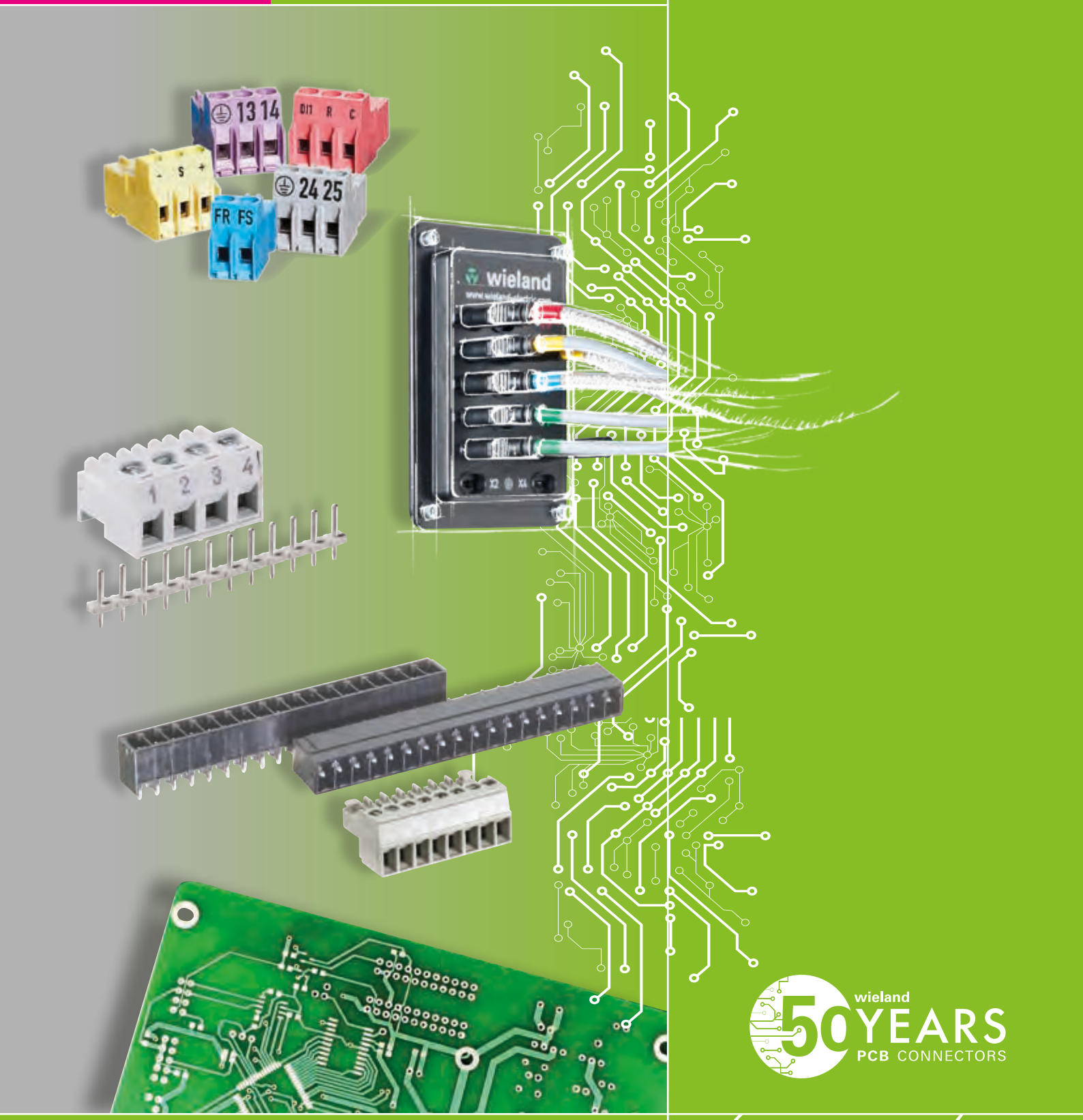
wiecon

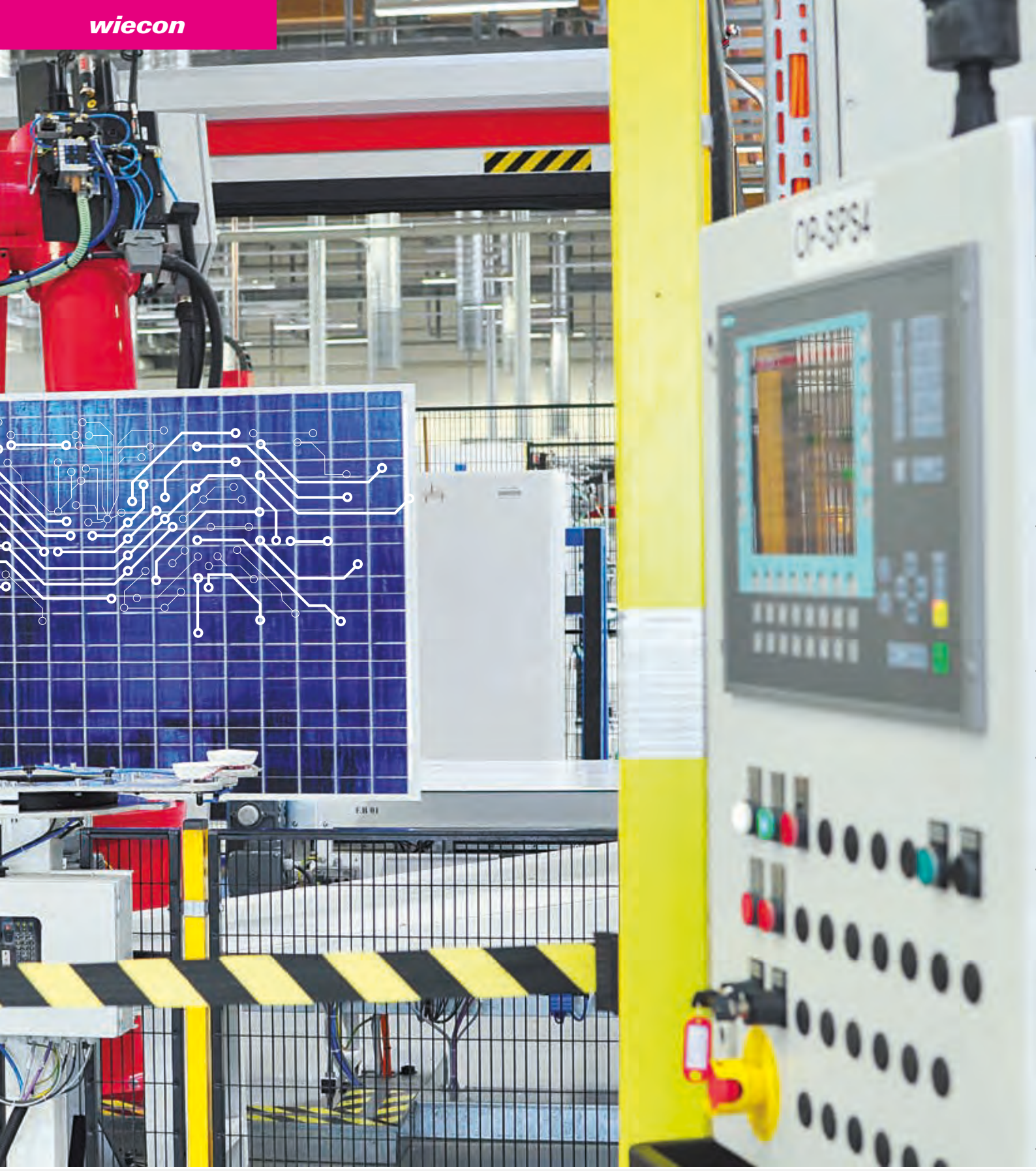
wieland




wieland 50 YEARS PCB CONNECTORS

# wiecon

## Printed Circuit Board terminals and connectors Overview



# Service.

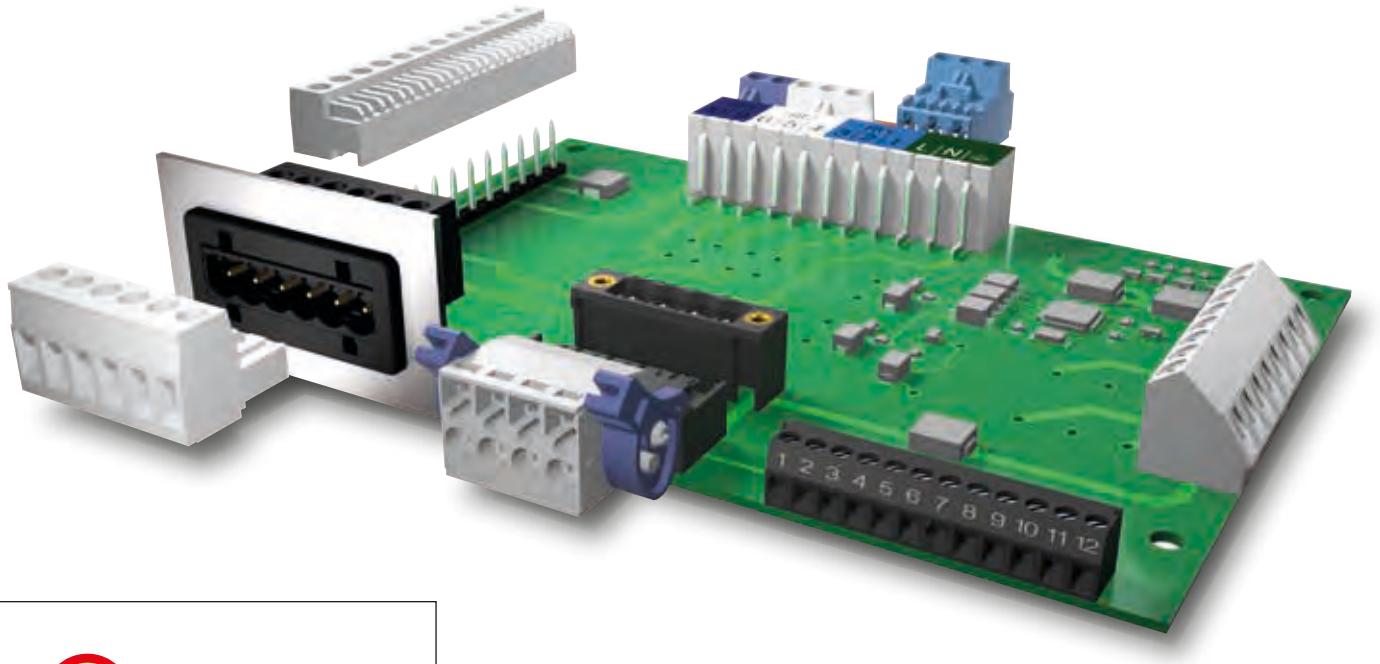
You can receive the item numbers listed in the brochure as samples within 48 hours.
In case of questions, contact us via **telephone.: +49 951 9324-991** or **at.ts@wieland-electric.com**

# Table of Contents.

# wiecon Portfolio.

Printed circuit board terminals, connectors and the innovative “FSC” signal transfer system.

Are you looking for the right contacting for circuit boards or in the control cabinet? We have the best solution for you. The “***wiecon***” portfolio offers you numerous products with a wide variety of connection technologies. Whether service-friendly connectors or proven circuit board terminals, at Wieland you will find the right products for power, data and signal transfer.



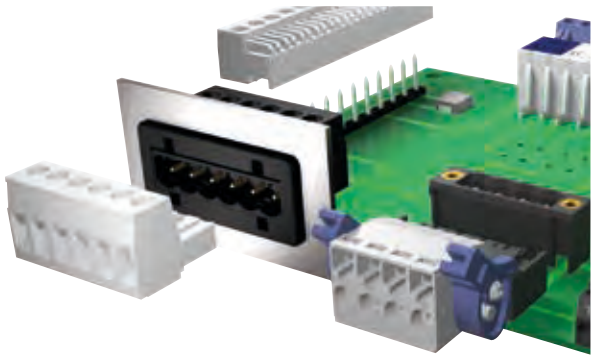

**No Flame** according to glowing wire test, according to household appliance standard DIN EN/IEC 60335-1. The housing material used was tested by the VDE and has passed the required glowing wire tests. It therefore fulfills the requirements of the stricter household appliance standard.

RoHS conform

**RoHS-compliant**
These items correspond to the specifications of the RoHS guideline.

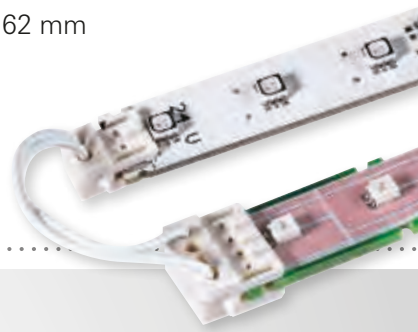
TAPE ON REEL

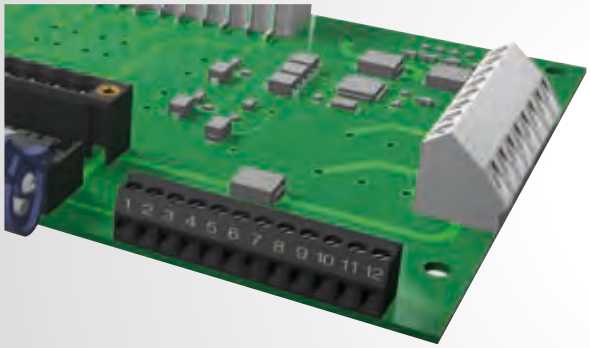
**Tape-on-reel product**
This product is available as tape-on-reel. For information about the number of poles, item numbers, reel widths, belt heights and packaging units, please see the data sheet in our eShop.



## PCB connectors:

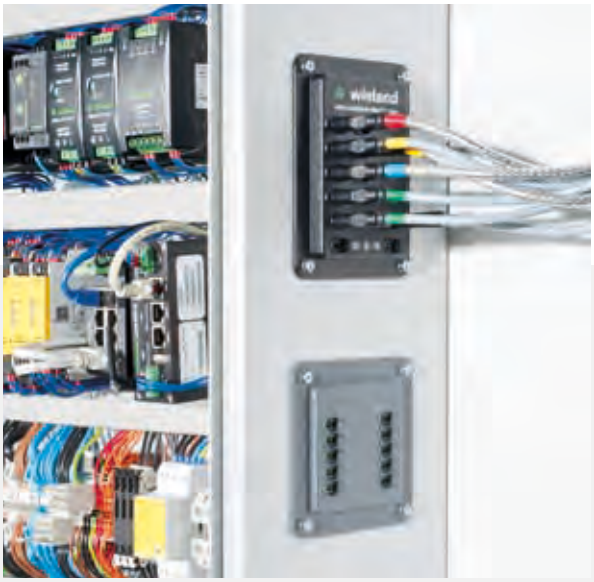
- Wire cross-sections from 0.14 mm² to 4 mm²
- For currents up to 12A and voltages up to 1000V
- With screw, tension spring or push-in connection
- Various connection directions and configurations
- Modular spacing 3.5 mm to 7.62 mm






## PCB terminals:

- Wire cross-sections from 0.14 mm² to 16 mm²
- For currents up to 76A and voltages up to 1000V
- With screw, tension spring or push-in connection
- Various connection directions and configurations
- Modular spacing 3.5 mm to 10.16 mm or 20.32 mm



## FSC: the pluggable signal cabling:

- "Fast signal connection" a **complete system**, compact and **tailored to your needs**
- Transfer data easily, quickly and securely and install in space-saving fashion
- For currents up to 3A and voltages up to 24V
- Up to 32 coding options
- IP 54

# wiecon Areas of application.

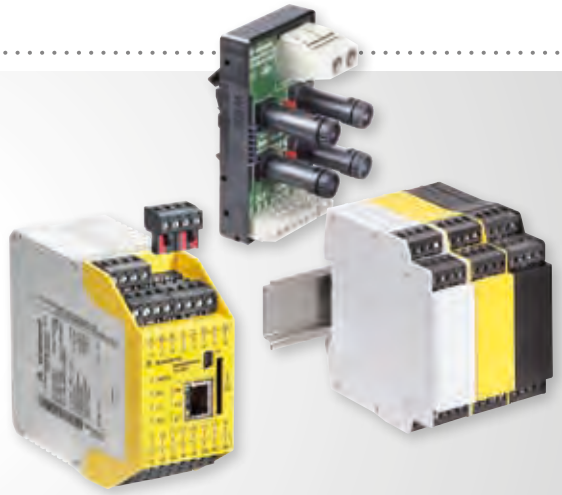
We offer the right solution for your application.

Whether the latest heating systems, state-of-the-art compressors or safety technology in mechanical engineering, with our ***wiecon*** printed circuit board terminal program we offer you varied, reliable and service-friendly solutions.

## Safety and security

**Examples of frequently-used products:**

- FSC system
- Housing systems **type WEB1001/1002** and ***wiebox***
- Printed circuit board connectors **type 8113**, **8213**, **8513**
- Pluggable printed circuit board terminals **type 8142**



## Heating, ventilation and air conditioning systems

**Examples of frequently-used products:**

- RAST 5 system **type 8105**
- Printed circuit board connectors **type 8113**, **8213**, **8513** and **8613**
- Printed circuit board terminals **type 8191 R**
- Pluggable printed circuit board terminals **type 8142 Z**
- Direct connectors **type DST 85**

## For the wind power sector

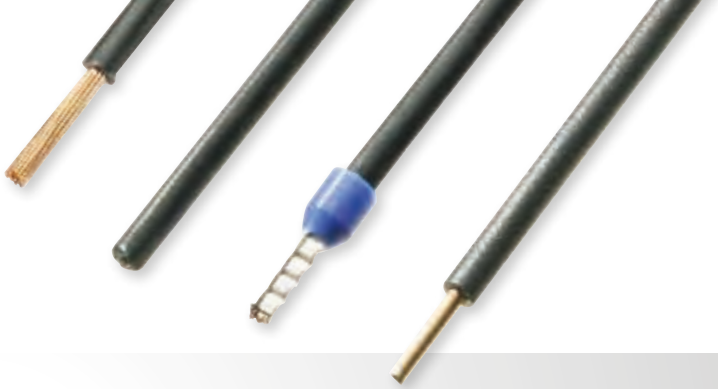
**Examples of frequently-used products:**

- Printed circuit board connectors **type 8113**, **8213**, **8513**
- Printed circuit board terminals **type 8191**, **8291**

## In the lighting sector

**Examples of frequently-used products:**

- Printed circuit board direct connectors **type LST**
- Printed circuit board connectors **type 8513** (also as flying connection)
- Printed circuit board terminals **type 8593**, **8562N**



# Connect safely and comfortably.

## Always the right connection technology.

Regardless of which connection technology you prefer or require, the Wieland product portfolio always offers you just the right high-quality connection components in the right model.

Crimp connection

Screw connection with rising cage clamp system

Screw connection with wire protection

Front screw connection

Push-in spring terminal with push-button

Tension spring connection

Insulation displacement connection (IDC)

# Service.

## Professional and fast.

Wieland is always service-oriented. Assembly of connection lines and individual printing are among our core competencies. We will be happy to assist you in customizing your project – just ask us.

**Great flexibility that does not set any limits for you**

On request, we will provide products for **special requirements**, e.g. requested colors, with special printing, with special contact fittings or completely assembled cables.

- Numerous color variants
- Special printing
- Customer-specific assembled cables
- Special markings, codings and pin lengths
- Fitted circuit boards

**Expertise you can rely on**

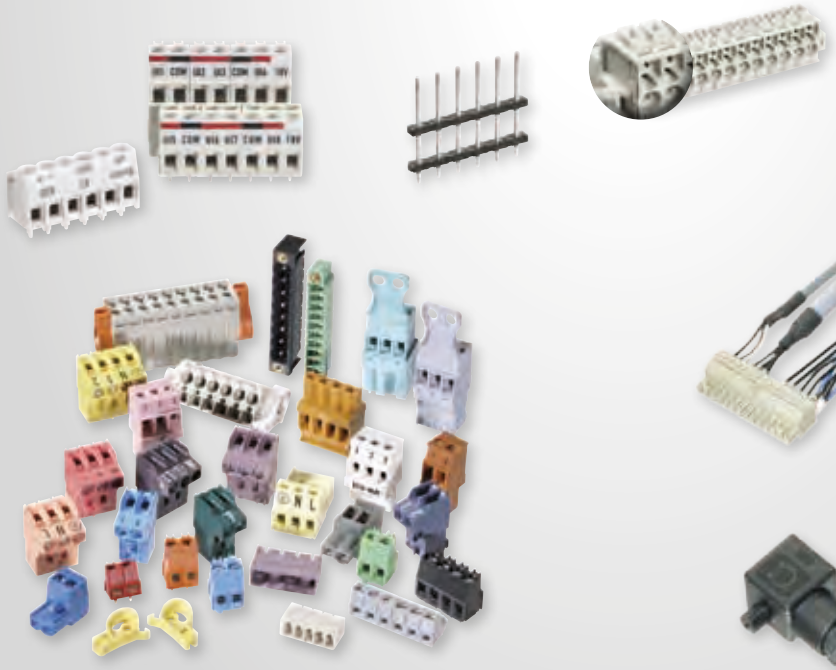
We offer you comprehensive **development and production expertise for individual solutions** – from the initial idea to series production.

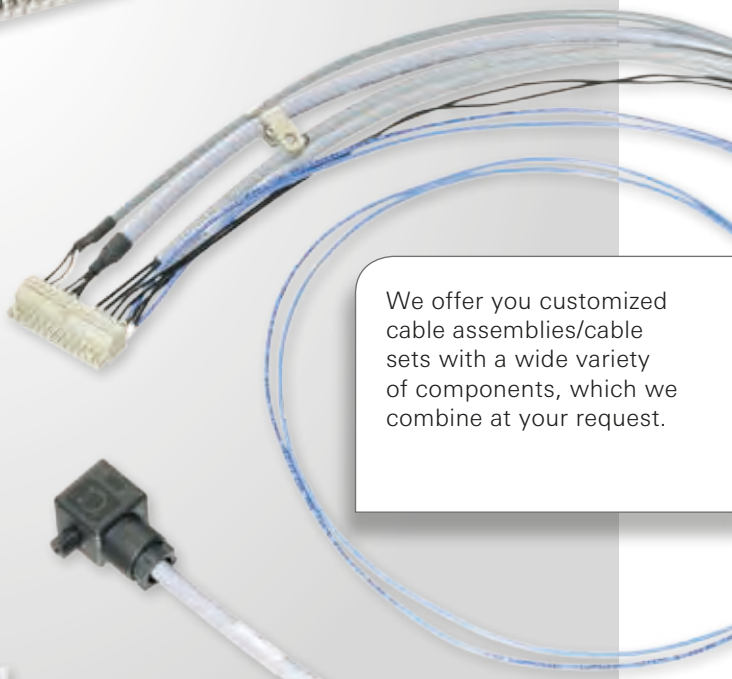
- 3D print patterns
- FEM calculations
- Modified fastening types
- Additional activation possibilities

**Best service & support saves you time**

Our motto is **customer satisfaction**, therefore, we always strive to make all information and products available to you as **easily** as possible. And naturally we will be delighted to advise you.

- Easy download of 3D data from the eShop
- Quick item selection with the **criteria selector** in the **eShop**
- You will find printed product overviews, for a quick overview even without Internet access, starting on p. 17 and page 27 of this brochure





We offer you customized cable assemblies/cable sets with a wide variety of components, which we combine at your request.

wiecon

# THR Technology.

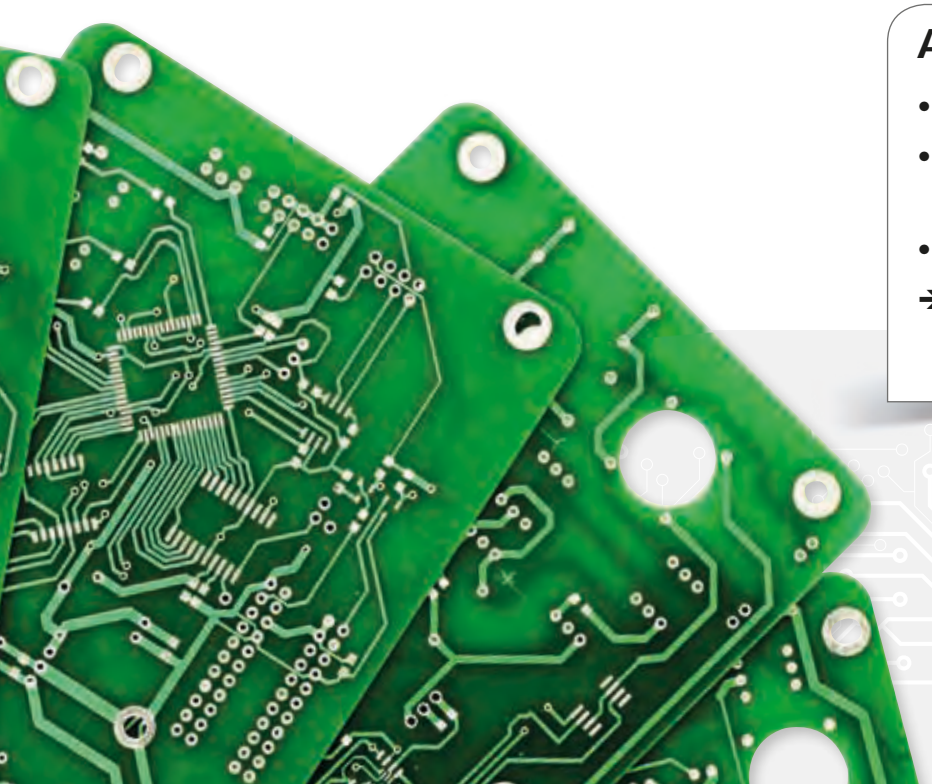
The efficient process for printed circuit board fitting.

With "**T**hrough **H**ole-**R**eflow Soldering," **wired components of high-temperature-resistant material** such as printed circuit board terminals, capacitors and resistances **are soldered to the circuit board**. In contrast to **SMDs (Surface Mounted Devices)**, the THR components are placed with through-hole contacts in prepared holes, which are filled with soldering paste, and they then run through the **reflow soldering process**. Here, the printed circuit board fitted with SMDs or THR components are moved at constant speed through different temperature zones: Pre-heating, reflow, cooling off in the soldering furnace. The heating of the components, the printed circuit board and the soldering point are done primarily through convection or in the vapor phase process.

## Arguments in favor of THR:

With THR, wired components and SMT components can be processed

- In one step
- In the same process
- With the same equipment
- Under the same conditions



## Automation benefits:

- Reduction of production costs
- Reduction of variants since **THR** parts are also suited for wave soldering
- Sparing of process steps

➔ **More time for your core business!**

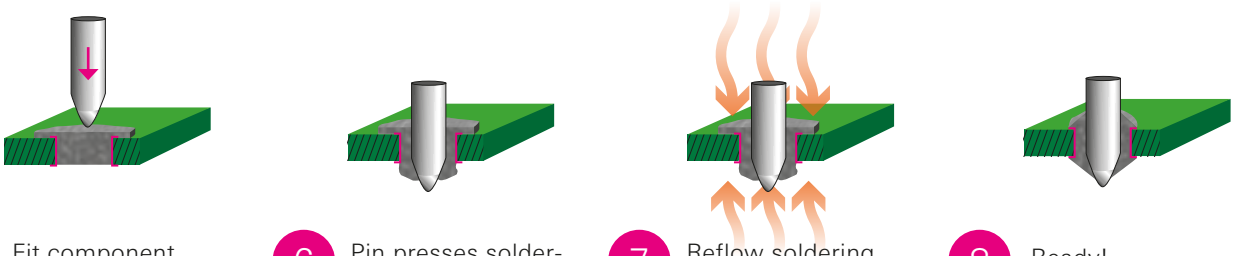
## THR production steps

1 LP with through-contacted hole

2 Template is positioned

3 Apply soldering paste

4 Fill hole with soldering paste



5 Fit component

6 Pin presses soldering paste through the hole

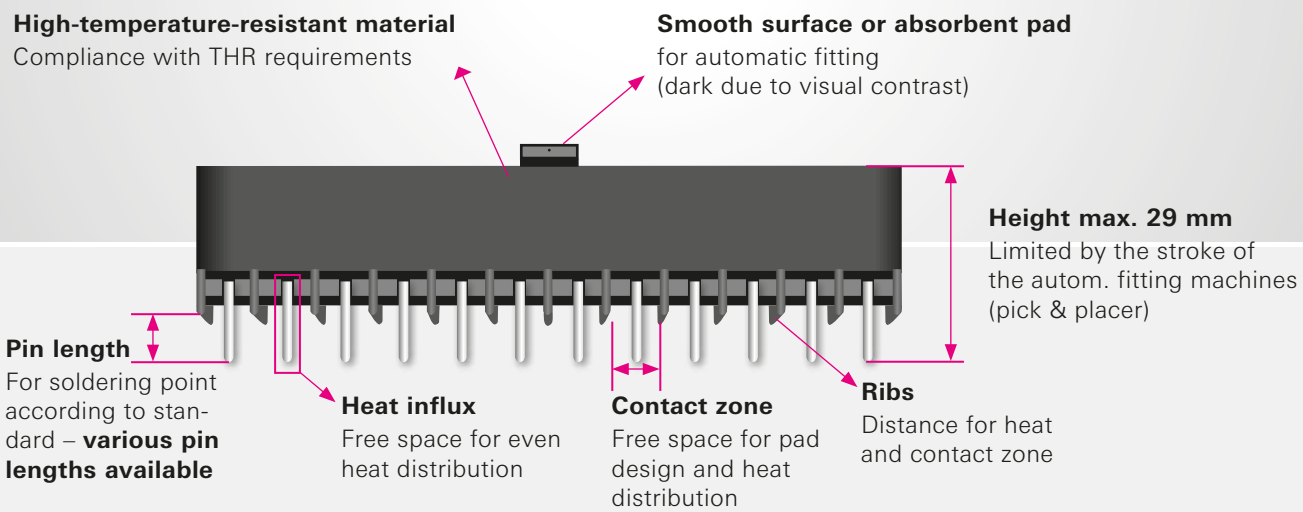
7 Reflow soldering

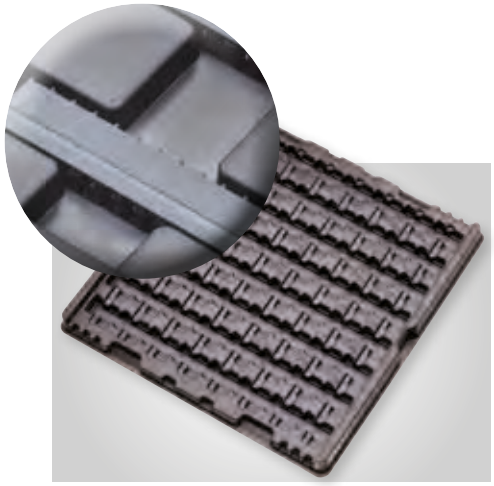
8 Ready!

## Requirements of THR components:

The most important requirements of THR components arise from the **automatic fitting capability**, the **optimal heat distribution** on the pin and the **THR temperature profile**.

## Wieland THR components offer this:





**Tray**
Use in series production for 12- and multi-pole parts

**Magazine**
Series production especially for un-shaped products (e.g. with jumper)

**Box**
Samples, zero series at the customer




**Tape on reel**
Series production
of 2- to 12-pole parts

## Important for your order:

The Wieland numbering system: **THR part numbers can be distinguished using the second and third place of the part number**

**25.195.02xy.0**
**e.g.:**

**Pin length y:**
**6** = 2.6mm pin length
**8** = 1.5mm pin length

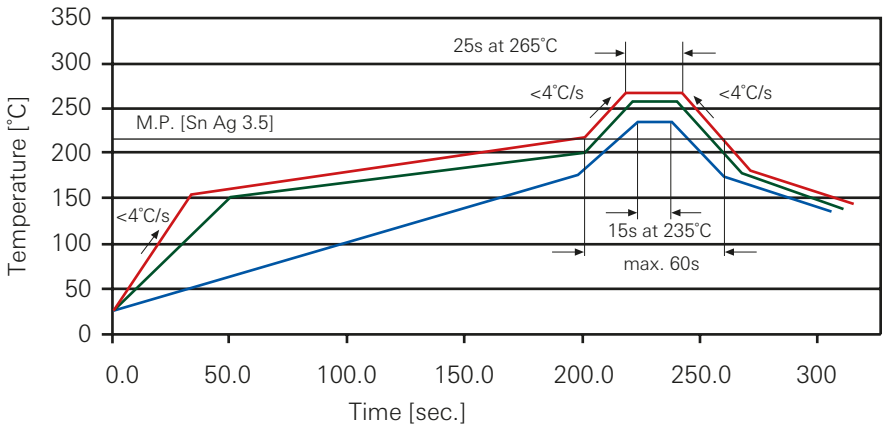
**Packaging x:**
**0** = Box packaging
**1** = Tape-on-reel packaging

**Number of poles:**
**2** = 2-pole

**e.g.: 25.195.0216.0**
**= plug connector with pin length 2.6 mm in tape-on-reel packaging, 2-pole**

## Temperature recommendations

(borrowing from DIN EN 61760-1)




max. profile

recommended profile

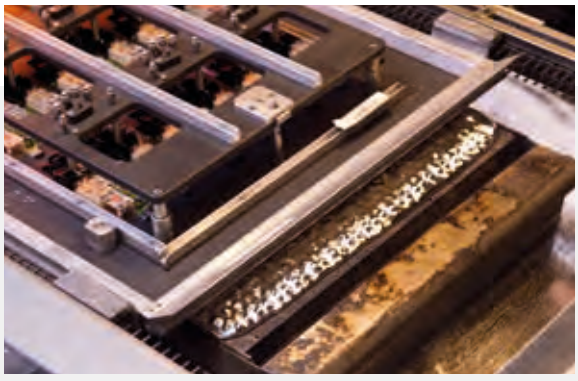
min. profile

# For all other cases.

Additional processes for contacting the printed circuit board.

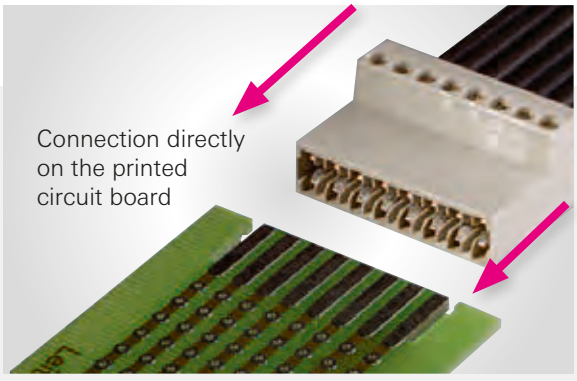
**Wave Soldering**

The classic soldering process for manufacturing electronic assemblies that are fitted mainly with wired assemblies. Characteristic of this process is that the soldered contact protrudes at least 1 mm from the underside of the printed circuit board.



**Direct plugging technology**

Direct plugging technology is a solder-free assembly technology that requires **no header**. The connector contacts directly on the defined contact pads at the edge of the printed circuit board, which are provided on the circuit board's layout.



# Printed circuit board connectors.

Safe, compact and yet highly-functional.

With PCB connectors, the device becomes more service-friendly for conductor and device replacement. The free selection of the connection technology allows solutions for a wide variety of applications. It is precisely in **building and HVAC technology** that the pluggable PCB terminals are used. Their compact design also offers you the benefit of pluggability.

## Features:

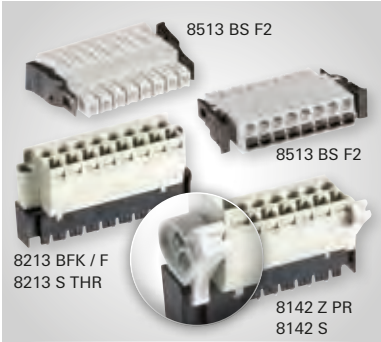
- Cross-sections from **0.14 mm²** to **4 mm²**
- For currents up to **12A** and voltages up to **1000V**
- With screw, tension spring or push-in connection
- Pitches 3.5 mm to 7.62 mm
- Compact and pluggable
- Codeable
- Plug connectors in THR material in various packaging types such as tape-on-reel, tray
- Customized printing
- Snap-in variants
- **No Flame** variants available
- Female connectors **can be arranged in a pitch**

## Benefits of the pluggability:

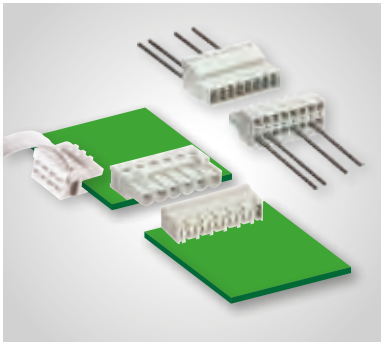
- Decentralized creation of assemblies
- Prevention of cabling mistakes
- Easy disassembly for service purposes
- Simplification of the conductor connection for tight spaces


**Space-saving**
Optimized for the largest cross-sections with the smallest space requirements


**Multi-level plug connectors**
Increasing of the number of clamp positions thanks to several levels




**Innovative interlocking**
Lock and release interlocking, screw flange and locking flange



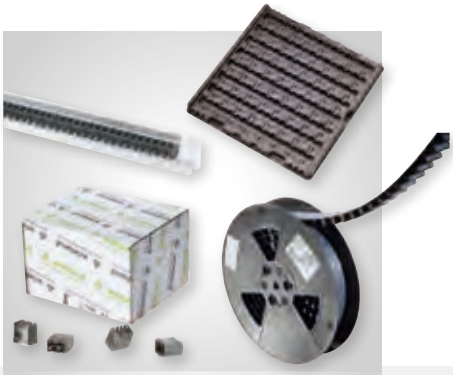
**Combination possibilities**
Wire to board, wire to wire and board to board connections


**Plug connectors without housing**
for wave and reflow soldering process with tin or silver surface

**Clear assignment**
Color distinction with customer-specific printing

**Mechanical coding, plug-gable or molded coded.**
Special coding tab and profiles prevent plugging mistakes


**Specially fitted**
E.g. with internal jumpering, jumpers, empty poles, exctraction aid



**Well-packaged**
Always kept safely with tape-on-reel, magazine, tray or in box packaging

# Search.

## Get to the product faster.

Search at Wieland and find what you're looking for easily online! Use our sophisticated **product selector** to access **3D data**, **drawings** and **technical data sheets** faster. As a registered user, you can also go to our **eShop** to call up prices and availabilities directly.


**Our Wieland eShop**:
Use our clear product selector in the **eShop** and get to the right product in two steps.

**As a registered user, you can order directly and display prices and availabilities.**

# Printed circuit board connectors

## 3.5 mm pitch

### THT headers

| | | | 8513 S/...G | 8513 S/...W | 8513 SEG |
|---|---|---|---|---|---|
| Item no. standard | | | 25.646.0853.0 | 25.647.0853.0 | 27.647.0853.1 |
| Item no. flange | | | 25.646.3853.0 | 25.647.3853.0 | |
| mm² / AWG (fine-stranded) | | | Depending on the female connector used | | |
| Current | A | IEC/UL/CSA | | | |
| Voltage [1] | V | IEC/UL/CSA | | | |

## 3.81 mm pitch

### THT headers

| | | | 8813 S/...G | 8813 S/...W |
|---|---|---|---|---|
| Item no. standard | | | 25.626.0853.0 | 25.627.0853.0 |
| Item no. flange | | | 25.626.3453.0 | 25.627.3853.0 |
| mm² / AWG (fine-stranded) | | | Depending on the female connector used | |
| Current | A | IEC/UL/CSA | | |
| Voltage [1] | V | IEC/UL/CSA | | |

## 5.0 mm pitch

### THT headers

| | | | 8113 S/...G | 8113 S/...W | 8113 S/...GOF | 8113 S/...WOF | 8113 S/...S1 | 8113 SEG/...W | 8113 SEG/...G | 8113 SE/...G | 8113 SE/...W |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Item no. standard | | | 25.330.3853.0 | 25.332.3853.0 | 99.208.9996.0 | 99.268.9996.0 | 25.394.3853.0 | 27.336.0953.0 | 27.334.0353.0 | 25.334.3353.0 | 25.336.3353.0 |
| Item no. flange | | | 25.338.3453.0 | 25.339.3853.0 | | | | | | | |
| mm² / AWG (fine-stranded) | | | Depending on the female connector used | | | Depending on the female connector used | | | Depending on the female connector used | | |
| Current | A | IEC/UL/CSA | | | | | | | | | |
| Voltage [1] | V | IEC/UL/CSA | | | | | | | | | |

## 5.08 mm pitch

### THT headers

| | | | 8213 S/...G | 8213 S/...W | 8213 S/...GOF | 8213 S/...WOF | 8213 S/...S1 | 8213 SEG/...W | 8213 SEG/...G | 8213 SE/...G | 8213 SE/...W |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Item no. standard | | | 25.350.3853.0 | 25.352.3853.0 | 99.236.9996.1 | 99.208.9996.2 | 25.396.3853.0 | 27.356.0353.0 | Upon request | 25.354.3353.0 | 25.356.3253.0 |
| Item no. flange | | | 25.359.3453.0 | 25.358.4053.0 | | | | | | | |
| mm² / AWG (fine-stranded) | | | Depending on the female connector used | | | Depending on the female connector used | | | Depending on the female connector used | | |
| Current | A | IEC/UL/CSA | | | | | | | | | |
| Voltage [1] | V | IEC/UL/CSA | | | | | | | | | |

[1] Rated voltage for overvoltage category III / pollution degree 2
[2] Plug connectors are available in different lengths



## Service at Wieland

For detailed technical data about this overview, as well as documents such as drawings and dimension diagrams, visit our eShop at **eshop.wieland-electric.com**

If you have questions about our products, our experts are available by telephone at +49 951 9324-994

## Express sample delivery

**We will be glad to send you samples of the items named in the overview within 48 hours of receipt of the order within Europe.**

**All of these items are delivered in a box.**

RoHS conform

TAPE ON REEL

All products are available in 2- to 16-pole versions, 17- to 24-pole versions on request.



# Board to board

## Inv. THT connector

| | 8213 BL/...G | 8213 BL/...W |
|---|---|---|
| | 25.342.3653.0 | 25.343.3353.0 |
| | - | - |
| | 12 / 15 / 15 | 12 / 15 / 15 |
| | 690 / 300 / 300 | 690 / 300 / 300 |

## THR headers [2]

| | 8213 S/...G THR | 8213 S/...W THR | 8213 S/...GOF THR | 8213 S/...WOF THR |
|---|---|---|---|---|
| | 25.350.3606.0 | 25.352.3406.0 | 26.350.3606.0 | 26.352.3806.0 |
| | 25.359.3306.0 | 25.358.3806.0 | | |
| | Depending on the female connector used | | | |



# Flying connection

## THR headers [2]

| | 8513 S/...G THR | 8513 S/...W THR | 8513 SEGN/...G THR | 8513 SEGN/...W THR | 8513 SDGN/...G THR | 8513 SDGN/...W THR |
|---|---|---|---|---|---|---|
| | 25.646.0808.0 | 25.647.0806.0 | 25.656.0808.0 | 25.657.0808.0 | 25.666.0806.0 | 25.667.0506.0 |
| | | | 25.656.6808.0 | 25.657.6708.0 | 25.666.6806.0 | 25.667.6806.0 |
| | Depending on the female connector used | | | Depending on the female connector used | | |

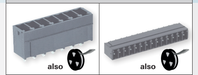
## 1.5 mm² connectors

| | 8513 B | 8513 BFK | 8513 BS |
|---|---|---|---|
| | 25.640.3853.0 | 25.630.3853.0 | 27.630.3253.0 |
| | 25.641.3853.0 | 25.631.3853.0 | 27.631.3353.0 |
| | 0.14 - 1.5 / 30 - 16 | 0.14 - 1.5 / 30 - 16 | 0.2 - 1.5 / 24 - 16 |
| | 8 / 8 / 5 | 8 / 8 / 5 | 8 / 8 / 8 |
| | 250 / 300 / 300 | 250 / 300 / 300 | 160 / 150 / 150 |

## Inv. 1.5 mm² connector

| | 8513 SU | 8513 SUFK |
|---|---|---|
| | 25.649.3853.0 | 25.642.3853.0 |
| | | |
| | 0.14 - 1.5 / 30 - 16 | 0.14 - 1.5 / 30 - 16 |
| | 8 / 8 / 5 | 8 / 8 / 5 |
| | 250 / 300 / 300 | 250 / 300 / 300 |

## THR headers [2]



| | 8813 S/...G THR | 8813 S/...W THR |
|---|---|---|
| | 27.626.0808.0 | 27.627.0808.0 |
| | Upon request | Upon request |
| | Depending on the female connector used | |

## 1.5 mm² connectors

| | 8813 B | 8813 B VR | 8813 B VL |
|---|---|---|---|
| | 25.620.3853.0 | 25.622.3853.0 | 25.624.3853.0 |
| | 25.621.3853.0 | 25.623.3453.0 | 25.625.3853.0 |
| | 0.14 - 1.5 / 30 - 16 | 0.14 - 1.5 / 30 - 16 | 0.14 - 1.5 / 30 - 16 |
| | 8 / 8 / 5 | 8 / 8 / 5 | 8 / 8 / 5 |
| | 250 / 300 / 300 | 250 / 300 / 300 | 250 / 300 / 300 |

**Connection types:**

**S** = Screw connection with rising cage clamp

**F** = tension spring connection

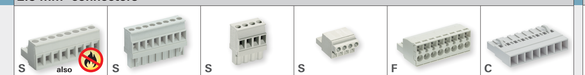
**P** = push-in connection

**C** = crimp connection

## THR headers [2]

| | 8113 S/...G THR | 8113 S/...W THR |
|---|---|---|
| | 25.330.3406.0 | 25.332.3406.0 |
| | | |
| | Depending on the female connector used | |

## 2.5 mm² connectors



| | 8113 B | 8113 B VR | 8113 B VL | 8113 B TOP | 8113 BFK | 8113 BK |
|---|---|---|---|---|---|---|
| | 25.320.3853.0 | 25.325.3853.0 | 25.326.3453.0 | 25.220.3453.0 | 25.820.3853.0 | 01.060.3853.0 (Iso) |
| | 25.322.3853.0 | | | | 25.821.3853.0 | 02.125.1727.0 Contacts |
| | 0.2 - 2.5 / 30 - 12 | 0.2 - 2.5 / 30 - 12 | 0.2 - 2.5 / 30 - 12 | 0.2 - 2.5 / 30 - 12 | 0.2 - 2.5 / 22 - 12 | 0.5 - 2.5 / 21 - 12 |
| | 12 / 15 / 15 | 12 / 15 / 15 | 12 / 15 / 15 | 12 / 15 / 15 | 12 / 12 / 12 | 12 / 15 / 13 |
| | 400 / 300 / 300 | 400 / 300 / 300 | 400 / 300 / 300 | 400 / 300 / 300 | 400 / 300 / 300 | 400 / 300 / 300 |

## IDC 0.75 mm²

| | 8113 BSK |
|---|---|
| | 25.399.9853.0 |
| | |
| | 0.75 / 20 - 18 |
| | 3 / 3 / 3 |
| | 400 / 300 / 300 |

## THR headers [2]



| | 8213 S/...G THR | 8213 S/...W THR | 8213 S/...GOF THR | 8213 S/...WOF THR |
|---|---|---|---|---|
| | 25.350.3606.0 | 25.352.3406.0 | 26.350.3606.0 | 26.352.3806.0 |
| | 25.359.3306.0 | 25.358.3806.0 | | |
| | Depending on the female connector used | | | |

## 2.5 mm² connectors

| | 8213 B | 8213 B VR | 8213 B VL | 8213 B TOP | 8213 BFK | 8213 B/...S |
|---|---|---|---|---|---|---|
| | 25.340.3853.0 | 25.345.3853.0 | 25.346.3853.0 | 25.240.3853.0 | 25.840.3553.0 | 27.341.3553.0 |
| | 25.323.3353.0 | 25.344.3853.0 | 25.349.3853.0 | 25.245.3853.0 | 25.841.3453.0 / 25.843.0853.0 | |
| | 0.2 - 2.5 / 30 - 12 | 0.2 - 2.5 / 30 - 12 | 0.2 - 2.5 / 30 - 12 | 0.2 - 2.5 / 30 - 12 | 0.2 - 2.5 / 22 - 12 | 0.5 - 2.5 / 26 - 12 |
| | 12 / 15 / 15 | 12 / 15 / 15 | 12 / 15 / 15 | 12 / 15 / 15 | 12 / 12 / 12 | 12 / 10 / 15 |
| | 400 / 300 / 300 | 400 / 300 / 300 | 400 / 300 / 300 | 400 / 300 / 300 | 400 / 300 / 300 | 400 / 300 / 300 |

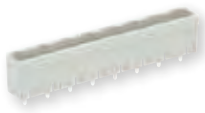
## Inv. connector

| | 8213 SUFK |
|---|---|
| | 25.857.3553.0 |
| | |
| | 0.2 - 2.5 / 22 - 12 |
| | 12 / 12 / 12 |
| | 400 / 300 / 300 |

# Printed circuit board connectors

## 7.5 mm pitch

### THT headers



| | | | 8313 S/...G | 8313 S/...W |
|---|---|---|---|---|
| Item no. standard | | | 25.370.3853.0 | 25.372.3753.0 |
| Item no. flange | | | 25.374.6853.0 | 25.374.2453.0 |
| mm² / AWG | (fine-stranded) | | Depending on the female connector used | |
| Current | A | IEC/UL/CSA | | |
| Voltage [1] | V | IEC/UL/CSA | | |

**Connection types:**

**S** = Screw connection with rising cage clamp

**F** = tension spring connection

## 7.5 mm pitch

### 2.5 mm² connector

S also

| | | | 8313 B |
|---|---|---|---|
| Item no. standard | | | 25.360.3553.0 |
| Item no. flange | | | 25.324.2253.0 |
| mm² / AWG | (fine-stranded) | | 0.14 - 2.5 / 22 - 12 |
| Current | A | IEC/UL/CSA | 12 / 15 / 15 |
| Voltage [1] | V | IEC/UL/CSA | 690 / 300 / 300 |

## 7.62 mm pitch

### THT headers

| | | | 8413 S/...G | 8413 S/...W |
|---|---|---|---|---|
| Item no. standard | | | 25.390.3853.0 | 25.392.3853.0 |
| Item no. flange | | | 25.398.6853.0 | 25.398.2853.0 |
| mm² / AWG | (fine-stranded) | | Depending on the female connector used | |
| Current | A | IEC/UL/CSA | | |
| Voltage [1] | V | IEC/UL/CSA | | |

## 7.62 mm pitch

### 2.5 mm² connector

S also

S

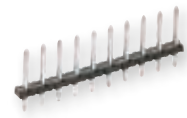
S

F

| | | | 8413 B | 8413 B VR | 8413 B VL | 8413 BFK |
|---|---|---|---|---|---|---|
| Item no. standard | | | 25.380.3753.0 | 25.385.2653.0 | 25.386.2353.0 | 25.880.3653.0 |
| Item no. flange | | | 25.324.6853.0 | | | 25.881.3853.0 |
| mm² / AWG | (fine-stranded) | | 0.14 - 2.5 / 22 - 12 | 0.14 - 2.5 / 22 - 12 | 0.14 - 2.5 / 22 - 12 | 0.14 - 2.5 / 22 - 12 |
| Current | A | IEC/UL/CSA | 12 / 15 / 15 | 12 / 15 / 15 | 12 / 15 / 15 | 12 / 15 / 15 |
| Voltage [1] | V | IEC/UL/CSA | 690 / 300 / 300 | 690 / 300 / 300 | 690 / 300 / 300 | 690 / 300 / 300 |

[1] Rated voltage for overvoltage category III / pollution degree 2

## 3.5 mm pitch

| | Pluggable Terminal Block | Headers [3] | |
|---|---|---|---|
| |  D |  |  |
| | **8543** | **Straight** | **90° angled** |
| Item no. standard | 25.602.5853.0 | Z5.531.4025.0 | Z5.532.3825.0 |
| | | Soldered pin Ø 1 mm | Soldered pin Ø 1 mm |
| mm² / AWG (fine-stranded) | 0.1 - 1.0 / 22 - 16 | Z5.531.0825.0 | Z5.532.0625.0 |
| Current A IEC/UL/CSA | 6 / 10 / 10 | Soldered pin Ø 0.8 mm | Soldered pin Ø 0.8 mm |
| Voltage [1] V IEC/UL/CSA | 250 / 300 / 300 | | |

## 5.0 mm pitch

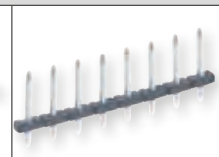
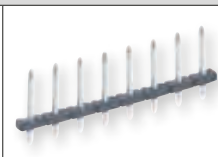
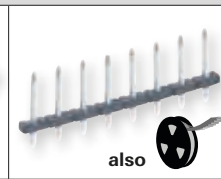
| | Pluggable Terminal Block | | |
|---|---|---|---|
| |  D |  S |  S |
| | **8142** | **8142 Z PR** | **8142 Z PR HC** |
| Item no. standard | 25.602.2853.0 | 25.615.1253.3 | 25.616.1253.3 |
| Item no. flange | | Pull-off force <2.5 N/pole | |
| mm² / AWG (fine-stranded) | 0.14 - 2.5 / 22 - 12 | 0.5 - 2.5 / 20 - 14 | 0.5 - 2.5 / 20 -14 |
| Current A IEC/UL/CSA | 8 / 13 / 15 | 3 / 3 / 3 | 10 / 10 / 10 [2] |
| Voltage [1] V IEC/UL/CSA | 250 / 300 / 300 | 250 / 300 / 300 | 250 / 300 / 300 |

**Connection types:**

**D** = Screw connection with wire protection

**S** = Screw connection with rising cage clamp

| | Pluggable Terminal Block | | | |
|---|---|---|---|---|
| |  S |  S |  S |  NEW |
| | **8142 Z** | **8142 Z RF** | **8142 Z F2** | **8142 ZP** |
| Item no. standard | 25.612.0356.1 | 25.613.0356.1 | 27.602.3653.0 | 25.617.0355.0 |
| Item no. flange | | | | |
| mm² / AWG (fine-stranded) | 0.5 - 2.5 / 20 - 14 | 0.5 - 2.5 / 20 - 14 | 0.14 - 1.5 / 26 - 14 | 0.14 - 2.5 |
| Current A IEC/UL/CSA | 3 / 3 / 3 | 3 / 3 / 3 | 8 / 12 / 12 | UL/CSA applied for |
| Voltage [1] V IEC/UL/CSA | 250 / 300 / 300 | 250 / 300 / 300 | 250 / 300 / 300 | UL/CSA applied for |

| | Headers [3] | | | |
|---|---|---|---|---|
| |  |  |  |  also |
| | **90° angled** | **Straight 14.5 mm** | **Straight 12.0 mm** | **Straight THR 14.5 mm** |
| Item no. standard | Z5.540.3825.0 | Z5.530.3825.0 | Z5.529.0825.0 | Z5.530.0804.0 |
| | Soldered pin Ø 1.3 mm | Soldered pin Ø 1.3 mm | Soldered pin Ø 1.3 mm | Soldered pin Ø 1.3 mm |
| | Z5.540.0825.0 | Z5.542.0825.0 | Z5.530.0825.0 | |
| | Soldered pin Ø 1.0 mm | Soldered pin Ø 1.0 mm | Soldered pin Ø 1.0 mm | |
| | | | | |

[1] Rated voltage for overvoltage category III / pollution degree 2
[2] Only in connection with silver-plated plug connector
[3] Plug connectors are available in different lengths

## 3.5 mm pitch

| | | | Edge connectors | |
|---|---|---|---|---|
| | | |  S |  S |
| | | | DST 85 | DST LF 85 |
| Item no. standard | | | 25.003.0353.0 | 25.005.0353.0 |
| Item no. flange | | | - | - |
| mm² / AWG (fine-stranded) | | | 0.14 - 1.5 / 30 - 14 | 0.14 - 1.5 / 30 - 14 |
| Current | A | IEC/UL/CSA | 6 / 6 / 6 | 6 / 6 / 6 |
| Voltage [1] | V | IEC/UL/CSA | 250 / 300 / 300 | 250 / 300 / 300 |

## 5.0 mm pitch

| | | | Edge connectors | |
|---|---|---|---|---|
| | | |  S also |  S also |
| | | | LPST L 1 | LPST 1 |
| Item no. standard | | | 25.001.0856.0 | 25.010.0856.0 |
| | | | With solder pin | Without solder pin |
| mm² / AWG (fine-stranded) | | | 0.14 - 2.5 / 22 - 14 | 0.14 - 2.5 / 22 - 14 |
| Current | A | IEC/UL/CSA | 5 / 5 / 5 | 5 / 5 / 5 |
| Voltage [1] | V | IEC/UL/CSA | 690 / 300 / 300 | 690 / 300 / 300 |

# Service at Wieland

For detailed technical data about this overview, as well as documents such as drawings and dimension diagrams, visit our eShop at **eshop.wieland-electric.com**

If you have questions about our products, our experts are available by telephone at +49 951 9324-994

## Express sample delivery

**We will be glad to send you samples of the items named in the overview within 48 hours of receipt of the order within Europe.**

**All of these items are delivered in a box.**

RoHS conform

TAPE ON REEL

All products are available in 2- to 12-pole versions.

# RAST 5.

## Standardized products with “pitch connection plug technology” in 5 mm pitch.

The Wieland 8105 series offers a wide variety of codings, colors and printing and sets the quality standard on the market. The available materials fulfill standard requirements as well as those of DIN EN 60335-1.


**Individual printing according to your requests**

**No Flame colors**

| | RAL | Name |
|---|---|---|
| | 1016 | Sulfur yellow |
| | 1021 | Rapeseed yellow |
| | 2012 | Salmon orange |
| | 3014 | Dusky pink |
| | 4009 | Pastel violet |
| | 5012 | Light blue |
| | 6005 | Moss green |
| | 6027 | Light green |
| | 7001 | Silver gray |
| | 7015 | Slate gray |
| | 7021 | Black gray |
| | 8019 | Gray brown |
| | 9010 | Pure white |

## Features:

- Conductor cross-sections from 0.14 mm² to 4 mm²
- For currents up to 10A and voltages up to 400V
- With screw connection
- Can be arranged without loss of poles

## Advantages:

- High number of coding possibilities (see page 38)
- Standard in the heating industry
- Clear assignment thanks to colored insulating housings (23 possible colors)
- Standardized system
- With the use of **No Flame** parts, the requirements of DIN EN 60335-1 are fulfilled without limitations
- Wide variety and many possibilities for customization

## 5.0 mm pitch

### 2.5 mm² socket contact




| | 8105 B | 8105 B VR | 8105 B VL | 8105 B VRA |
|---|---|---|---|---|
| Item No. | 15.000.0357.2 | 15.020.0357.2 | 15.010.0357.2 | 15.040.0357.2 |
| mm² / AWG (fine-stranded) | 0.14 - 2.5 / 26 - 12 | 0.14 - 2.5 / 26 - 12 | 0.14 - 2.5 / 26 - 12 | 0.14 - 2.5 / 26 - 12 |
| Current A IEC/UL/CSA | 10 / 10 / 10 | 10 / 10 / 10 | 10 / 10 / 10 | 10 / 10 / 10 |
| Voltage V IEC/UL/CSA | 400 / 300 / 300 | 400 / 300 / 300 | 400 / 300 / 300 | 400 / 300 / 300 |

### 2.5 mm² socket contact / 2.5 mm² tab contact



| | 8105 B VLA | 8105 FU VR | 8105 FU VL |
|---|---|---|---|
| Item No. | 15.030.0357.2 | 15.421.0357.2 | 15.411.0357.2 |
| mm² / AWG (fine-stranded) | 0.14 - 2.5 / 26 - 12 | 0.14 - 2.5 / 26 - 12 | 0.14 - 2.5 / 26 - 12 |
| Current A IEC/UL/CSA | 10 / 10 / 10 | 10 / 10 / 10 | 10 / 10 / 10 |
| Voltage V IEC/UL/CSA | 400 / 300 / 300 | 400 / 300 / 300 | 400 / 300 / 300 |

### 2.5 mm² tab contact




| | 8105 FU VRA | 8105 FU VLA | 8105 FUE VR | 8105 FUE VL |
|---|---|---|---|---|
| Item No. | 15.441.0357.2 | 15.431.0357.2 | 15.521.0357.1 | 15.511.0357.1 |
| mm² / AWG (fine-stranded) | 0.14 - 2.5 / 26 - 12 | 0.14 - 2.5 / 26 - 12 | 0.14 - 2.5 / 26 - 12 | 0.14 - 2.5 / 26 - 12 |
| Current A IEC/UL/CSA | 10 / 10 / 10 | 10 / 10 / 10 | 10 / 10 / 10 | 10 / 10 / 10 |
| Voltage V IEC/UL/CSA | 400 / 300 / 300 | 400 / 300 / 300 | 400 / 300 / 300 | 400 / 300 / 300 |

RoHS conform

## Important for your order:

The Wieland numbering system: **No Flame parts can be distinguished using the last but one place of the part number, for example**

**15.000.035x.*** *** For colors, see page 24**

- **3** = Standard material
- **7** = No Flame material according to standard DIN EN60335-1
- **3** = 3-pole

## Sample service

**We will be glad to send you sample parts within 48 hours of receipt of order within Europe.**

# Printed circuit board terminals.

Universal connection technology for the highest current and voltage requirements in all applications.

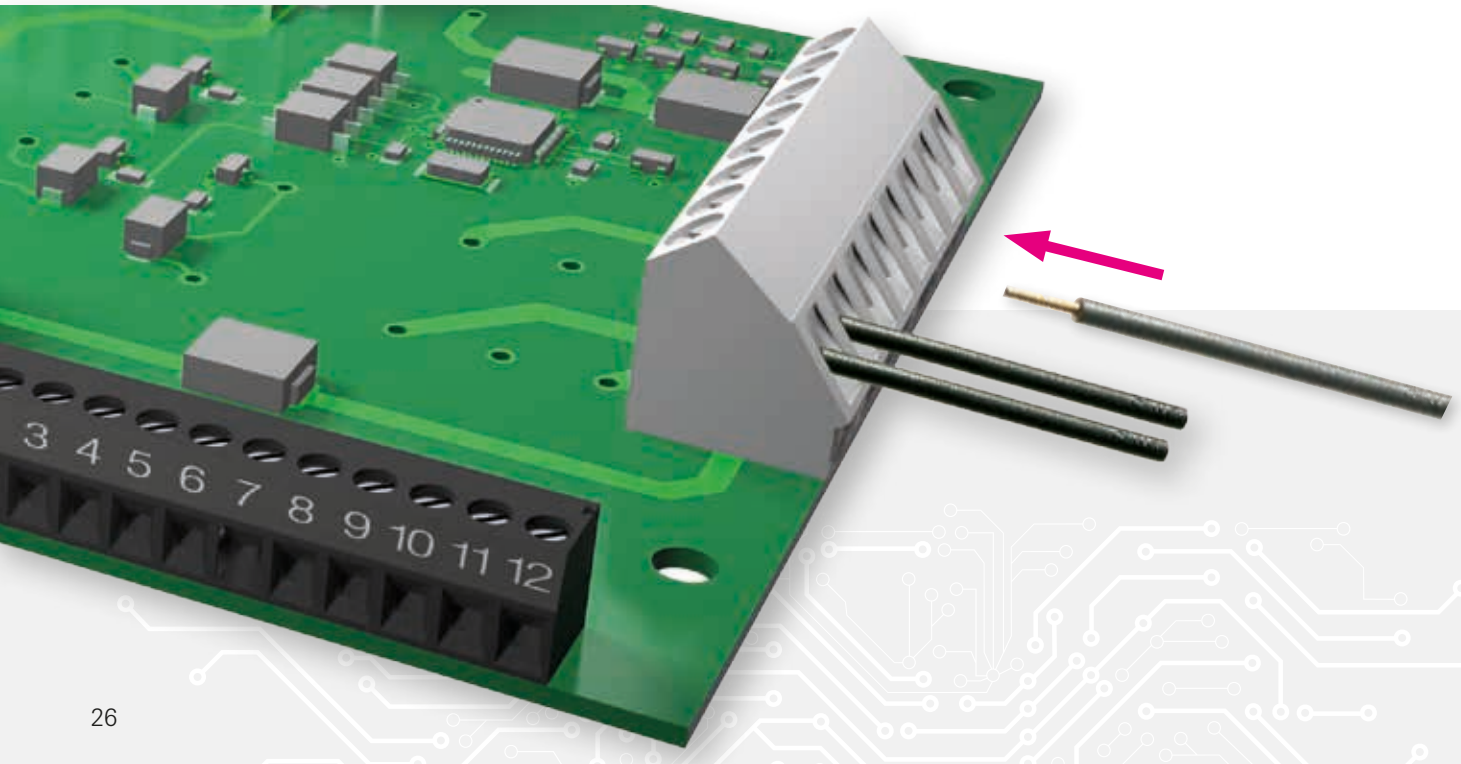
Secure connection, high quality, economical solution! The simple PCB terminal block is available in a wide number of variants and is characterized by high contact reliability.

## Features:

- Cross-sections from **0.14 mm²** to **16 mm²**
- For currents up to **76A** and voltages up to **1000V**
- With screw, tension spring or push-in connection
- Pitches 3.5mm to 10.16mm
- THR products in a wide variety of packaging, such as tape-on-reel, tray, box
- **No Flame** variants available
- Female connectors **can be arranged in a pitch**
- Test point

## Advantages:

- Space-saving since only one component is required for conductor connection
- Low contact resistance
- Universal application
- Secure connection
- Easily available



## Screw connection with rising cage clamp

### 3.5 mm pitch

| | | | 1 mm² | |
|---|---|---|---|---|
| | | |  |  also |
| | | | 8593 | 8593 THR |
| Item No. | | | 25.195.0853.0 | 25.195.0206.0 |
| mm² / AWG (fine-stranded) | | | 0.14 - 1.0 / 30 - 16 | 0.14 - 1.0 / 30 - 16 |
| Current | A | IEC/UL/CSA | 10 / 10 / 10 | 10 / 10 / 10 [1] |
| Voltage [1] | V | IEC/UL/CSA | 250 / 300 / 300 | 250 / 300 / 300 |

### Push-in connection

| | 1.5 mm² |
|---|---|
| |  45° |
| | 8562 N |
| Item No. | 27.010.3653.0 |
| mm² / AWG (fine-stranded) | 0, 5 - 1.5 / 28 - 14 |
| Current | 2 / 2 / 2 |
| Voltage [1] | 250 / 300 / 300 |

### 3.81 mm pitch

| | | | 1 mm² |
|---|---|---|---|
| | | |  |
| | | | 8893 |
| Item No. | | | 25.197.0853.0 |
| mm² / AWG (fine-stranded) | | | 0.14 -1.0 / 30 - 16 |
| Current | A | IEC/UL/CSA | 10 / 10 / 10 |
| Voltage [1] | V | IEC/UL/CSA | 250 / 300 / 300 |

### *End plate

Please order for all items marked with *.

| | AP 8185 TOP N |
|---|---|
| Item No. | 07.300.4753.0 |

### 5.0 mm pitch

| | | | 1.5 mm² | | | | 2.5 mm² | |
|---|---|---|---|---|---|---|---|---|
| | | |  |  |  |  45° |  |  |
| | | | 8192 | 8192 E | 8192 ZW | 8134 | 8195 D/ VB1 | 8195 V / VB1 |
| Item No. | | | 25.191.0553.0 | 25.198.5553.0 | 25.191.6353.0 | 25.501.0853.0 | 25.153.6653.0 | 25.154.6653.0 |
| mm² / AWG (fine-stranded) | | | 0.14 - 1.5 / 30 - 14 | 0.14 - 1.5 / 30 - 14 | 0.14 - 1.5 / 30 - 14 | 0.14 - 1.5 / 30 - 14 | 0.5 - 1.5 / 30 - 14; PE 0.5 - 2.5 / 20 - 12 | 0.5 - 1.5 / 30 - 14; PE 0.5 - 2.5 / 20 - 12 |
| Current | A | IEC/UL/CSA | 10 / 15 / 15 | 10 / 15 / 15 | 10 / 15 / 15 | 10 / 15 / 15 | 10 / 10 / 10 | 10 / 10 / 10 |
| Voltage [1] | V | IEC/UL/CSA | 690 / 300 / 300 | 690 / 300 / 300 | 690 / 300 / 300 | 690 / 300 / 300 | 690 / 300 / 300 | 690 / 300 / 300 |

### Tension spring connection

| | 2.5 mm² | | |
|---|---|---|---|
| |  |  |  45° |
| | 8158 TOP V | 8158 TOP H | 8191 FK |
| Item No. | 25.780.0653.0 | 25.790.0653.0 | 27.007.3253.0 |
| mm² / AWG (fine-stranded) | 0.14 - 2.5 / 22 - 12 | 0.14 - 2.5 / 22 - 12 | 0.08 - 2.5 / 28 - 12 |
| Current | 16 / 20 / 20 | 16 / 20 / 20 | 16 / 15 / 15 |
| Voltage [1] | 690 / 300 / 300 | 690 / 300 / 300 | 250 / 300 / 300 |

### 5.0 mm pitch

| | | | 2.5 mm² | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | |  also |  |  |  |  |  |  |  45° also |  |  |
| | | | 8191 R | 8191 | 8191 E | 8191 D | 8191 ZW | 8185 TOP V | 8185 TOP H | 8135 | 8190 | 8190 E |
| Item No. | | | 25.155.0853.0 | 25.161.0853.0 | 25.178.5353.0 | 25.180.5653.0 | 25.161.6253.0 | 25.741.0653.0 * | 25.741.3453.0 * | 25.521.0653.0 | 25.131.0253.0 | 25.131.3353.0 |
| mm² / AWG (fine-stranded) | | | 0.14 - 2.5 / 22 - 12 | 0.14 - 2.5 / 22 - 12 | 0.14 - 2.5 / 22 - 12 | 0.14 - 2.5 / 22 - 12 | 0.14 - 2.5 / 22 - 12 | 0.5 - 2.5 / 22 - 12 | 0.14 - 2.5 / 22 - 12 | 0.14 - 2.5 / 22 - 12 | 0.5 - 2.5 / 22 - 12 | 0.14 - 2.5 / 22 - 14 |
| Current | A | IEC/UL/CSA | 16 / 20 / 25 | 16 / 20 / 25 | 16 / 20 / 25 | 16 / 20 / 25 | 16 / 20 / 25 | 16 / 20 / 20 | 16 / 20 / 20 | 16 / 20 / 25 | 16 / 15 / 10 | 16 / 15 / 10 |
| Voltage [1] | V | IEC/UL/CSA | 690 / 300 / 300 | 690 / 300 / 300 | 690 / 300 / 300 | 690 / 300 / 300 | 690 / 300 / 300 | 690 / 300 / 300 | 690 / 300 / 300 | 690 / 300 / 300 | 690 / 300 / 300 | 690 / 300 / 300 |

### 5.08 mm pitch

| | | | 1.5 mm² | | | | | 2.5 mm² | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | |  |  |  |  45° |  |  |  |  |
| | | | 8292 | 8292 E | 8292 ZW | 8234 | 8292 H | 8292 EH | 8292 DH | 8291 | 8291 E | 8291 D |
| Item No. | | | 25.193.0853.0 | 25.199.5353.0 | 25.193.6553.0 | 25.503.0353.0 | 27.000.0353.0 | 27.000.2253.0 | 27.000.4253.0 | 25.163.0353.0 | 25.179.5353.0 | 25.181.5353.0 |
| mm² / AWG (fine-stranded) | | | 0.14 - 1.5 / 30 - 14 | 0.14 - 1.5 / 30 - 14 | 0.14 - 1.5 / 30 - 14 | 0.14 - 1.5 / 30 - 14 | 0.5 - 1.5 / 24 - 14 | 0.5 - 1.5 / 24 - 14 | 0.5 - 1.5 / 24 - 14 | 0.14 - 2.5 / 22 - 12 | 0.14 - 2.5 / 22 - 12 | 0.14 - 2.5 / 22 - 12 |
| Current | A | IEC/UL/CSA | 10 / 15 / 15 | 10 / 15 / 15 | 10 / 15 / 15 | 10 / 15 / 15 | 15 / 10 / 10 | 15 / 10 / 10 | 15 / 10 / 10 | 16 / 20 / 25 | 16 / 20 / 25 | 16 / 20 / 25 |
| Voltage [1] | V | IEC/UL/CSA | 690 / 300 / 300 | 690 / 300 / 300 | 690 / 300 / 300 | 690 / 300 / 300 | 250 / 300 / 300 | 250 / 300 / 300 | 250 / 300 / 300 | 690 / 300 / 300 | 690 / 300 / 300 | 690 / 300 / 300 |

[1] Rated voltage for overvoltage category III / pollution degree 2



## Service at Wieland

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## Express sample delivery

**We will be glad to send you samples of the items named in the overview within 48 hours of receipt of the order within Europe.**

**All of these items are delivered in a box.**

RoHS conform

TAPE ON REEL

All products are available in 2- to 16-pole versions, 17- to 24-pole versions on request.





## Screw connection with rising cage clamp

### 5.08 mm pitch

| | | | 2.5 mm² | | | | 45° | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | |  |  |  |  |  also |  | Disconnect terminal  | Fuse terminal  |
| | | | 8291 ZW | 8291 R | 8285 TOP V | 8285 TOP H | 8235 | 8276 | 8276 TKS | 8276 Si-D |
| Item No. | | | 25.163.6353.0 | 25.156.0653.0 | 25.751.0853.0* | 25.751.3353.0* | 25.523.0853.0 | 25.720.1353.0 | 25.720.1453.0 | 25.720.1653.0 |
| mm² / AWG (fine-stranded) | | | 0.14 - 2.5 / 22 - 12 | 0.14 - 2.5 / 22 - 12 | 0.5 - 2.5 / 22 - 12 | 0.5 - 2.5 / 22 - 12 | 0.14 - 2.5 / 30 - 14 | 0.14 - 2.5 / 30 - 14 | 0.14 - 2.5 / 30 - 14 | 0.14 - 2.5 / 30-14 |
| Current | A | IEC/UL/CSA | 16 / 20 / 25 | 16 / 20 / 25 | 16 / 20 / 20 | 16 / 20 / 20 | 16 / 20 / 25 | 26 / 15 / 20 | 15 / 15 / 20 | 6.3 / 6.3 / 6.3 |
| Voltage [1] | V | IEC/UL/CSA | 690 / 300 / 300 | 690 / 300 / 300 | 690 / 300 / 300 | 690 / 300 / 300 | 690 / 300 / 300 | 400 / 300 / 300 | 400 / 300 / 300 | 690 / 300 / 300 |

### 5.08 mm pitch

| | | | 4 mm² |
|---|---|---|---|
| | | |  |
| | | | 7386 TOP H |
| Item No. | | | 27.714.0353.0 |
| mm² / AWG (fine-stranded) | | | 0.5 - 4 / 22 - 10 |
| Current | A | IEC/UL/CSA | 36 / 30 / 30 |
| Voltage [1] | V | IEC/UL/CSA | 320 / 300 / 300 |

### Tension spring connection

| | 2.5 mm² | |
|---|---|---|
| |  |  |
| | 8258 TOP V | 8258 TOP H |
| Item No. | 25.781.0353.0 | 25.791.0653.0 |
| mm² / AWG (fine-stranded) | 0.14 - 2.5 / 22 - 12 | 0.14 - 2.5 / 22 - 12 |
| Current | 16 / 20 / 20 | 16 / 20 / 20 |
| Voltage [1] | 690 / 300 / 300 | 690 / 300 / 300 |

### 7.5 mm pitch

| | | | 2.5 mm² | | | | | 4 mm² | |
|---|---|---|---|---|---|---|---|---|---|
| | | |  |  |  |  |  |  | |
| | | | 8391 | 8391 ZW | 8385 TOP V | 8385 TOP H | 8390 | 8375 | |
| Item No. | | | 25.165.0353.0 | 25.165.6253.0 | 25.761.0653.0* | 25.761.3353.0* | 25.151.0353.0 | 25.700.0253.0 | |
| mm² / AWG (fine-stranded) | | | 0.14 - 2.5 / 22 - 12 | 0.14 - 2.5 / 22 - 12 | 0.14 - 2.5 / 22 - 12 | 0.14 - 2.5 / 22 - 12 | 0.14 - 2.5 / 22 - 12 | 0.14 - 4 / 22 - 10 | |
| Current | A | IEC/UL/CSA | 16 / 20 / 25 | 16 / 20 / 25 | 16 / 20 / 20 | 16 / 20 / 20 | 16 / 15 / 10 | 30 / 30 / 30 | |
| Voltage [1] | V | IEC/UL/CSA | 1000 / 300 / 300 | 1000 / 300 / 300 | 1000 / 300 / 300 | 1000 / 300 / 300 | 1000 / 300 / 300 | 1000 / 300 / 300 | |

### Tension spring connection

| | 2.5 mm² | |
|---|---|---|
| |  |  |
| | 8358 TOP V | 8358 TOP H |
| Item No. | 25.782.0353.0 | 25.792.0653.0 |
| mm² / AWG (fine-stranded) | 0.14 - 2.5 / 22 - 12 | 0.14 - 2.5 / 22 - 12 |
| Current | 16 / 20 / 20 | 16 / 20 / 20 |
| Voltage [1] | 1000 / 300 / 300 | 1000 / 300 / 300 |

### 7.62 mm pitch

| | | | 2.5 mm² | | | | 4 mm² | | 6 mm² |
|---|---|---|---|---|---|---|---|---|---|
| | | |  |  |  |  |  |  |  |
| | | | 8491 | 8491 ZW | 8485 TOP V | 8485 TOP H | 8486 TOP V | 8486 TOP H | 8474 |
| Item No. | | | 25.167.0353.0 | 25.167.6453.0 | 25.771.0653.0* | 25.771.3253.0* | 27.703.0453.0 | 27.713.0253.0 | 27.011.3253.0 |
| mm² / AWG (fine-stranded) | | | 0.14 - 2.5 / 22 - 12 | 0.14 - 2.5 / 22 - 12 | 0.14 - 2.5 / 22 - 12 | 0.14 - 2.5 / 22 - 12 | 0.5 - 4 / 22 - 10 | 0.5 - 4 / 22 - 10 | 0.5 - 6 / 20 - 10 |
| Current | A | IEC/UL/CSA | 16 / 20 / 25 | 16 / 20 / 25 | 16 / 20 / 20 | 16 / 20 / 20 | 36 / 30 / 30 | 36 / 30 / 30 | 16 / 30 / 30 |
| Voltage [1] | V | IEC/UL/CSA | 1000 / 300 / 300 | 1000 / 300 / 300 | 1000 / 300 / 300 | 1000 / 300 / 300 | 500 / 300 / 300 | 500 / 300 / 300 | 250 / 300 / 300 |

### Tension spring connection

| | 2.5 mm² | |
|---|---|---|
| |  |  |
| | 8458 TOP V | 8458 TOP H |
| Item No. | 25.783.0453.0 | 25.793.0453.0 |
| mm² / AWG (fine-stranded) | 0.14 - 2.5 / 22 - 12 | 0.14 - 2.5 / 22 - 12 |
| Current | 16 / 20 / 20 | 16 / 20 / 20 |
| Voltage [1] | 1000 / 300 / 300 | 1000 / 300 / 300 |

### 10.16 mm pitch

| | | | 10 mm² | | |
|---|---|---|---|---|---|
| | | |  |  |  |
| | | | 7572 L2 | 7572 L4 | 7573 L2../W |
| Item No. | | | 27.002.2253.0 | 27.002.0253.0 | 27.002.6153.0 |
| mm² / AWG (fine-stranded) | | | 0.5 - 10 / 22 - 8 | 0.5 - 10 / 22 - 8 | 0.5 - 10 / 26 - 8 |
| Current | A | IEC/UL/CSA | 76 / 65 / 65 | 76 / 65 / 65 | 59 / 40 / 40 |
| Voltage [1] | V | IEC/UL/CSA | 690 / 300 / 300 | 690 / 300 / 300 | 680 / 300 / 300 |

### 5.04 mm pitch

| | | | Push-In |
|---|---|---|---|
| | | |  |
| | | | 8152 TOP V |
| Item No. | | | 27.720.0553.0 |
| mm² / AWG (fine-stranded) | | | 0.14 - 2.5 / 26 - 14 |
| Current | A | IEC/UL/CSA | 16 / 10 / 10 |
| Voltage [1] | V | IEC/UL/CSA | 250 / 300 / 300 |

### *End plate

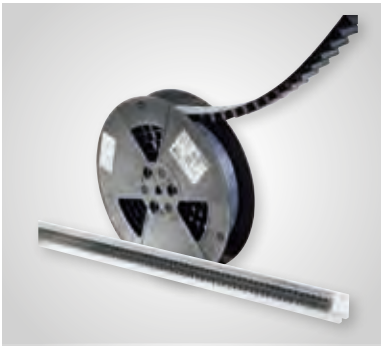
Please order for all items marked with *.



| | AP 8185 TOP N |
|---|---|
| Item No. | 07.300.4753.0 |


**Individual markings**
Printing in tampoprint or ink-jet processes, also multi-colored


**Compact geometry**
Best possible use of the terminal space according to the DIN size



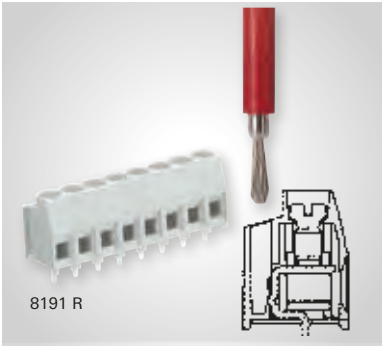
**Process-optimized packaging**
Components in box packaging, tape-on-reel or tray appropriate for your process


**Multi-level variants**
Make space thanks to high packaging and connection density

**Distinguishable by color**
Large number of available color variants


**Space-saving placement**
45° connector outlet allows the placement of clamp on clamp in several rows


**Individual clamp fitting**
Pre-assembled jumpers, empty poles, closed clamping space, your choice




**Integrated test points**
Direct access to voltage-conducting parts with standard test plugs

# FSC Fast signal connection.

The pluggable signal transfer – no mistaken connections.

With the FSC system **you save time and space** while signal cabling **in the control cabinet**. Thanks to the integrated signal distribution with and without electronics, the completely-pluggable system can be adapted individually to customers' needs. **Cable glands** are **a thing of the past**; thanks to the coding, mistaken connections are not possible. **Installation is so easy and safe that no trained personnel is required**.

## Features:

- Mistaken connections impossible
- **30% space savings**
- Installation-ready delivery
- **80% less assembly time**
- Minimal preparatory work. Only **one sheet metal cutout** is required.

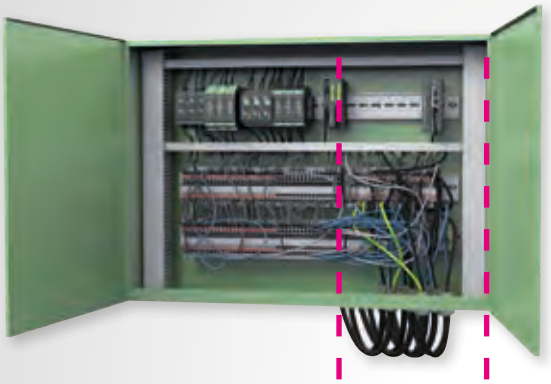
YouTube

**EXPERIENCE IT LIVE!**
**The future of the control cabinet! Transmit signals quickly, safely, flexibly and efficiently – and extremely space saving.**

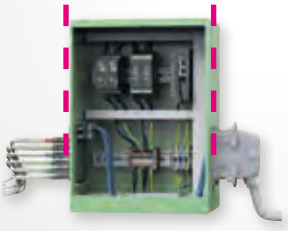
# Control cabinet revolution.

No more inconvenience!

**Before**



**After**



© TROX GmbH

## Compact

- Reduction of control cabinet size by at least **30%**

## Fast

- Tool-free intuitive connection, also color-coded
- Plugging instead of wiring

## Safe

- No specialists required for plugging the external wiring
- Integrated mechanical coding = error-free plugging

## Flexible

- Customer-specific electronic solutions
- Cables individually pre-assembled
- Interchangeable, maintenance-friendly components

## Efficient

- Control cabinet entries, signal distribution and electronics in one product
- Complete solution from just one source
- Time and cost savings thanks to pre-assembled cables
- Optimized logistics and production
- **80%** savings of assembly time

# Value-creation combination.

Secure control cabinet entry & electronics in a single product.

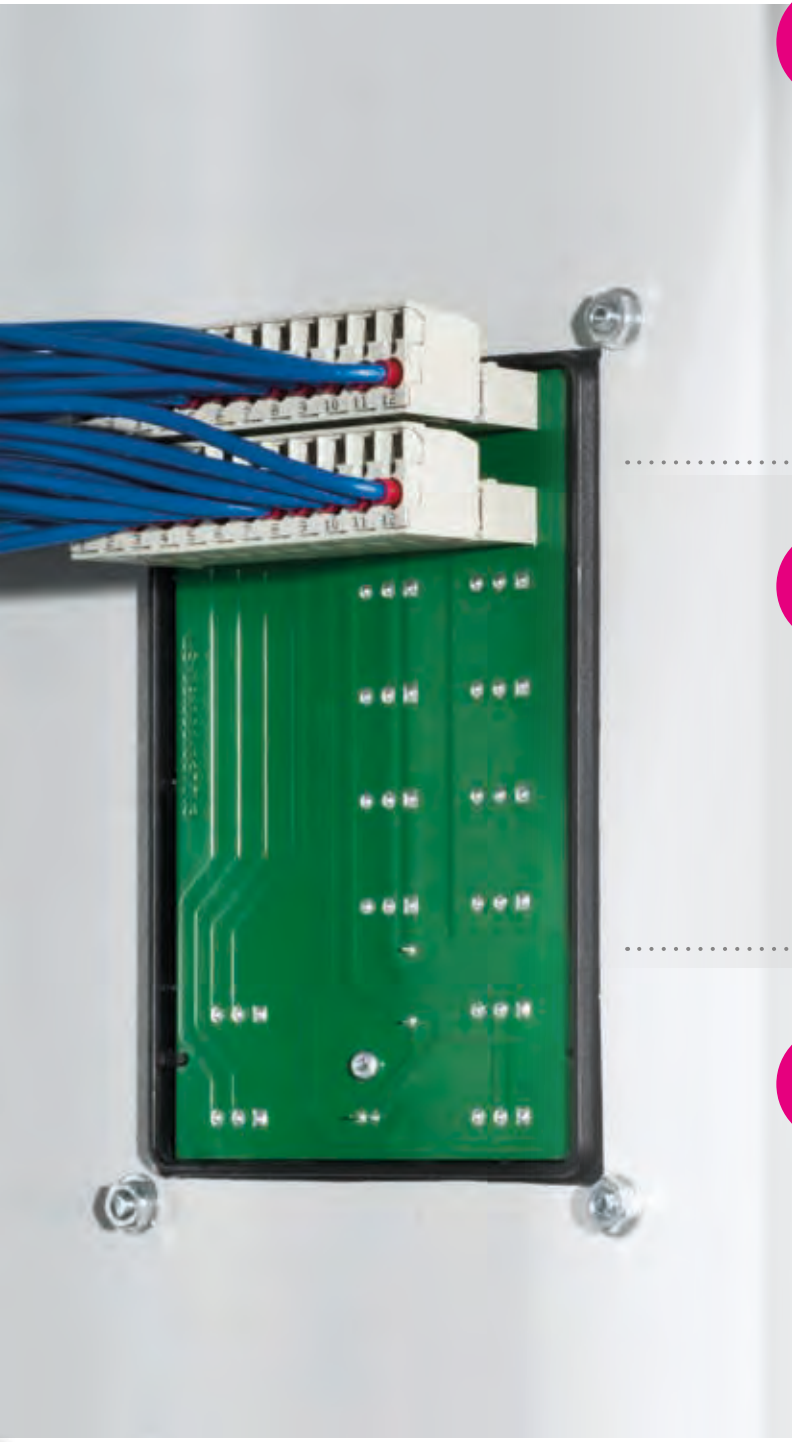

## Patch cable | Y-cable

- **32 coding options**
- Molded cable in the desired length
- 3 to 6-pole
- **Cable shield applied to pole**
- Cable and coding 100% checked
- Cross-sections 0.14 mm² - 1 mm²
- Cable marking with text/color

## Robust housing

- Housing from durable plastic
- **IP 54 through integrated seal**
- Every slot has its own coding
- Printed to customer requirements
- Adapter plates for control cabinet openings upon request

**6-pole Y-cable**



## Board connection area

- **pluggable, flexible**
- **80% faster installation**
- **Pre-assembled with cable**
- Connectors and headers in pitches of 3.5 mm to 5.08 mm (see also page 17)
- Screw, spring or push-in connection technology

## Electronic system

- Circuit board as a pure feed through solution or electronic **special solution** to customer requirements
- Coated to protect against damaging environmental conditions upon request

## Technical data

- Nominal voltage 24V DC, nominal current 3A
- IP54 protection class
- 10/12 slots (more upon request)
- UL and CSA approvals
- Order numbers on request

# The household appliance standard.

DIN EN/IEC 60335-1

This standard standardizes the safety of electrical appliances for household use and commercial purposes whose rated voltage does not exceed 250 V for single-phase appliances and 480 V for other appliances. In chapter 30: "Heat and fire resistance," the topic is discussed in more detail. Affected are parts of non-metallic materials, which keep active parts (e.g. connection elements) in their position. These must be resistant to ignition and the spread of fire. These fire resistance requirements should prevent unattended devices from igniting themselves. On the market, this designation is called "**No Flame**." It applies for manufacturers of electric and electronic household components as well as for appliances in medium-sized operations.

**Examples of affected appliance groups and areas of application:**

## Kitchen appliances

- Dishwashers
- Ranges, stovetops, ovens
- Food processors

## Home & garden

- Hot water heaters and hot water tanks
- Gas, oil and solid fuel appliances with electrical connections

## Other household connections

- Dryers
- Room heaters, such as radiant heaters, electric stoves
- Electrically-operated heat pumps, air conditioners and room air dehumidifiers

## Appliances used outdoors

- Pumps
- Electrical vending machines such as cigarette, beverage, candy, ticket vending machines

## Industry & trade

- Circulation pumps for heating and process water systems

## General data

- Thermal storage heaters
- Air purification and treatment appliances, air humidifiers
- Fans

# No Flame

## facts & data

Wieland Electric GmbH is an experienced, expert partner in the area of pluggable electronic installations and connection technology. Service to the customer and the quality of our products are the top maxim of our activities. **As a company with a strong sense of responsibility, we see it as an obligation to our customers to point out the following:**

Our connection systems and terminal blocks stand for a simple, fast and safe installation. They have been type-tested and certified in accordance with the standards **IEC 61535**, **IEC 61984**, **IEC 60947-7**..., **DIN EN 60998** and **DIN EN 60999** and comply with the current state of standardization. This pertains to the classical pluggable electrical installation just as much as to the use as connection components in machines and other electrical devices.

For the use of connectors in operating equipment subject to **DIN EN 60335-1** ("Safety of household and similar electrical appliances"), Section 30, "Heat and fire resistance", must be referred to for evaluation of fire hazards. Especially for components used in appliances which are operated unattended and conduct a current of >0.2 amperes during normal operation, according to Section 30.2.3 of this standard, there are more stringent conditions within the range of 3 millimeters around the live electrical parts.

Many of the parts in our catalog fulfill these requirements, either through the use of materials of fire class V-0 or V-1, or by verification of needle-flame testing according to **IEC 60695-11-5**. If there are additional, non-metallic materials within a defined cylindrical surrounding of 20 mm diameter and 50 mm height from the live connections, these components must also fulfill the above criteria. We would be happy to assist you with selection of the suitable catalog product.

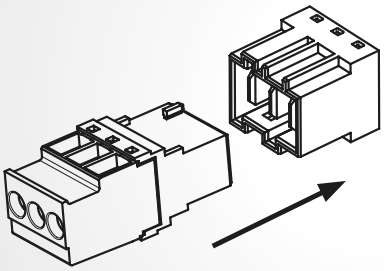
As an alternative, we offer our customers a specific order number group for ordering "**No-Flame**" products. This is not a release from the obligation of the standard, to evaluate the surroundings within a distance of 3 mm to the support of live parts.

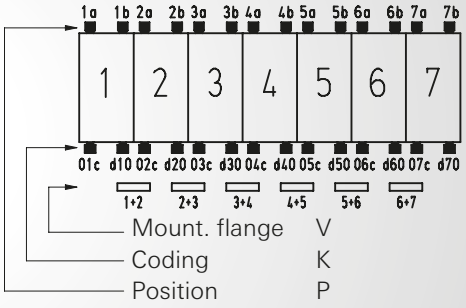
**Example: Printed circuit board connector**

| | |
|---|---|
| Standard part number | 25.320.0453.2 |
| No-Flame part number | 25.320.04**57**.2 |

For this purpose, we employ special plastics which have successfully undergone a glow wire test, either as test plates according to GWIT (Glow Wire Ignition Temperature) or as the component itself regarding GWT (Glow Wire Test). Corresponding VDE verification is available. Please note that not all colors of the standard product are available as "**No-Flame**" material and in individual cases, color deviations may occur.

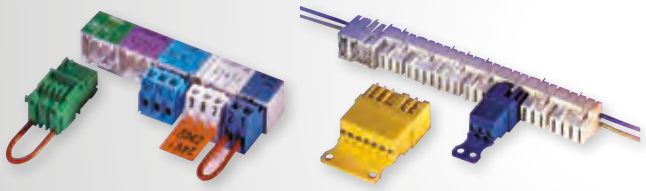
# Matrix: Codings






| Number of poles | | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Coding | | | | | | | |
| C1 | Position | 1b,2a | 1b | 1b | | | |
| | Coding | 01c,d20 | 01c,d20 | 03c,d40 | | | |
| | Mount. flange | 1+2 | 1+2 | 1+2,3+4 | | | |
| C2 | Position | 1a,2b | 1b,3a | 1a,4b | | | |
| | Coding | 01c | 01c | 01c | | | |
| | Mount. flange | 1+2 | 1+2 | 1+2,3+4 | | | |
| C3 | Position | 2a | 1a | 1a,4b | 5b | 1a | |
| | Coding | 01c,d20 | 03c | d40 | d30 | d30,d60 | |
| | Mount. flange | 1+2 | 1+2 | 1+2,3+4 | 1+2 | 1+2,5+6 | |
| C4 | Position | 1a,1b | 1a,1b | 1a,3a | | | |
| | Coding | 01c | d30 | d23c | | | |
| | Mount. flange | 1+2 | 1+2 | 1+2,3+4 | | | |
| C5 | Position | 1a,2b | 1a,3b | 1a,3a | | | 3a,5a |
| | Coding | d20 | 01c | d40 | | | d10,d40,d50 |
| | Mount. flange | 1+2 | 1+2 | 1+2,3+4 | | | 2+3,6+7 |
| C6 | Position | 1a,2b | 1a,3a | 2a,4b | | | |
| | Coding | - | 01c | d20 | | | |
| | Mount. flange | 1+2 | 1+2 | 1+2,3+4 | | | |
| C7 | Position | 1a,2a,2b | 2b | 1b,4b | | | |
| | Coding | d20 | d20 | 01c | | | |
| | Mount. flange | 1+2 | 1+2 | 1+2,3+4 | | | |
| C8 | Position | 2a,2b | 2b,3b | 1b,4b | | | |
| | Coding | d20 | d12c | d40 | | | |
| | Mount. flange | 1+2 | 2+3 | 1+2,3+4 | | | |
| C9 | Position | 1b,2b | 1a,1b | 1b,3b | | | |
| | Coding | d20 | - | 02c,d40 | | | |
| | Mount. flange | 1+2 | 1+2 | 3+4 | | | |
| C10 | Position | 1b,2a | 3a | 2a,4a | | | |
| | Coding | d20 | 02c,d30 | 01c,d40 | | | |
| | Mount. flange | 1+2 | 2+3 | 3+4 | | | |
| C11 | Position | 1a,2a | 1a,3b | 2a,4a | | | |
| | Coding | d20 | 01c,d10,d30 | 01c,d30 | | | |
| | Mount. flange | 1+2 | 2+3 | 2+3 | | | |
| C12 | Position | 1a,1b | 2a,3b | 4a | | | |
| | Coding | d20 | d12c | 02c | | | |
| | Mount. flange | 1+2 | 2+3 | 3+4 | | | |
| C13 | Position | 1a | 1b,3b | 1b,3b | | | |
| | Coding | - | d12c | 02c,d40 | | | |
| | Mount. flange | 1+2 | 2+3 | 2+3 | | | |
| C14 | Position | | 1a,3b | | | | |
| | Coding | | d12c | | | | |
| | Mount. flange | | 2+3 | | | | |
| C15 | Position | | 2a,3b | | | | |
| | Coding | | d10 | | | | |
| | Mount. flange | | 2+3 | | | | |

# Combination possibilities



***) Customer-specific trays, for additional details please contact STOCKO Contact**

www.stocko-contact.com
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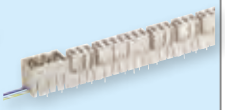
| | MS 9401 to MS 9406, MS 9481 (SMD) *) | MS 9411 to MS 9415 *) | MS 9421 to MS 9424 *) | MF 9431 to MF 9434 *) | MSF 9441 to MSF 9444 *) |
|---|---|---|---|---|---|
| |  Fig. MS 9401 |  Fig. MS 9412 |  Fig. MS 9421 |  Fig. MF 9431 |  Fig. MSF 9441 |
|  8105 B | ✓ | ✓ | ✓ | | ✓ |
|  8105 B VL | ✓ | ✓ | ✓ | | ✓ |
|  8105 B VR | ✓ | ✓ | ✓ | | ✓ |
|  8105 B VL A | ✓ | ✓ | ✓ | | ✓ |
|  8105 B VR A | ✓ | ✓ | ✓ | | ✓ |
| Upon request  8105 FU | | | | ✓ | ✓ |
|  8105 FU VL | | | | ✓ | ✓ |
|  8105 FU VR | | | | ✓ | ✓ |
|  8105 FU VL A | | | | ✓ | ✓ |
|  8105 FU VR A | | | | ✓ | ✓ |
|  8105 FUE VR | | | | ✓ | ✓ |
|  8105 FUE VL | | | | ✓ | ✓ |

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wiecon

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0580.1 A 03/16

**contacts are green.**