

SB-8EPCD8A9L33S - Coupler connector



1623711

<https://www.phoenixcontact.com/us/products/1623711>

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M40, Coupler connector, series: SB, straight long, shielded: yes, for standard and SPEEDCON interlock, No. of pos.: 4+4+4+PE / 3+N+PE, Direction of rotation: Standard, contact connection type: Pin, Crimp connection, cable diameter range: 14 mm ... 20.5 mm, coding: CAT5, coding 2, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244956

Your advantages

- Transmission of signals, data, and power in just a single connector
- CAT5 data interface for up to 100 Mbps
- Mechanical coding reliably prevents incorrect connections
- Safe use in the field, thanks to high degree of protection
- Consistent EMC protection for reliable connection solutions in the industrial environment

Commercial data

| | |
|--------------------------------------|--------------------------------|
| Item number | 1623711 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Note | Made to order (non-returnable) |
| Sales key | AB33 |
| Product key | ABRCEG |
| Catalog page | Page 127 (C-2-2019) |
| GTIN | 4055626194714 |
| Weight per piece (including packing) | 22.22 g |
| Weight per piece (excluding packing) | 22.22 g |
| Customs tariff number | 85366990 |
| Country of origin | DE |

Technical data

Notes

| | |
|--------------------|--|
| Order information: | Crimp contacts, 4 x Ø 0.8 mm, 4 x Ø 1 mm, 5 x Ø 3.6 mm, order separately |
|--------------------|--|

Safety note

| | |
|---|--|
| Safety note | <p>WARNING: The connectors may not be plugged in or disconnected under load. Ignoring the warning or improper use may damage persons and/or property.</p> |
| | <ul style="list-style-type: none"> • 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. |
| | <ul style="list-style-type: none"> • 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. |
| | <ul style="list-style-type: none"> • The products are suitable for applications in plant, controller, and electrical device engineering. |
| | <ul style="list-style-type: none"> • When operating the connectors in outdoor applications, they must be separately protected against environmental influences. |
| | <ul style="list-style-type: none"> • Assembled products may not be manipulated or improperly opened. |
| | <ul style="list-style-type: none"> • 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 phoenixcontact.com/products). |
| | <ul style="list-style-type: none"> • When using the product in direct connection with third-party manufacturers, the user is responsible. |
| | <ul style="list-style-type: none"> • For operating voltages > 50 V AC, conductive connector housings must be grounded |
| | <ul style="list-style-type: none"> • 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 |
| | <ul style="list-style-type: none"> • Observe the corresponding technical data. You will find information: <ul style="list-style-type: none"> o On the product o On the packing label o In the supplied documentation o Online at phoenixcontact.com/products under the product |
| | <ul style="list-style-type: none"> • Only use tools recommended by Phoenix Contact |
| | <ul style="list-style-type: none"> • The installation notes/Design In documents online on the download page at phoenixcontact.com/products must be observed for this product. |
| | <ul style="list-style-type: none"> • Use a protective cap to protect connectors that are not in use. The suitable accessories are available online in the accessory section of the product at phoenixcontact.com/products |
| <ul style="list-style-type: none"> • Operate the connector only when it is fully plugged in and interlocked. | |
| <ul style="list-style-type: none"> • Ensure that when laying the cable, the tensile load on the | |

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| | connectors does not exceed the upper limit specified in the standards. |
| | <ul style="list-style-type: none"> • Observe the minimum bending radius of the cable. Lay the cable without twisting it. |
| | <ul style="list-style-type: none"> • 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). |

Product properties

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

Connector

Insulating body

| | |
|---|-----------------------------------|
| Data rate | 100 Mbps |
| Coding | CAT5, coding 2 |
| Connection method | Crimp connection |
| Contact switching type | Pin |
| Application | Hybrid |
| Number of positions | 13 |
| Direction of rotation | Standard |
| Connection profile | 4+4+4+PE / 3+N+PE |
| Contact diameter Power contacts | 3.6 mm |
| Litz wire cross-section Power contacts min. | 2.5 mm ² |
| Litz wire cross-section Power contacts max. | 16 mm ² |
| Rated current Power contacts | 70 A |
| Note | for max. connection cross section |
| Rated voltage | 630 V AC |
| Rated surge voltage | 6 kV |
| Overvoltage category | III |
| Degree of pollution | 3 |
| Rated voltage (II/3) power contact | 850 V DC |
| Rated voltage (III/3) power contact | 630 V AC |
| Contact diameter Signal contacts | 1 mm |
| Litz wire cross-section Signal contacts min. | 0.06 mm ² |
| Litz wire cross-section Signal contacts max. | 1.5 mm ² |
| Nominal current per signal contact | 8 A |
| Note | for max. connection cross section |
| Rated surge voltage | 6 kV |
| Rated voltage (III/3) signal contact | 500 V |
| Contact diameter Data contacts | 0.8 mm |
| Litz wire cross-section Data contacts min. | 0.08 mm ² |
| Litz wire cross-section Data contacts max. | 0.5 mm ² |

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|--|-----------------------------------|
| Rated current per data contact at 25°C | 3.6 A |
| Note | for max. connection cross section |
| Rated surge voltage | 1.5 kV |
| Installation height | 2000 m |

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) | IP68/IP69K |
| Thread type | M40 |

Seal

| | |
|-------------------------|-------------------|
| External cable diameter | 14 mm ... 20.5 mm |
| Seal material | FKM |

Environmental and real-life conditions

Ambient conditions

| | |
|---------------------------------|--|
| Ambient temperature (operation) | -40 °C ... 115 °C (see derating curve) |
|---------------------------------|--|

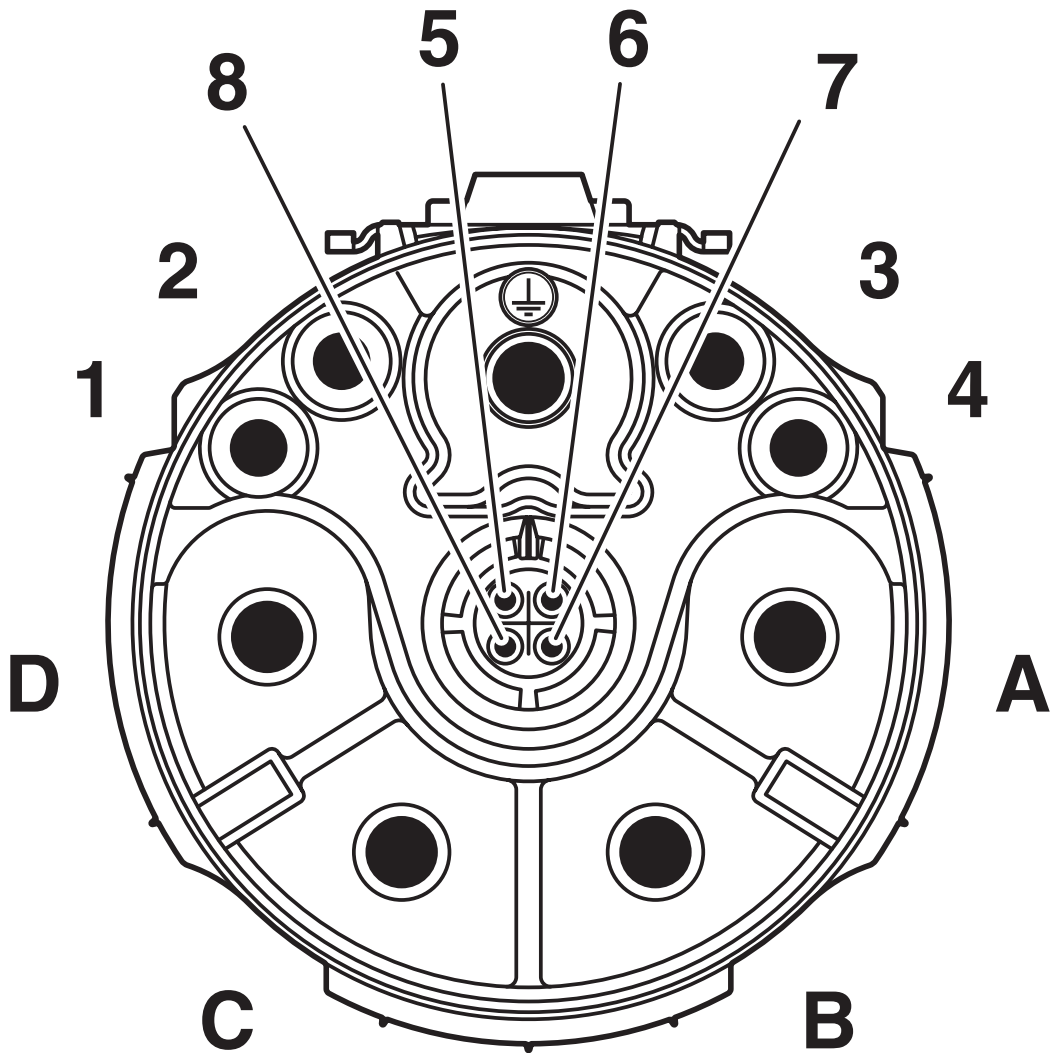
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Drawings

Schematic diagram



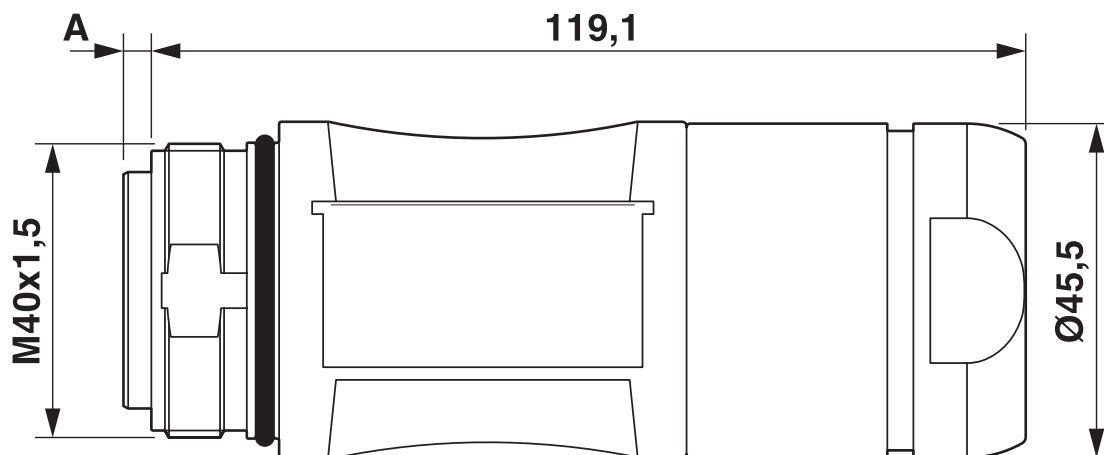
Pin assignment of pin CAT5, coding 2

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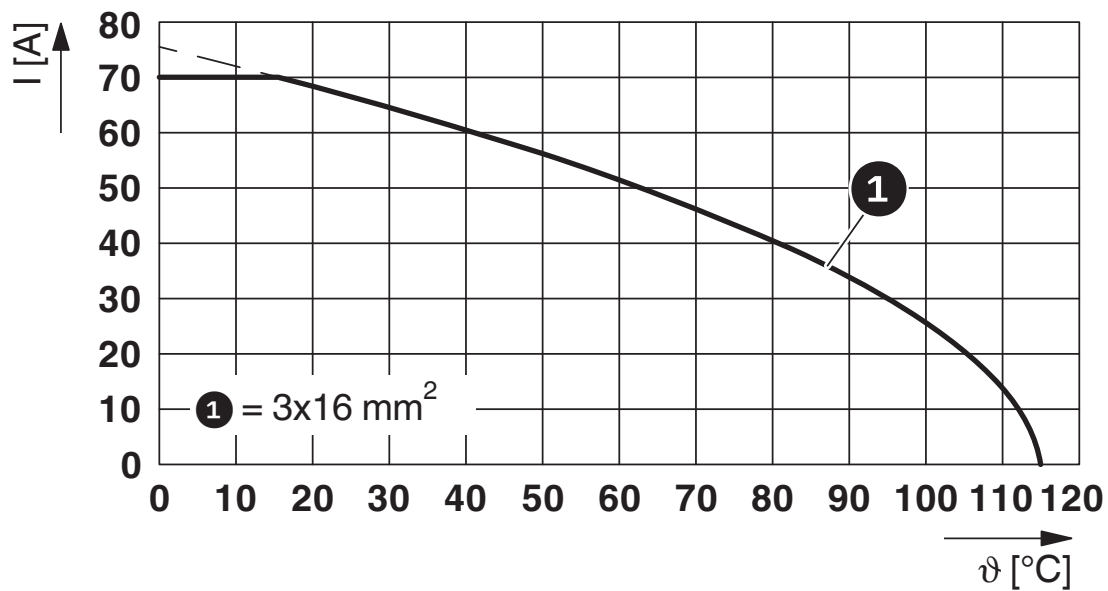
<https://www.phoenixcontact.com/us/products/1623711>

Dimensional drawing



Pin version: dimension A = 3.8 mm, socket version: dimension A = 0.15 mm

Diagram



I = current strength, ϑ = ambient temperature, power contacts A-C: 3x up to 70 A, signal contacts: 4x 2 A constant, data contacts: no load

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1623711>

|  cUL Recognized Approval ID: E468743-20170914 | | | | |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| Power | 600 V | 42 A | - 6 | - |
| Signal | 500 V | 4 A | - 16 | - |
| Data | 30 V | 1 A | - 22 | - |

|  UL Recognized Approval ID: E468743-20170914 | | | | |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| Power | 600 V | 50 A | - 6 | - |
| Signal | 500 V | 4 A | - 16 | - |
| Data | 30 V | 1 A | - 22 | - |

|  UL Recognized Approval ID: E153698-20190718 | | | | |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| Power | 600 V | 70 A | - | - |
| Signal | 500 V | 4 A | - | - |
| Data | 50 V | 1 A | - | - |

|  cUL Recognized Approval ID: E153698-20190718 | | | | |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| Power | 600 V | 28 A | - | - |
| Signal | 500 V | 4 A | - | - |
| Data | 50 V | 1 A | - | - |

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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

EU RoHS

| | |
|---|---------------|
| Fulfills EU RoHS substance requirements | Yes |
| Exemption | 6(b), 6(b)-II |

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 | 3d339521-e5a7-4bc8-914b-5129e9409376 |

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Accessories

SF-08KP010 - Crimp contact

1621574

<https://www.phoenixcontact.com/us/products/1621574>



Crimp contact, Pin, turned, contact diameter: 0.8 mm, crimp range: 0.08 mm² ... 0.25 mm², Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244458

SF-08KP020 - Crimp contact

1621575

<https://www.phoenixcontact.com/us/products/1621575>



Crimp contact, Pin, turned, contact diameter: 0.8 mm, crimp range: 0.34 mm² ... 0.5 mm², Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244459

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SB-Z0001 - Metal protective cap

1623827

<https://www.phoenixcontact.com/us/products/1623827>



Metal protective cap, Screw locking mechanism, M40, degree of protection: IP67/68/69K, series: SM, SB, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244989

KC-88014448/1,00 - Hybrid cable

1627298

<https://www.phoenixcontact.com/us/products/1627298>



Hybrid cable, cable length: 1 m, shielded: yes, color of outer sheath: orange RAL 2003

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KC-88014448/20,00 - Hybrid cable

1627299

<https://www.phoenixcontact.com/us/products/1627299>

Hybrid cable, cable length: 20 m, shielded: yes, color of outer sheath: orange
RAL 2003



KC-88014450-01,00 - Hybrid cable

1629279

<https://www.phoenixcontact.com/us/products/1629279>

Hybrid cable, cable length: 1 m, shielded: yes, color of outer sheath: orange
RAL 2003



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1623711

<https://www.phoenixcontact.com/us/products/1623711>

KC-88014450-50,00 - Hybrid cable

1629280

<https://www.phoenixcontact.com/us/products/1629280>

Hybrid cable, cable length: 50 m, shielded: yes, color of outer sheath: orange
RAL 2003



SM-Z0003 - Square mounting flange with O-ring

1607935

<https://www.phoenixcontact.com/us/products/1607935>

Square mounting flange with O-ring, Axial O-ring, 4x Ø4,2, series: SM



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SM-Z0004 - Square mounting flange

1607937

<https://www.phoenixcontact.com/us/products/1607937>



Square mounting flange, 4x Ø4,2, series: SM

PROT-M40-PW-OT-IP20 - Plastic protective cap

1577212

<https://www.phoenixcontact.com/us/products/1577212>



Plastic protective cap, M40, degree of protection: IP20, series: SM, SB

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SB-10KP001 - Crimp contact

1623607

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Crimp contact, Pin, turned, contact diameter: 1 mm, crimp range: 0.06 mm² ... 0.25 mm²

SB-10KP002 - Crimp contact

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Crimp contact, Pin, turned, contact diameter: 1 mm, crimp range: 0.34 mm² ... 0.5 mm²

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SB-10KP003 - Crimp contact

1623612

<https://www.phoenixcontact.com/us/products/1623612>



Crimp contact, Pin, turned, Single contact, contact diameter: 1 mm, crimp range: 0.5 mm² ... 1 mm²

SB-10KP004 - Crimp contact

1623613

<https://www.phoenixcontact.com/us/products/1623613>



Crimp contact, Pin, turned, Single contact, contact diameter: 1 mm, crimp range: 1 mm² ... 1.5 mm², Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244925

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SB-36KP002 - Crimp contact

1623383

<https://www.phoenixcontact.com/us/products/1623383>



Crimp contact, Pin, turned, contact diameter: 3.6 mm, crimp range: 2.5 mm² ... 4 mm², Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244894

SB-36KP003 - Crimp contact

1623384

<https://www.phoenixcontact.com/us/products/1623384>



Crimp contact, Pin, turned, Single contact, contact diameter: 3.6 mm, crimp range: 4 mm² ... 6 mm², Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244894

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1623711

<https://www.phoenixcontact.com/us/products/1623711>

SB-36KP004 - Crimp contact

1623385

<https://www.phoenixcontact.com/us/products/1623385>



Crimp contact, Pin, turned, Single contact, contact diameter: 3.6 mm, crimp range: 10 mm² ... 10 mm², Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244895

SB-36KP005 - Crimp contact

1623386

<https://www.phoenixcontact.com/us/products/1623386>



Crimp contact, Pin, turned, Single contact, contact diameter: 3.6 mm, crimp range: 16 mm² ... 16 mm², Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244896

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SM-Z0025 - Color coding

1620558

<https://www.phoenixcontact.com/us/products/1620558>

Color coding, color: green



SM-Z0026 - Color coding

1620559

<https://www.phoenixcontact.com/us/products/1620559>

Color coding, color: orange



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1623711

<https://www.phoenixcontact.com/us/products/1623711>

SM-Z0027 - Color coding

1620560

<https://www.phoenixcontact.com/us/products/1620560>

Color coding, color: black



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Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com