



LV piercing connectors

Insulated low voltage bolted connectors with insulation piercing contact technology

LV piercing connectors

Live line working – easy & safe

Live line working is increasingly essential in low voltage networks. Bolted connectors used for this purpose should be easy to install and ensure the best possible occupational safety. The LV piercing connector family from PFISTERER has been developed to meet today's practical requirements. Durable contacts come as standard, and have been a PFISTERER core competence for more than 100 years.



New installations or repairs: LV piercing connectors easily and safely connect all low voltage cables – even under voltage.

Conductor does not have to be stripped

LV piercing connectors connect and make electrical contact with conductor ends, whatever the conductor cross-section, type and insulation. Because they pierce the insulation during installation, preparatory work on the conductor, such as stripping or brushing the contact area, is eliminated.

The shear bolts on LV piercing connectors are based on patented SICON technology. The bolts are equipped with a piercing system that reliably penetrates the conductor insulation during installation. A rotatable disc at the base of the bolt prevents damage to individual strands and ensures the correct contact force for all conductor materials.

Benefits

- Insulation does not have to be stripped from individual conductors
- Easy, safe installation – ideal for live line working
- Shear off bolts prevent installation errors
- IP2X protection against electrical hazards
- Consistent operational reliability, according to IEC 61238-1 Class A
- Compact design – less cast resin
- Creepage distance conform to EN 60664, Pollution Degree 1

Good occupational safety

The insulating body and plastic cover caps provide IP2X protection against finger contact in accordance with EN 60529. On type 3 and above, plastic flaps prevent inadvertent contact with the inside of the conductor channel. The elastomer insert ensures protection against contact after the bolts shear off.

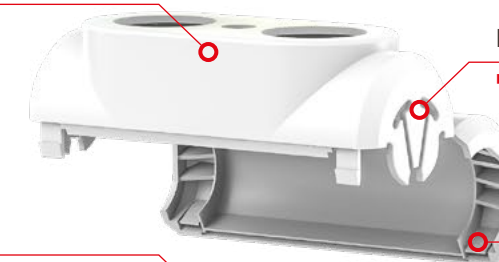
Cover caps with "spiral spring"

- Touch-safe during all installation steps



Insulating body

- IP2X protection against finger contact



Plastic flaps

- Protection against accidental contact

Elastomer inlay

- Protects against contact after the bolts sheared off



Insulating barrier

- Extends the creepage distance

SICON technology

- Stepless shear off bolt: Full utilisation of the thread loading ensures optimum contact forces



Piercing technology

- Rotatable disc pierces the insulation: Makes reliable contact through the conductor insulation on paper and plastic insulated cables

Inspection hole

- Easily check the position of the conductor in the connector



Tin-plated connector body

- Prevents the formation of an oxidation layer

Contact ribs

- Contact geometry with piercing function



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Low shear off torque

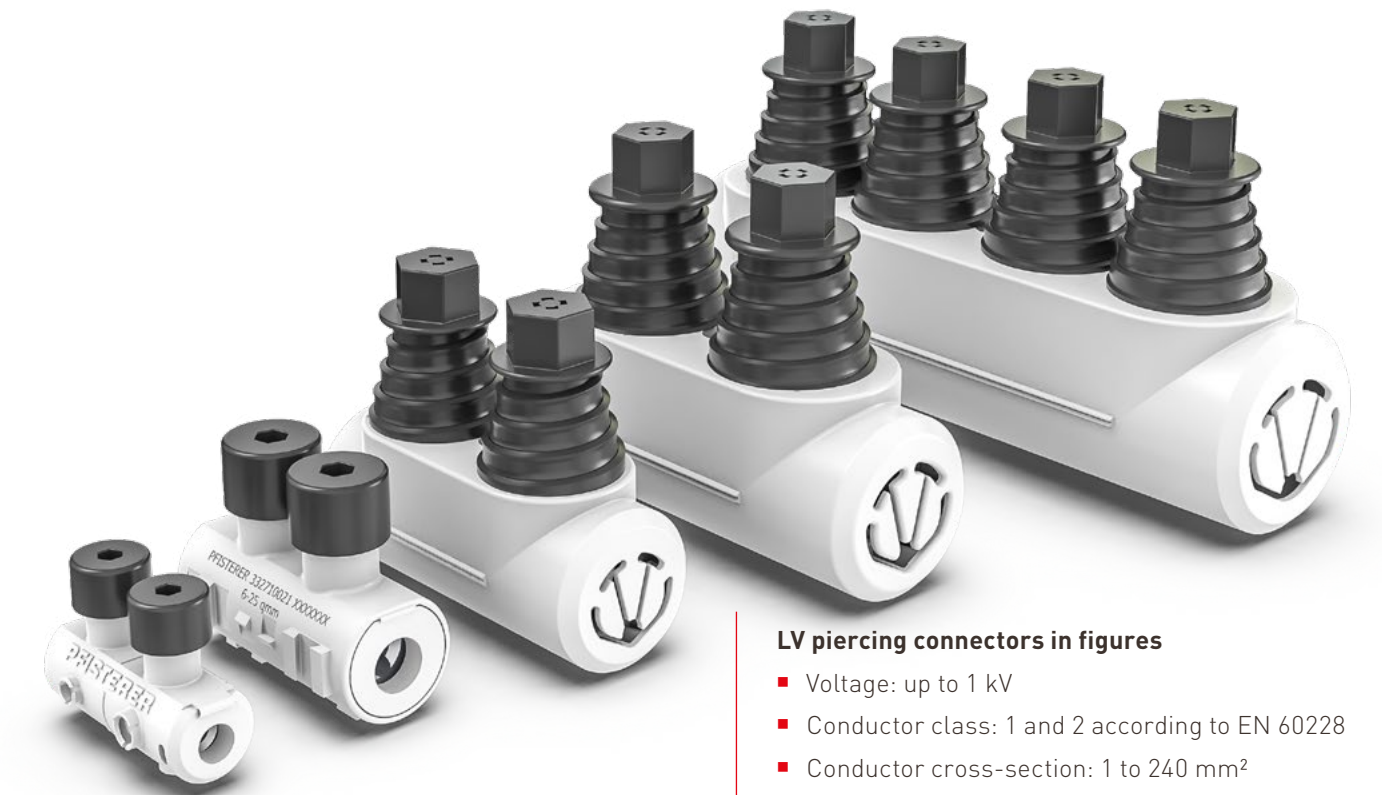
The shear off bolts are tightened using standard tools. Once the optimal contact force is reached, the bolt gently breaks away at a torque of between 2.5 and 27 Nm, depending on the type. This prevents common installation errors and makes live line working much safer.

Compact and well designed

Once installed, the small size of LV piercing connectors makes subsequent work easier. Compact joints with cast resin mean that fewer resources are needed for the final installation. The connectors can be placed close to each other without any further accessories. Type 1 and 2 are equipped with a push-together system: multiple connectors can be joined together to form a compact unit. With type 3 to 5, the elimination of the cover caps ensures the smallest possible dimensions.



Video



LV piercing connectors in figures

- Voltage: up to 1 kV
- Conductor class: 1 and 2 according to EN 60228
- Conductor cross-section: 1 to 240 mm²
- Shear torque: 2.5 to 27 Nm



LV piercing connectors product selection

Connector type	Shear torque [Nm]	Conductor cross-section [mm ²]				Spanner size	Article no.
		RE Al, CU	SE Al	RM Al, CU	SM Al, Cu		
Type 1	2,5	1 - 10 Cu	—	—	—	4	332 710 011
Type 2	8	6 - 25	10 - 16	6 - 16 + 25 Cu	—	6	332 710 021
Type 3	15	16 Cu + 25 - 70	25 - 95	16 Cu + 25 - 70	25 - 70	16	332 710 030
Type 4	27	35 Cu + 50 - 120	50 - 150	35 Cu + 50 - 120	35 Cu + 50 - 120	16	332 710 040
Type 5	27	70 Cu + 95 - 240	95 - 240	70 Cu + 95 - 240	70 Cu + 95 - 185	16	332 710 050



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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.