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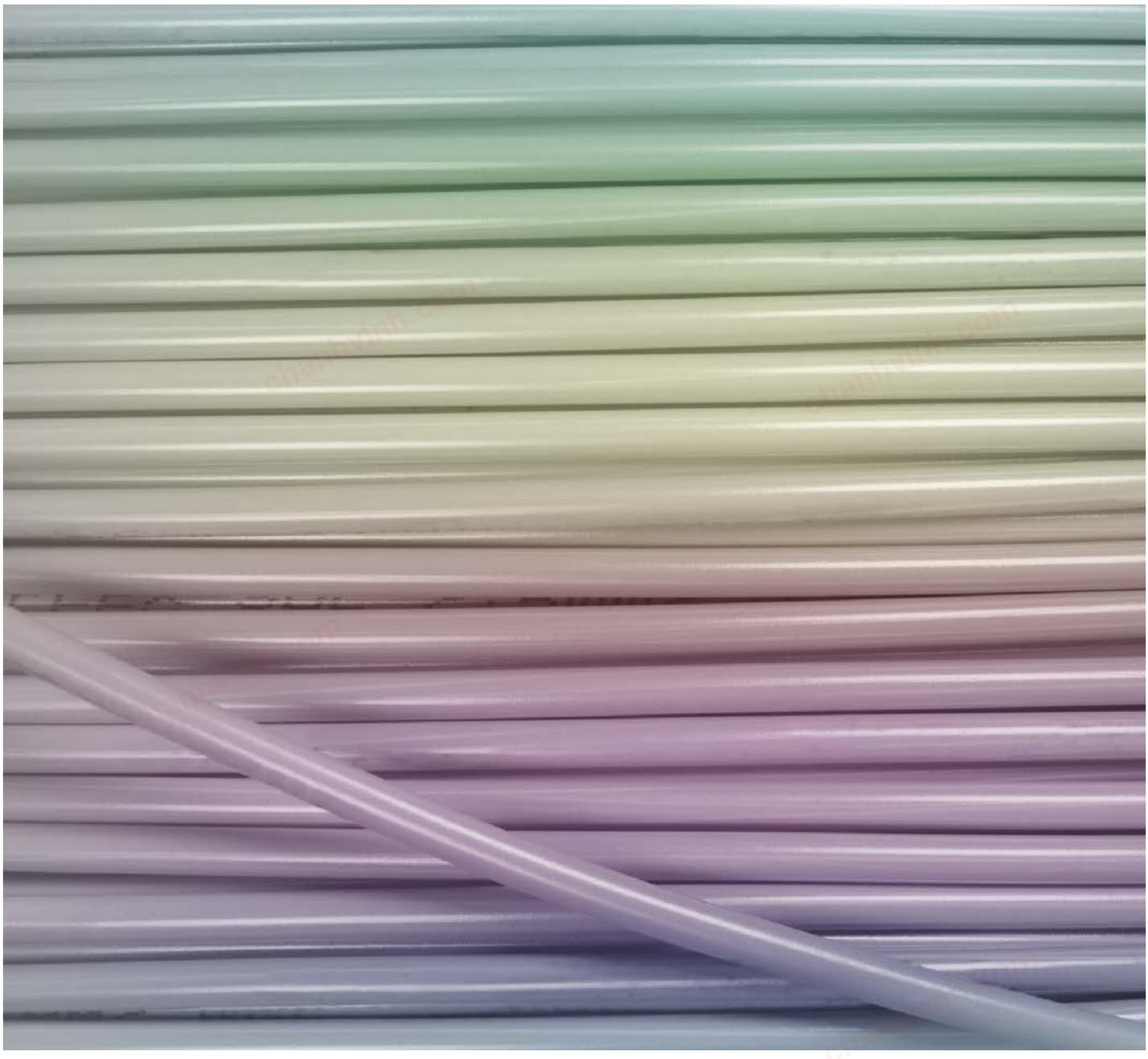
FAST MOVING TECHNOLOGY

STÄUBLI

# Cables and multistrand wires Main catalog

## Cableline | Test & Measurement

EN



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## STÄUBLI ELECTRICAL CONNECTORS

# Long-term solutions – Expert connections



**Stäubli Electrical Connectors is a leading international manufacturer of high-quality electrical contacts and connector systems and solutions for industrial applications. We are part of the Stäubli mechatronics group, the technology leader in connection solutions, robotics and textile machinery.**

Stäubli develops, produces, sells and services products for markets with the highest productivity and safety standards. As recognized specialists, our focus is always on solutions and customers. Many new developments got their start here and are now becoming established as worldwide standards.

Our customers depend on our expertise and our active support, even when dealing with unusual challenges. With Stäubli, you're entering into a long-term partnership built on reliability, dedication, and exceptional quality in both products and services.

**Pioneering contact technology for increased efficiency**

The entire Stäubli Electrical Connectors product range meets market expectations for high performance, the highest number of mating cycles, and long-lasting reliability for safe, durable operation. Our proven **MULTILAM technology** is ideal for all types of connections in industrial applications.

Customers in the **power transmission and distribution** sector rely on our consistent, loss-free transmission performance in all voltage ranges. The **automotive industry** depends on our high-efficiency connections for spot-welding applications in production lines. Harsh conditions in the **transportation sector** require high vibration resistance, maximum reliability, and compact design. These attributes are vitally important for railway and e-mobility applications. The safety and reliability of our products are essential for **test and measurement technology.**

In the growing field of **alternative energy**, our products have been setting standards since the 1990s. About half of the solar energy generated worldwide is transmitted through safe, long-lasting, high-performance Stäubli connectors.

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# Applications and advantages



**Stäubli Electrical Connectors looks back on years of experience in the production of multi-stranded wires with PVC, silicone and TPE insulating materials.**

Our multi-stranded wires are based on super-fine, bright-soft electrolytic copper strands. Depending on the cross section, these may consist of hundreds or even thousands of individual wires, the majority with a diameter between 0.05 mm and 0.10 mm, stranded in a short twist.
The resulting high number of windings in combination with highly elastic insulating materials creates finished leads with an exceptional flexibility. Through the selection and combination of the finest raw materials, as well as the constant modernization of our production facilities, the range of multi-stranded wires has been extended over the years and adapted to the latest technical requirements and standards.

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# Ordering information regarding our multistrand wires

We sell our multi-strand wires on reels of various sizes, relative to the types of wire (see page 7).
For our standard order quantity, 100 metres, please order our 100 reel (order number 6X.XXXX-100*). For longer wires, please order our 999 reel (order number 6X.XXXX-999*). When ordering, please add the order number of the desired wire to the respective order number and replace the asterisk with the two-digit color code.
Delivery of wires below the standard order quantity is only possible on request.

# General information

### Colour code

For those items available in various colours, replace the asterisk "*" with the appropriate colour code.

| | | | |
|---|---|---|---|
| 20 | green-yellow | 26 | violet |
| 21 | black | 27 | brown |
| 22 | red | 28 | grey |
| 23 | blue | 29 | white |
| 24 | yellow | 33 | transparent |
| 25 | green | 34 | natural |

### Changes / Provisos

All data, illustrations and drawings in the catalogue have been carefully checked. They are in accordance with our experience to date, but no responsibility can be accepted for errors. We also reserve the right to make modifications for design and safety reasons. When designing equipment incorporating our components, it is therefore advisable not to rely solely on the data in the catalogue but to consult us to make sure this information is up to date. We shall be pleased to advise you.

### Copyright

The use of this catalogue for any other purpose, in whatever form, without our prior written consent is not permitted.

### RoHS ready

Directive 2011/65/EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

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# Silicone Insulated Multistrand Wires

## Insulating Material Silicone

### General characteristics

The outstanding properties of the silicone insulation include excellent flexibility and the ability to withstand brief contact with a soldering iron.
Good age resistance, high impact value, maximum elongation and tear strength, halogen-free and thus environment-friendly.

### Resistance to environmental influences

Very good weather and radiation resistance. Good chemical stability.

### Typical application

Used, e.g. for making up maximum flexibility test leads, wiring very flexible parts. An important safety feature is the silicone ash produced after burning which continues to insulate the wires in the event of a fire. This can mean the continued function of electrical installations in industrial plants.

### Used for the following wire types

SiliVolt..., SiliStrom, SILI-... (SN)

| Technical specifications | |
|---|---|
| Temperature range<br>- permanent (permanent steam-resitance)<br>- several hours<br>- temporary (eg. contact with soldering iron) | <br>–50 °C ... +150 °C<br>... +250 °C<br>... +300 °C |
| Relative permittivity | ~ 2,7 – 2,8 |
| Loss factor (frequency-dependent) | ~ 0,003 |
| Dielectric strength | 18 – 20 kV/mm |
| Maximum elongation | 500 % |
| Tear strength<br>(very high resistance to tearing) | 8,3 N/mm$^2$ |
| Hardness | 60 Shore A |

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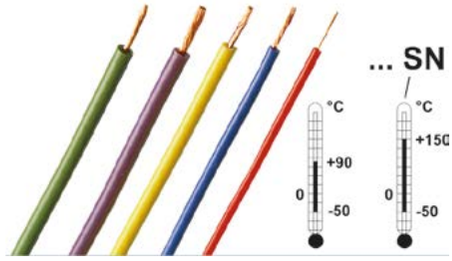
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# SiliVolt-E

Super flexible basic insulated stranded wire. Types ... SN with tinned wire strands for continuous use at temperatures up to 150 °C.

## Typical Application

Internal wiring of very mobile components and assemblies under high thermal stress. Super flexible connecting leads for low-voltage applications in the laboratory field.



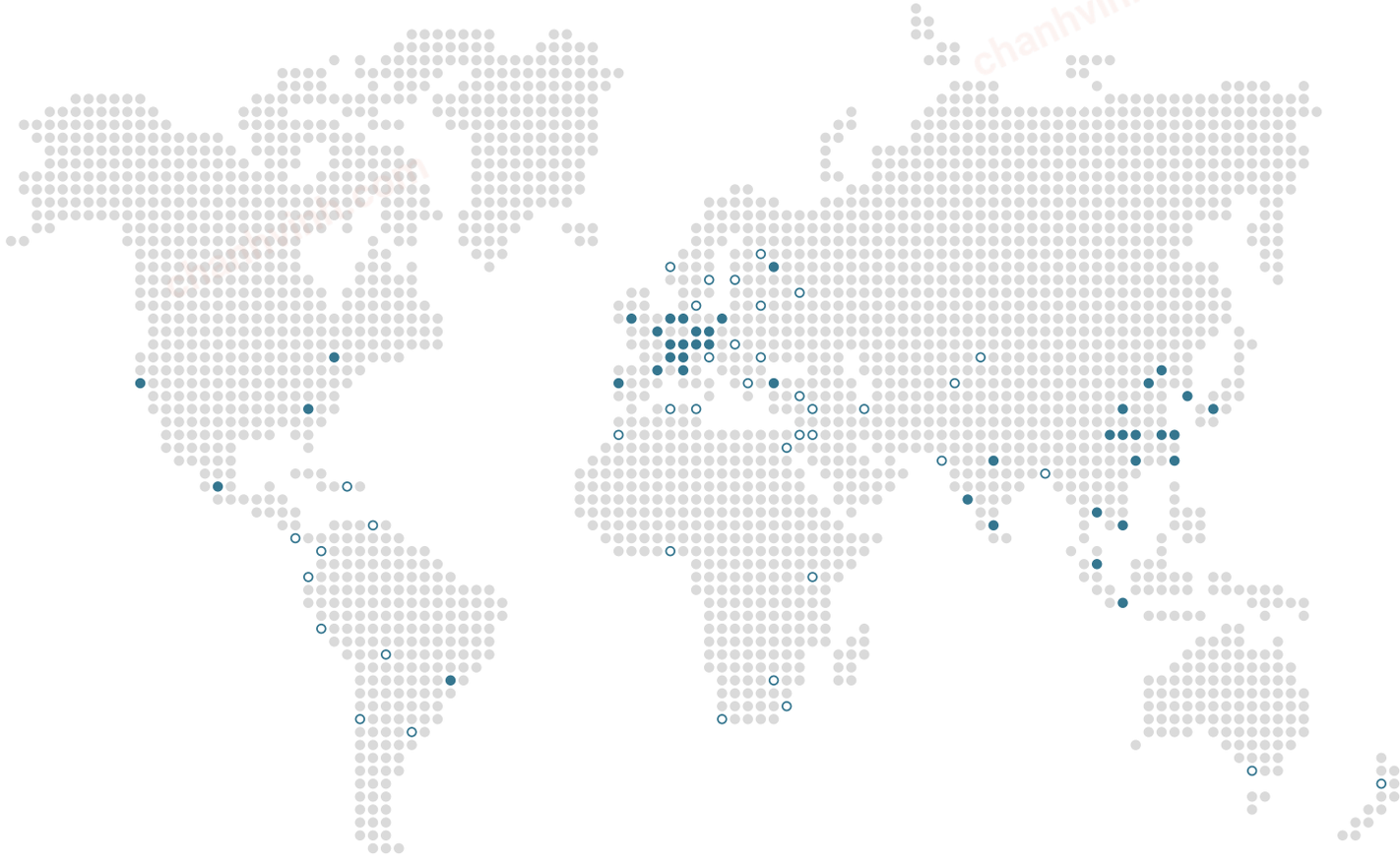

| Order No. | Type | Nominal cross section | Strand design | Weight of cable | Conductor diameter | Thickness insulation wall | Outer diameter | Rated voltage | Test voltage | Rated current | Certification marks | *Colours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | SIL | $mm^2$ | n x Ø mm | kg/km | mm | mm | mm | V | V AC | A | | |
| **61.7550-□*** | SILI-E 0,15 | 0,15 | 39 x 0,07 | 2,1 | 0,50 | 0,25 | 1,1 | 150 | 2000 | 6 | | 21 22 23 24 25 27 29 |
| **61.7551-□*** | SILI-E 0,25 | 0,25 | 66 x 0,07 | 4,5 | 0,65 | 0,50 | 1,7 | 300 | 2000 | 9 | | 21 22 23 24 25 27 29 |
| **61.7552-□*** | SILI-E 0,50 | 0,50 | 129 x 0,07 | 8,6 | 0,90 | 0,70 | 2,3 | 300 | 2000 | 10 | [1] | 21 22 23 24 25 27 29 |
| **61.7532-□*** | SILI-E 0,50 SN | 0,50 | 129 x 0,07 | 8,6 | 0,90 | 0,70 | 2,3 | 300 | 2000 | 10 | [2] | 21 22 23 |
| **61.7553-□*** | SILI-E 0,75 | 0,75 | 196 x 0,07 | 12 | 1,25 | 0,70 | 2,7 | 600 | 2500 | 15 | [1] | 20 21 22 23 27 29 |
| **61.7533-□*** | SILI-E 0,75 SN | 0,75 | 196 x 0,07 | 12 | 1,25 | 0,70 | 2,7 | 600 | 2500 | 15 | [2] | 21 22 23 |
| **61.7554-□*** | SILI-E 1,0 | 1,0 | 259 x 0,07 | 16 | 1,4 | 0,80 | 3,0 | 600 | 2500 | 19 | [1] | 20 21 22 23 24 25 29 |
| **61.7534-□*** | SILI-E 1,0 SN | 1,0 | 259 x 0,07 | 16 | 1,4 | 0,80 | 3,0 | 600 | 2500 | 19 | [2] | 21 22 23 |
| **61.7555-□*** | SILI-E 1,5 | 1,5 | 392 x 0,07 | 22 | 1,7 | 0,85 | 3,4 | 600 | 2500 | 24 | [1] | 20 21 22 23 26 29 |
| **61.7556-□*** | SILI-E 2,5 | 2,5 | 651 x 0,07 | 33 | 2,4 | 0,75 | 3,9 | 600 | 2500 | 32 | [1] | 20 21 22 23 24 25 27 |
| **61.7537-□*** | SILI-E 2,5 SN | 2,5 | 651 x 0,07 | 33 | 2,4 | 0,75 | 3,9 | 600 | 2500 | 32 | [2] | 21 22 23 |

[1] UL recognized: File E120880
Use: Test Probe Lead up to +60 °C

[2] UL recognized: File E120880
Use: Special Test Lead up to +105° C.

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TM Cab Main 11014119-en E 02.2021



● Stäubli Units ○ Representatives / Agents

# Global presence of the Stäubli Group

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