.                                                                                                                                                                                                                                                                                                                              |
|             | • When operating the connectors in outdoor applications, they must be separately protected against environmental influences.                                                                                                                                                                                                                                                                                                       |
|             | • Assembled products may not be manipulated or improperly opened.                                                                                                                                                                                                                                                                                                                                                                  |

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## Technical data

### Standards and Regulations

|  |                                                                                                                                                                                                                                                                                              |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <ul style="list-style-type: none"> <li>Only use mating connectors that are specified in the technical data of the standards listed (e.g. the ones listed in the product accessories online at <a href="https://www.phoenixcontact.com/products">phoenixcontact.com/products</a>).</li> </ul> |
|  | <ul style="list-style-type: none"> <li>When using the product in direct connection with third-party manufacturers, the user is responsible.</li> </ul>                                                                                                                                       |
|  | <ul style="list-style-type: none"> <li>For operating voltages &gt; 50 V AC, conductive connector housings must be grounded</li> </ul>                                                                                                                                                        |
|  | <ul style="list-style-type: none"> <li>Ensure that the protective or functional ground has been properly connected.</li> </ul>                                                                                                                                                               |
|  | <ul style="list-style-type: none"> <li>VDE 0100/1.97 § 411.1.3.2 and DIN EN 60 204/11.98 § 14.1.3 are applicable when combining several circuits in a cable and/or connector</li> </ul>                                                                                                      |
|  | <ul style="list-style-type: none"> <li>Only use tools recommended by Phoenix Contact</li> </ul>                                                                                                                                                                                              |
|  | <ul style="list-style-type: none"> <li>The installation notes/Design In documents online on the download page at <a href="https://www.phoenixcontact.com/products">phoenixcontact.com/products</a> must be observed for this product.</li> </ul>                                             |
|  | <ul style="list-style-type: none"> <li>Operate the connector only when it is fully plugged in and interlocked.</li> </ul>                                                                                                                                                                    |
|  | <ul style="list-style-type: none"> <li>Ensure that when laying the cable, the tensile load on the connectors does not exceed the upper limit specified in the standards.</li> </ul>                                                                                                          |
|  | <ul style="list-style-type: none"> <li>Observe the minimum bending radius of the cable. Lay the cable without twisting it.</li> </ul>                                                                                                                                                        |
|  | <ul style="list-style-type: none"> <li>The connector warms up in normal operation. Depending on the ambient conditions, the surface of the connector can continue to warm up. In this case, the user is responsible for posting warnings (e.g. DIN EN ISO 13732-1:2008-12).</li> </ul>       |

### Environmental Product Compliance

|            |                                                         |
|------------|---------------------------------------------------------|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
|            | No hazardous substances above threshold values          |

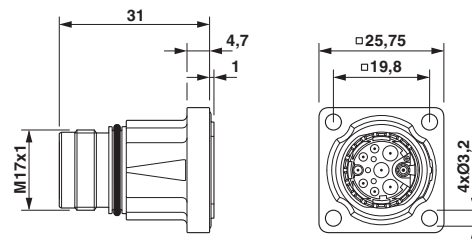
## Drawings

Schematic diagram



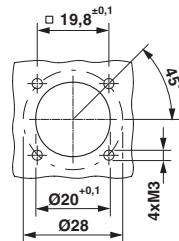
Connector pin assignment

Dimensional drawing

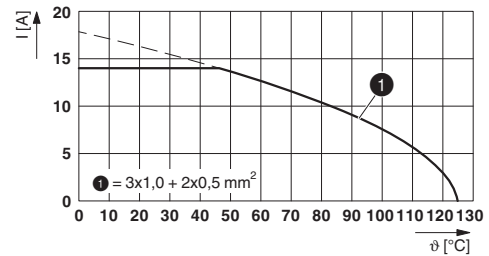


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Schematic diagram



Diagram



Installation dimensions

$I$  = current strength,  $\theta$  = ambient temperature, 3x 14 A + 2x 2 A constant

### Classifications

eCl@ss

|               |          |
|---------------|----------|
| eCl@ss 10.0.1 | 27440102 |
| eCl@ss 11.0   | 27440102 |
| eCl@ss 4.0    | 27140800 |
| eCl@ss 4.1    | 27140800 |
| eCl@ss 5.0    | 27143400 |
| eCl@ss 5.1    | 27143400 |
| eCl@ss 6.0    | 27279200 |
| eCl@ss 7.0    | 27440103 |
| eCl@ss 9.0    | 27440102 |

ETIM

|          |          |
|----------|----------|
| ETIM 3.0 | EC001121 |
| ETIM 4.0 | EC002635 |
| ETIM 6.0 | EC002061 |

UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 43172015 |
| UNSPSC 7.0901 | 43201404 |
| UNSPSC 11     | 43172015 |
| UNSPSC 12.01  | 43201404 |
| UNSPSC 13.2   | 39121413 |
| UNSPSC 18.0   | 39121413 |
| UNSPSC 19.0   | 39121413 |
| UNSPSC 20.0   | 39121413 |
| UNSPSC 21.0   | 39121413 |

## Device connector, front mounting - ST-8ES1N8AW500S - 1620461

### Approvals

#### Approvals

#### Approvals

UL Recognized / cUL Recognized / EAC / cULus Recognized

#### Ex Approvals

#### Approval details

|                    |       |                                                                                   |                                                                                                                                                       |               |  |
|--------------------|-------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--|
| UL Recognized      |       |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 335019 |  |
|                    |       |                                                                                   |                                                                                                                                                       |               |  |
| Nominal voltage UN | 600 V |                                                                                   |                                                                                                                                                       |               |  |
| Nominal current IN | 3.5 A |                                                                                   |                                                                                                                                                       |               |  |
| mm²/AWG/kcmil      | 20    |                                                                                   |                                                                                                                                                       |               |  |

|                    |       |                                                                                     |                                                                                                                                                       |               |
|--------------------|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| cUL Recognized     |       |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 335019 |
|                    |       |                                                                                     |                                                                                                                                                       |               |
| Nominal voltage UN | 600 V |                                                                                     |                                                                                                                                                       |               |
| Nominal current IN | 3.5 A |                                                                                     |                                                                                                                                                       |               |
| mm²/AWG/kcmil      | 20    |                                                                                     |                                                                                                                                                       |               |

|     |                                                                                     |         |
|-----|-------------------------------------------------------------------------------------|---------|
| EAC |  | B.01687 |
|-----|-------------------------------------------------------------------------------------|---------|

|                  |                                                                                     |
|------------------|-------------------------------------------------------------------------------------|
| cULus Recognized |  |
|------------------|-------------------------------------------------------------------------------------|

### Accessories

#### Accessories

#### Crimp contact

## Device connector, front mounting - ST-8ES1N8AW500S - 1620461

### Accessories

Crimp contact - ST-06KS010 - 1607580



Crimp contact, turned, contact diameter: 0.6 mm, crimp range: 0.06 mm<sup>2</sup> ... 0.25 mm<sup>2</sup>

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Crimp contact - ST-06KS020 - 1607581



Crimp contact, turned, contact diameter: 0.6 mm, crimp range: 0.14 mm<sup>2</sup> ... 0.34 mm<sup>2</sup>

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Crimp contact - ST-06KS030 - 1607582



Crimp contact, turned, contact diameter: 0.6 mm, crimp range: 0.34 mm<sup>2</sup> ... 0.5 mm<sup>2</sup>

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Crimp contact - ST-10KS010 - 1618239



Crimp contact, turned, Single contact, contact diameter: 1 mm, crimp range: 0.06 mm<sup>2</sup> ... 0.25 mm<sup>2</sup>

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Crimp contact - ST-10KS035 - 1618464



Crimp contact, turned, contact diameter: 1 mm, crimp range: 0.25 mm<sup>2</sup> ... 1 mm<sup>2</sup>

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### Mounting material

## Device connector, front mounting - ST-8ES1N8AW500S - 1620461

### Accessories

Color-coding - ST-Z0019 - 1620621



Color-coding, color: green

Color-coding - ST-Z0020 - 1620622



Color-coding, color: orange

Color-coding - ST-Z0021 - 1620623



Color-coding, color: black

Contact removal tool - ST-Z0001 - 1607770



Unlocking tool for contact carriers for snapping in the M17 device connectors

### Protective cover

Protective cap - ST-Z0006 - 1607776



Plastic protection cap for connectors with M17 external thread

## Device connector, front mounting - ST-8ES1N8AW500S - 1620461

### Accessories

Metal protective cap - ST-Z0014 - 1616069



Metal protection cap for connectors with M17 external thread

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Metal protective cap - ST-Z0013 - 1616068



Metal protection cap with steel wire for connectors with M17 external thread