2DIREKT

Safe and simple cable connection for transformers and busbars

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2DIREKT
Simple, safe, versatile

In modern substation engineering, cable connections are increasingly implemented using screw technology. The 2DIREKT terminal clamp by PFISTERER is a solution for connections to transformers and busbars. 2DIREKT combines simple installation with a compact, cost-effective design.

Connects directly to transformer bushing or busbar

The 2DIREKT clamp is connected directly to the distribution transformer. It screws onto the transformer bushing and is secured via a clamping groove and clamping screw. This reduces the amount of installation work and the risk of connection errors. No cable lugs have to be pressed on, and no wire-end ferrules have to be fitted. There are fewer points of contact and transition resistance is minimised.

The 2DIREKT A version allows cables to be connected directly to busbars. Fine grooves on the underside of the clamp enables connection without additional components directly on the busbar.

Safety during installation and operation

The patented conductor connection system eliminates damage to the conductor during installation. A rotating plate on the base of the clamping bolt prevents individual fine-wire conductors from being damaged or even cut off. During operation, the plate functions like a spring and ensures constant contact pressure.

One clamp for all cross-sections

The 2DIREKT clamp can be used for multiple cross-sections. Various versions are available for cross-sections of 16-95 mm², 35-240 mm² and 185-400 mm². All forms of class 1, 2 and 5 copper conductors as well as class 1 and 2 aluminium conductors can be connected. This makes the 2DIREKT not only practical but also cost-effective. The right clamp is always available on site, and stockkeeping is much simpler.

2DIREKT clamps are electrically type-tested in accordance with IEC 61238-1 class A.

Compact, sophisticated design

2DIREKT offers two cable outlet directions in one body. The clamping channel and the threaded hole for the clamping screw are identical, so the conductor can be connected at a 90° angle if required. This ensures easy installation even in confined environments.

Benefits

- Conductors can be connected vertically and/or horizontally
- Connection without wire-end ferrule or cable lug
- Individual strands are not damaged
- Reduced space requirements
- Removable connection
- Installation with standard tools, no compression required
- Range-taking: fewer different types means simpler stockkeeping

2DIREKT facts

- Voltage: up to 1 kV
- Current: up to 4 kA
- Conductor class according to EN 60228: 
  - aluminium class 1 and 2
  - copper class 1, 2 and 5 (fine wire)
- Conductor cross-section: 16 to 400 mm²
- Transformer clamp for bushings per DIN EN 50386
2DIREKT offers fixed ball points for 2DIREKT and 2DIREKT XL suitable for connecting earthing and short-circuiting devices. They provide for reliable secure connections and are designed to remain stable over time with minimal contact resistance. Depending on the installation type, they can be used both in a free conductor channel on the underside of the clamp make line contact, directly on the busbar. Fine grooves on the clamping groove ensure comprehensive electrical connection for busbars. The clamp is mounted upside-down and guarantees easy assembly.

Connection for busbars

The 2DIREKT A version allows cables to be connected to busbars. The clamp is mounted upside-down for easy assembly. The cover for indoor use has a flip-back top for connecting earthing and short-circuiting devices. The cover for indoor use also acts as a flap to keep out dirt, and protect the connection from weathering. All versions meet the requirements of protection class IP2X.

<table>
<thead>
<tr>
<th>Conductor Conductor Connection Dimensions Assembly Article no.</th>
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<tbody>
<tr>
<td>35 – 240 Ø 24.4 Drilling Ø13.5 mm 64 30 34 SW8 55 331 745 005</td>
</tr>
<tr>
<td>35 – 240 Ø 24.4 Drilling M10 64 30 34 SW8 55 331 745 006</td>
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<tr>
<td>35 – 240 Ø 24.4 Stud M16 84 30 74 SW8 55 331 748 101</td>
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<tr>
<td>35 – 240 Ø 24.4 Thread M12 84 30 74 SW8 55 331 748 102</td>
</tr>
<tr>
<td>35 – 240 Ø 24.4 Stud M12 84 30 74 SW8 55 331 748 103</td>
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<tr>
<td>35 – 240 Ø 24.4 Stud M16 84 64 74 SW8 55 331 747 401</td>
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</tbody>
</table>

Fixed ball points

2DIREKT offers fixed ball points for 2DIREKT and 2DIREKT XL suitable for connecting earthing and short-circuiting devices. Fixed ball points with pressure screw or without pressure screw can only be used in free conductor channels on the underside of the clamp make line contact, directly on the busbar. Fine grooves on the clamping groove ensure comprehensive electrical connection for busbars. The clamp is mounted upside-down and guarantees easy assembly.

Covers with testing option

Specially designed covers ensure comprehensive personal safety and operational reliability. They are available for indoor and outdoor applications. They make the installation process easier and prevent dirt from entering the connection. They are available for indoor and outdoor applications and can be used both in a free conductor channel on the underside of the clamp make line contact, directly on the busbar. Fine grooves on the clamping groove ensure comprehensive electrical connection for busbars. The clamp is mounted upside-down and guarantees easy assembly.
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 18 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.