



Bolted connectors

for low voltage applications up to 1 kV

New low voltage connectors

Heart-shaped conductor channel for easier installation

PFISTERER reinvented the conductor channel for low voltage bolted connectors. Not only does the heart shape offer advantages in terms of easier installation, but the electrical and mechanical properties of the connectors have also been significantly improved. Proven contact and design features have been taken from the medium voltage SICON bolted connectors and adapted to the specific requirements of low voltage. The result is a new generation of bolted connectors that sets new standards.

Easier installation

The new, large heart-shaped conductor channel makes installation even easier. The bolts end flush with the straight upper edge of the conductor channel. This makes it easier to insert crushed or protruding conductor ends, and prevents the individual wires from catching or snagging. Sufficient space between the bolt and inspection hole or oil stop enables clear and secure positioning, even under challenging installation conditions.



Best electrical connection

The special thread on the shear bolts and grub screws enables high contact force with a low tightening torque. The friction disc at the bottom of the bolts prevents damage to individual strands during installation, and ensures optimum contact forces over the entire service life of the connection regardless of the conductor material and type.

The new conductor channel shape significantly increases the contact surface for round and sector-shaped conductors. The conductor channel grooves have been adapted from the SICON connectors. The individual transverse grooves break through the oxidation layer and ensure low contact resistance as well as high conductor pull-out forces.

Benefits

- Generously dimensioned conductor channel
- For all conductor materials and types, including 120° sector
- High contact force with low tightening torque
- Mechanically and electrically tested to IEC 61238-1-1 class A
- Suitable for heat-shrinkable joints in accordance with DIN SPEC 47640
- Generous space behind the bolt for secure conductor positioning

Simple and reliable

Depending on their size, the new shear bolts have one or two defined shear points. They ensure the smallest possible protrusion after installation. After the bolt shears off, the large size of the hexagon head prevents it of getting stuck in the installation tool. As an alternative to shear bolts, the connectors are also available with grub screws. All connectors meet the bolt protrusion requirements of the DIN SPEC 47640 standard. No rework is necessary for heat shrinking over the connectors.

Two-stage shear bolt

- Minimal bolt protrusion



Alternative

- Grub screw with inner hexagon
- Can be undone



Hexagon head shear bolt

- Does not get stuck in tool when it shears off

Rotating friction disc

- No damage to individual wires
- Optimum contact force

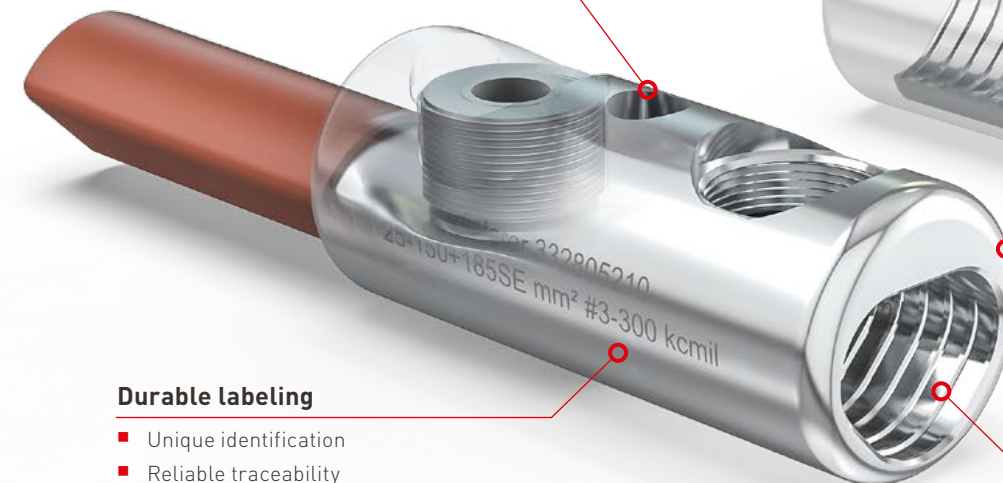


Oil stop

- Liquid and gas barrier
- Stop for positioning the conductor ends

Large inspection hole

- Easy positioning of conductor ends
- Enables installation with a parking position



Durable labeling

- Unique identification
- Reliable traceability

Connector body

- High short-circuit strength
- Generous space behind the bolt for secure conductor positioning

Conductor channel grooves

- Reliable electrical contact
- High conductor pull-out force

The right connector for every application

All connectors with heart shaped conductor channel are available in four different versions. Depending on the application, there is a choice of connector bodies with a large inspection hole or with an oil stop. Both versions are available with shear bolts or grub screws.

The connectors can be mounted regardless of the conductor material and type – even special types such as 120° sector conductors can be inserted without time-consuming step of round compression.

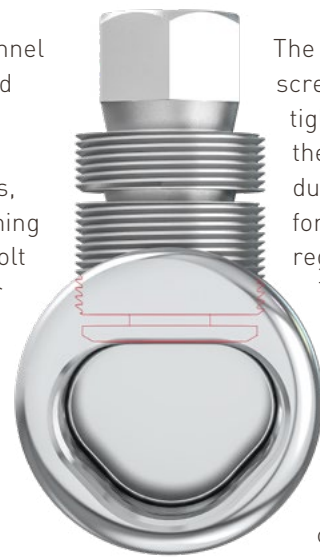
New low voltage connectors

Heart-shaped conductor channel for easier installation

PFISTERER reinvented the conductor channel for low voltage bolted connectors. Not only does the heart shape offer advantages in terms of easier installation, but the electrical and mechanical properties of the connectors have also been significantly improved. Proven contact and design features have been taken from the medium voltage SICON bolted connectors and adapted to the specific requirements of low voltage. The result is a new generation of bolted connectors that sets new standards.

Easier installation

The new, large heart-shaped conductor channel makes installation even easier. The bolts end flush with the straight upper edge of the conductor channel. This makes it easier to insert crushed or protruding conductor ends, and prevents the individual wires from catching or snagging. Sufficient space between the bolt and inspection hole or oil stop enables clear and secure positioning, even under challenging installation conditions.



Best electrical connection

The special thread on the shear bolts and grub screws enables high contact force with a low tightening torque. The friction disc at the bottom of the bolts prevents damage to individual strands during installation, and ensures optimum contact forces over the entire service life of the connection regardless of the conductor material and type.

The new conductor channel shape significantly increases the contact surface for round and sector-shaped conductors. The conductor channel grooves have been adapted from the SICON connectors. The individual transverse grooves break through the oxidation layer and ensure low contact resistance as well as high conductor pull-out forces.

Benefits

- Generously dimensioned conductor channel
- For all conductor materials and types, including 120° sector
- High contact force with low tightening torque
- Mechanically and electrically tested to IEC 61238-1-1 class A
- Suitable for heat-shrinkable joints in accordance with DIN SPEC 47640
- Generous space behind the bolt for secure conductor positioning

Simple and reliable

Depending on their size, the new shear bolts have one or two defined shear points. They ensure the smallest possible protrusion after installation. After the bolt shears off, the large size of the hexagon head prevents it of getting stuck in the installation tool. As an alternative to shear bolts, the connectors are also available with grub screws. All connectors meet the bolt protrusion requirements of the DIN SPEC 47640 standard. No rework is necessary for heat shrinking over the connectors.



Product range

| Connector | Cable cross-section [mm²] | Conductor channel | Dimensions [mm] Length x diameter | Inspection hole | Liquid and gas barrier | Shear bolt | Grub screw | Width across flats | | Connector | Article numbers | | | |
|-----------|---------------------------|-------------------|--------------------------------------|-----------------|------------------------|------------|------------|--------------------|------------|--------------------------|----------------------------------|------------------------------|------------------------------|-----------------------------|
| | | | | | | | | Shear bolt | Grub screw | | Joint set according to DIN 47640 | Joint set with repair sleeve | Transition joint XLPE/PVC to | |
| | | | | | | | | Hexagon | Circle | | | | NAKLEY | N(A)KBA |
| | 1,5-16 Cu | | 30 x Ø10 | • | • | • | • | 2,5 | | 332 801 120 | 333 111 121 | | | |
| | | | | | | | | 2,5 | | 332 801 121 ¹ | 333 111 126 ² | | | |
| | 4-50 | | 40 x Ø18 | • | • | • | • | 8 | | 332 803 110 | 333 111 122 ³ | 333 115 221 ³ | | |
| | | | | | | | | 8 | | 332 803 210 | 333 111 222 ³ | 333 115 222 ³ | 333 114 220 ⁷ | 333 114 225 ^{7,10} |
| | | | | | | | | 5 | | 332 803 120 | | | | |
| | | | | | | | | 5 | | 332 803 220 | | | | |
| | 25-95 | | 55 x Ø24 | • | • | • | • | 10 | | 332 804 110 | 333 111 123 | 333 115 223 | | |
| | | | | | | | | 10 | | 332 804 210 | 333 111 223 | 333 115 224 | 333 114 221 | 333 114 226 ¹⁰ |
| | | | | | | | | 6 | | 332 804 120 | | | | |
| | | | | | | | | 6 | | 332 804 220 | | | | |
| | 25-150+185 SE | | 70 x Ø28 | • | • | • | • | 13 | | 332 805 110 | 333 111 124 ⁴ | 333 115 225 ⁴ | | |
| | | | | | | | | 13 | | 332 805 210 | 333 111 224 ⁴ | 333 115 226 ⁴ | 333 114 222 ⁹ | 333 114 227 ^{9,10} |
| | | | | | | | | 8 | | 332 805 120 | | | | |
| | | | | | | | | 8 | | 332 805 220 | | | | |
| | 25-185+240 SE | | 80 x Ø32 | • | • | • | • | 13 | | 332 806 110 | 333 111 127 ⁵ | | | |
| | | | | | | | | 13 | | 332 806 210 | 333 111 227 ⁵ | | 333 114 223 ⁸ | |
| | | | | | | | | 8 | | 332 806 120 | | | | |
| | | | | | | | | 8 | | 332 806 220 | | | | |
| | 95-240+300 SE | | 110 x Ø35 | • | • | • | • | 13 | | 332 807 110 | 333 111 125 ⁶ | 333 115 227 ⁶ | | |
| | | | | | | | | 13 | | 332 807 210 | 333 111 225 ⁶ | 333 115 228 ⁶ | 333 114 224 ⁶ | 333 114 229 ^{6,10} |
| | | | | | | | | 8 | | 332 807 120 | | | | |
| | | | | | | | | 8 | | 332 807 220 | | | | |

1 PU 5 pcs. | 2 For 5-core cables | 3 Cross-section range 16-50 mm² | 4 Cross-section range 35-150 mm² | 5 Cross-section range 95-185+240 SE (shrink tubes longer than DIN 47640 specification) | 6 Cross-section range 95-240 mm²
7 Cross-section range XLPE/PVC 16-50 - N(A)KBA/NAKLEY 10-35 | 8 Cross-section range XLPE/PVC 95-185+240SE - NAKLEY 95-185 | 9 Cross-section range XLPE/PVC 70-150 - N(A)KBA/NAKLEY 35-150 | 10 With solderless earthing kit

Transition joints for special applications

In addition to the standard connection joint kits, PFISTERER offers a wide range of transition joint kits for special applications. They enable simple, safe and reliable implementation of the transition from plastic insulated low voltage cables to paper insulated cables with three or four cores. A solderless earthing kit is included with all transition joints for N(A)KBA cables.



PFISTERER Holding SE

Rosenstraße 44
73650 Winterbach
Germany
Phone: +49 7181 7005 0
Fax: +49 7181 7005 565
info@pfisterer.com
www.pfisterer.com

In 1921, Karl Pfisterer founded his factory in Stuttgart for special electrical products with the aim of improving the world of power transmission. The PFISTERER Group has pursued this goal of quality and technological leadership for more than 100 years. Today, PFISTERER is one of the world's leading specialists and system suppliers for energy infrastructure – with a complete range of cable accessories, overhead line technology and components along the entire transmission chain from power generation to consumption. With state-of-the-art manufacturing processes and 1,200 employees at 19 international locations, PFISTERER not only connects the power grids of today and tomorrow, but also makes an important contribution to a sustainable and secure energy supply.