



wiecon



Printed circuit board terminals and connectors overview.



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# **CONTACTING** THE PCB IS EASY WITH **WIECON.**

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-COMPLIANT**

These articles comply with the EU Directive (2011/65/EU) on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS), which does not contain such substances above the permitted concentration limits.



### TAPE-ON-REEL

This product is available packed on a 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.

MORE THAN

**50 YEAR** 

EXPERIENCE WITH PCB

### DIRECT PLUGGING TECHNOLOGY

- Wire cross-sections from 0.14 mm<sup>2</sup> to 4 mm<sup>2</sup>
- $\bullet$  For currents up to 6 A and voltages up to 320 V
- Various circuit board thicknesses possible (1.4 1.8 mm)
- Direct contacting of the circuit board
- Clamping yoke connection for easy reconnection
- Modular spacing 5.0 mm

### PCB CONNECTORS

- Wire cross-sections from 0.14 mm<sup>2</sup> to 4 mm<sup>2</sup>
- For currents up to 12 A and voltages up to 1000 V
- With screw, tension spring or push-in connection
- Various connection directions and configurations
- Modular spacing 2.5 mm to 7.62 mm

### PCB TERMINALS

- Wire cross-sections from 0.14 mm<sup>2</sup> to 16 mm<sup>2</sup>
- For currents up to 76 A and voltages up to 1000 V
- 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 3 A and voltages up to 24 V
- Up to 32 coding options
- IP 54









## WIECON USE IN PRACTICE.

### 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.

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### SAFETY + SECURITY

- FSC system
- Housing systems type WEB1001/1002 and wiebox
- Printed circuit board connectors type 8113, 8213, 8513
- Pluggable printed circuit board terminals type 8142
- Printed circuit board terminals 8562 N and 7060 SMD

### HEATING, VENTILATION, AIR CONDITIONING

- RAST 5 system type 8105
- Printed circuit board connectors type 8113, 8213, 8513, 8813
- Printed circuit board terminals type 8191 R
- Pluggable printed circuit board terminals type 8142 Z
- Direct connectors type DST 85, 8105 DST

### FOR THE WIND POWER SECTOR

- Printed circuit board connectors type 8113, 8213, 8513

• Printed circuit board terminals type 8191, 8291

### IN THE LIGHTING SECTOR

- Printed circuit board direct connectors type LST
- Printed circuit board connectors type 8513 (also as flying connection)
- Printed circuit board terminals type 8593, 8562 N, 7060 SMD

## **CONNECTION** TECHNOLOGY

Connect safely and comfortably.

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





Front/Top screw connection











Screw connection with wire protection

Push-in spring terminal with



Tension spring connection



## **TOOL-FREE** THANKS TO **DIRECT** PLUG-IN TECHNOLOGY

### Connect PCB connectors directly to the board without soldering - the new comfortable and space-saving connection possibility.

By using our PCB terminals that can be plugged directly into the PCB, you as a product designer or developer can create added value for your systems. The increasingly compact designs of control units in heating and machine building or in building technology require new solutions.

The direct plug-in technology saves a lot of space, offers safe contacting and, in addition, has a great potential to save time and money, as the pin or male connector can be dispensed with.



### **BENEFITS**

- + Simplified purchasing only 1 component
- + No soldering necessary
- + Different circuit board thicknesses possible (1.4 1.8 mm)
- + Proven clamping yoke connection technology enables multi-wire connections



### APPLICATION AREAS

Our direct plug-in terminals are used in control systems for the following areas:

- Heating
- Buildings
- Machines
- Home appliances

### FEATURES

## TEST AND SEE



Order our sample printed circuit board and see for yourself the many advantages of the new directly pluggable 8105 DST printed circuit board terminal. All the important dimensions and order numbers can be seen straight away and immediately show you that you too can benefit from this product.

Test 1:1 with our free-of-charge sample printed circuit board. Sample board Art. No.: 99.335.0000.0



- No headers required simply plug directly into the circuit board
- Side by side mounting without loss of poles
- Uses plastic material especially for DIN EN 60335-1 No Flame, in different colors
- No entry chamfer necessary on the board, thus the
- circuit plate becomes more cost-effective
- Underplug protection prevents plugging mistakes
- Exchangeable coding inserts enable many coding options



## THR TECHNOLOGY

### The efficient process for printed circuit board fitting.

With "Through Hole-Reflow Soldering," wired components of high-temperatureresistant 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.

### FEATURES

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



### **BENEFITS OF AUTOMATION**

- + Reduction of production costs
- + Reduction of variants THR parts are also suited for wave soldering
- + Sparing of process steps more time for your core business



## **THR** REQUIREMENTS

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.



distribution

Distance for heat and contact zone

Height max. 29 mm Limited by the stroke of the autom. fitting machines (pick & placer)

## THR PACKAGING



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



Magazine Series production especially for unshaped products (e.g. with jumper)



Tape on Reel Series production of 2- to 12-pole parts

## **THR** TEMPERATURES

Recommendations (borrowing from DIN EN 61760-1).



## 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.



Box Samples, zero series at the customer

### 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









### 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.

## **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  $0.14 \text{ mm}^2$  to  $4 \text{ mm}^2$
- For currents up to 12 A and voltages up to 1000 V
- Connection technology in screw, spring and push-in connection
- Pitches 3.5 mm to 7.62 mm
- Codeable
- THR products and No Flame variants available
- Snap-in variants
- Female connectors can be arranged in a pitch

RoHS





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





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

............

Mechanical coding, pluggable

Special coding tab and profiles

prevent plugging mistakes

or molded coded

Free choice of connection technology for individual connection options



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

### **BENEFITS OF THE PLUGGABILITY**

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

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



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



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

## **EXPRESS SAMPLE** DELIVERY

### Our sample service for you!

You are interested in our wiecon PCB terminals portfolio and would like to test the product features live? We would be pleased to send you samples of all the articles mentioned in this brochure without obligation. All articles are delivered in a sample box.

Technical support PCB terminals

Phone: +49 951 9324-994



### Printed circuit board connectors

		THT headers	
<b>7.5 mm</b> PITCH		the the transferred	100
		8313 S/G	8313 S/V
Item no. standard		25.370.3853.0	25.372.375
Item no. flange		25.374.6853.0	25.374.245
mm <sup>2</sup> / AWG (fine-strande	d)		
Current A	IEC/UL/CSA	Depending on the	female conn
Voltage <sup>1)</sup> V	IEC/UL/CSA		
		2.5 mm <sup>2</sup> conne	ector

7.5 mm PITCH



			8313 B
ltem no. sta	andard		25.360.3553.0
Item no. fla	nge		25.324.2253.0
mm <sup>2</sup> / AWG	(fine-stranded)		0.14 - 2.5 / 22 - 12
Current	A	IEC/UL/CSA	12/15/15
Voltage <sup>1)</sup>	V	IEC/UL/CSA	690/300/300

IEC/UL/CSA

IEC/UL/CSA

### **THT** headers

7.62 mm PITCH Item no. standard Item no. flange

mm<sup>2</sup> / AWG (fine-stranded)

Α

V

Current

Voltage 1)

8413 S/...G 8413 S/...W 25.390.3853.0 25.392.3853.0 25.398.6853.0 25.398.2853.0

Depending on the female connector used

	2.5 mm <sup>2</sup> connec	tor
<b>7.62 mm</b> PITCH	also	
	8413 B	8413 B
Itom an atom dayd	25 200 2752 0	25 205 2

ltem no. sta	andard		25.380.3753.0	25.385.265
Item no. fla	nge		25.324.6853.0	
mm² / AWG	(fine-stranded)		0.14 - 2.5 / 22 - 12	0.14 - 2.5 /
Current	A	IEC/UL/CSA	12/15/15	12/15/1
Voltage 1)	V	IEC/UL/CSA	690/300/300	690/300

1) Rated voltage for overvoltage category III / pollution degree 2

### **Connection types**





Screw connection with rising cage clamp



### 3.0 3.0

### ector used



also







No Flame Material

# **2.** Pl

Item no. standard				
Item no. fla	nge			
mm² / AWG	(fine-stranded)			
Current	A	IEC/UL/CSA		
Voltage 1)	V	IEC/UL/CSA		



Item no. fla	nge		25.646.3853.0	
mm² / AWG	(fine-stranded)			
Current	А	IEC/UL/CSA		Dep
Voltago <sup>1)</sup>	V	IEC/UL/CSA		

## 2

PITCH		also	also
		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
mm <sup>2</sup> / AWG (fine-stranded)			
Current A	IEC/UL/CSA	Depending on the fe	male connector used

	THR headers <sup>2)</sup>	0.5 mm <sup>2</sup> connectors
2.5 mm PITCH		
Item no. standard Item no. flange mm² / AWG (fine-stranded) Current A IEC/UL/CSA Voltage <sup>1</sup> V IEC/UL/CSA	7013 S/W THR   7013 S/G THR     27.625.0304.0   27.624.0304.0     Depending on the female connector used	7013 BSP     27.622.3353.0     0.08 - 0.5 / 28 - 20     -/4 / 4     -/150 / 150
		Figure Connection
<b>3.5 mm</b> PITCH	THR headers <sup>2</sup> )	1.5 mm <sup>2</sup> connectors
8513 S/Q8513 S/Q8513 SEGItem no. standard25.646.0853.025.647.0853.027.647.0853.1Item no. flange25.646.3853.025.647.3853.025.647.3853.0mm² / AWG (fine-stranded)25.646.3853.056.47.3853.025.647.3853.0CurrentAIEC/UL/CSADependispont the female construction used	8513 S/G THR   8513 S/W THR   8513 SEGN/G THR   8513 SDGN/G 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     Depending on the female connector used	8513 B     8513 BFK     8513 BS     8513 BSP     8513 SU     8513 SUFK       25.640.3853.0     25.630.3853.0     27.630.3253.0     27.632.3353.0     25.648.3853.0     25.642.3853.0       25.641.3853.0     25.631.3853.0     27.631.3353.0     27.632.3353.0     25.648.3853.0     25.642.3853.0       0.14 - 1.5 / 30 - 16     0.14 - 1.5 / 30 - 16     0.2 - 1.5 / 24 - 16     0.14 - 1.5 / 30 - 16     0.14 - 1.5 / 30 - 16       8/8 / 5     8/8 / 5     -/4 / 4     -/8 / 8     8/8 / 5     8/8 / 5       250 / 300 / 300     250 / 300 / 300     160 / 150 / 150     -/300 / 300     250 / 300 / 300     250 / 300 / 300
		1 C mm <sup>2</sup> compositors
<b>3.81 mm</b> PITCH	TAR headers of	L.S mine connectors
8813 S/W   Item no. standard 25.620.0853.0   1em no. flar 25.620.3453.0   1em no. flar 25.620.3453.0   nm² / AWG (fine-strander)   Current A IEC/UL/CSA   Pepending on the term term term term term term term ter	8813 S/G THR   8813 S/W THR     27.626.0808.0   27.627.0808.0     Upon request   Upon request	8813 B8813 B VR8813 B VL8813 BSP25.620.3853.025.622.3853.025.624.3853.027.642.3353.025.621.3853.025.623.3453.025.625.3853.025.625.3853.00.14 - 1.5 / 30 - 160.14 - 1.5 / 30 - 160.14 - 1.5 / 30 - 168/8 / 58/8 / 58/8 / 5-/8 / 8250 / 300 / 300250 / 300 / 300-/ 300 / 300
S.0 mm FLAME	THR headers <sup>2)</sup>	2.5 mm <sup>2</sup> connectors
Idem no. standard8113 S/G8113 S/GOF8113 S/GOF8113 S/GOF8113 S/GOF8113 SEG/G8113 SEG/G8113 SEG/G8113 SE/G8113 SE/GIdem no. flarge25.330.3853.0025.332.3853.0099.208.9996.0099.268.9996.0025.394.3853.0027.336.0953.0025.334.3353.0025.334.3353.0025.336.3353.00Idem no. flarge25.338.3453.0025.339.3853.0099.208.9996.0099.208.9996.0026.9996.0026.9996.0026.9996.0027.336.0953.0027.334.0353.0025.334.3353.0025.336.3353.00mm² / AWG (fine-stranded)25.338.3453.0025.339.3853.0099.208.9996.0099.208.9996.0026.9996.0026.9996.0026.9996.0026.9996.0027.336.0953.0027.334.0353.0025.334.3353.0025.336.3353.00mm² / AWG (fine-stranded)V100.00100.00100.00100.00100.00100.00100.00Quitage 1VIEC/UL/CSAIEC/UL/CSAIEC/UL/CSAIEC/UL/CSAIEC/UL/CSAIEC/UL/CSAIEC/UL/CSAIEC/UL/CSAIEC/UL/CSA	8113 S/G THR 8113 S/W THR   25.330.3406.0 25.332.3406.0   Depending on the female connector used	8113 B8113 B VR8113 B VL8113 BFK8113 BSP8113 B TOP8113 B K25.320.3853.025.325.3853.025.326.3453.025.820.3853.027.652.3353.025.220.3453.001.060.3853.0 (Iso)25.322.3853.0-25.22.3853.025.25.730.1225.25.730.1225.25.730.120.2-2.5/30.120.2-2.5/30.120.2-2.5/30.120.2-2.5/30.1212/15/1512/15/1512/15/1512/15/1512/12/12-/10/1012/15/1512/15/13400/300/300400/300.00400/300.00-/300/300400/300.00400/300.00
5.08 mm     PITCH	Inv. THT connector THR headers <sup>2</sup> ) Inv. connector   Image: Constant of the second of t	2.5 mm <sup>2</sup> connectors
8213 S/G   8213 S/G   8213 S/GF   8213 S/GF   8213 S/G   8213 SEG/G   8213 SEG/G	8213 BL/G     8213 S/G THR     8213 S/W THR     8213 S/G THR     8213 S/W FTHR	8213 B8213 B VR8213 B VL8213 B FK8213 BSP8213 B TOP8213 B JS25.340.3853.025.345.3853.025.346.3853.025.840.3553.027.662.3353.025.240.3853.027.341.3553.025.323.3353.025.344.3853.025.349.3853.025.245.3853.025.245.3853.002.125.1727.00.2 - 2.5 / 30 - 120.2 - 2.5 / 30 - 120.2 - 2.5 / 30 - 120.14 - 2.5 / 26 - 120.2 - 2.5 / 30 - 120.5 - 2.5 / 26 - 1212 / 15 / 1512 / 15 / 1512 / 15 / 1512 / 12 / 12- / 10 / 1012 / 15 / 1512 / 10 / 15400 / 300 / 300400 / 300 / 300400 / 300 / 300- / 300 / 300400 / 300 / 300400 / 300 / 300





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











### Pluggable Terminal Block + Headers

		Pluggable Terminal Block	Headers <sup>2)</sup>	
<b>3.5 mm</b> PITCH				
		8543	Straight	90° angled
Item no. standard		<b>8543</b> 25.602.5853.0	<b>Straight</b> 25.531.4025.0	<b>90° angled</b> Z5.532.3825.0
Item no. standard		<b>8543</b> 25.602.5853.0	Straight Z5.531.4025.0 Soldered pin Ø 1 mm	<b>90° angled</b> Z5.532.3825.0 Soldered pin Ø 1 mm
Item no. standard mm² / AWG (fine-stranded)		<b>8543</b> 25.602.5853.0 0.1 - 1.0 / 22 - 16	Straight       Z5.531.4025.0       Soldered pin Ø 1 mm       Z5.531.0825.0	<b>90° angled</b> Z5.532.3825.0 Soldered pin Ø 1 mm Z5.532.0625.0
Item no. standard mm² / AWG (fine-stranded) Current A	IEC/UL/CSA	<b>8543</b> 25.602.5853.0 0.1 - 1.0 / 22 - 16 6 / 10 / 10	Straight       Z5.531.4025.0       Soldered pin Ø 1 mm       Z5.531.0825.0       Soldered pin Ø 0.8 mm	<b>90° angled</b> Z5.532.3825.0 Soldered pin Ø 1 mm Z5.532.0625.0 Soldered pin Ø 0.8 mm

## 5.0 mm PITCH

\_\_\_\_\_

Pluggable Terminal Block
8142
25.602.2853.0
Pull-off force <2.5 N/pole
0.14 - 2.5 / 22 - 12

Item no. standard		25.602.2853.0
		Pull-off force <2
mm <sup>2</sup> / AWG (fine-stranded)		0.14 - 2.5 / 22 - 2
Current A	IEC/UL/CSA	8/13/15
Voltage <sup>1)</sup> V	IEC/UL/CSA	250 / 300 / 300

	Pluggable Termi	inal Block	
<b>5.0 mm</b> PITCH			
	8142 Z	8142 Z RF	8142 ZP
Item no. standard	25.612.0356.1	25.613.0356.1	25.617.0355.0

Item no. fla	nge					
mm² / AWG	(fine-stranded)		0.5 - 2.5 / 20 - 14	0.5 - 2.5 / 20 - 14	0.14 - 2.5 / AWG 26-12	0.14 - 2.5 / AWG 26-12
Current	А	IEC/UL/CSA	3/3/3	3/3/3	12/12/12	16 / - / -
Voltage <sup>1)</sup>	V	IEC/UL/CSA	250/300/300	250/300/300	600 / 300 / 300	600/-/-

Headers <sup>2)</sup>









8142 ZP

25.617.2255.0

			TVV.	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			
Item no. standard		Z5.542.0825.0	Z5.530.0825.0	
		Soldered pin Ø 1.0 mm	Soldered pin Ø 1.0 mm	

1) Rated voltage for overvoltage category III / pollution degree 2

2) Plug connectors are available in different lengths

### **Connection types**







### Edge connectors

		Edge connector	S
<b>3.5 mm</b> PITCH		NO FLAME	T
		DST 85	DST LF
Item no. standard		25.003.0353.0	25.005.
mm <sup>2</sup> / AWG (fine-stranded)		0.14 - 1.5 / 30 - 14	0.14 - 1
Current A	IEC/UL/CSA	6/6/6	6/6/6
Voltage <sup>1)</sup> V	IEC/UL/CSA	250/300/300	250/3

### Edge connectors

<b>5.0 n</b> PITCI	nm H		also
			LPST 1
ltem no. sta	andard		25.010.0856.0
			Without solder pin
mm² / AWG	(fine-stranded)		0.14 - 2.5 / 22 - 14
Current	A	IEC/UL/CSA	5/5/5
Voltage <sup>1)</sup>	V	IEC/UL/CSA	690 / 300 / 300







5.0353.0

1.5 / 30 - 14 6 300/300



## **RAST 5** TERMINALS

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.



### **BENEFITS**

- + High number of coding possibilities (see page 36)
- + Standard in the heating industry
- + Clear assignment thanks to colored insulating housings
- + With the use of No Flame parts, the requirements of DIN EN 60335-1 are fulfilled without limitations
- + Wide variety and many possibilities for customizationt

### **FEATURES**

- Conductor cross-sections from 0.14 mm<sup>2</sup> to 4 mm<sup>2</sup>
- For currents up to 10 A and voltages up to 400 V
- With screw connection
- Can be arranged without

### 5.0 mm PITCH

- Tul	
NO FLAME	
PLAME	

			8105 DST	810
Item No.			99.343.0000.0	15.0
mm² / AWG	(fine-stranded)		0.14 - 2.5 / 26 - 12	0.14
Current	А	IEC/UL/CSA	6/6/6	10/
Voltage <sup>1)</sup>	V	IEC/UL/CSA	400/300/300	400

5.0 mm PITCH



			8105 B VRA	8105
Item No.			15.040.0357.2	15.03
mm² / AWG	i (fine-stranded	1)	0.14 - 2.5 / 26 - 12	0.14 -
Current	А	IEC/UL/CSA	10/10/10	10/1
Voltage 1)	V	IEC/UL/CSA	400/300/300	400/





### Important for your order:

last but one place of the part number, for example 15.000.035x.\*



## The Wieland numbering system: No Flame parts can be distinguished using the

→ 7 = No Flame material according to standard DIN EN60335-1

LIN,

## 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 mm<sup>2</sup> to 16 mm<sup>2</sup>
- For currents up to 12 A and voltages up to 1000 V
- Connection technology in screw, spring and push-in connection
- Pitches 2.5 mm 10.16 mm
- THR products and No Flame variants available
- Female connectors can be arranged in a pitch
- Integrated test point

## **OVERVIEW BENEFITS**



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



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





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

Distinguishable by color Large number of available

color variants



Individual clamp fitting

your choice

Pre-assembled jumpers, empty

poles, closed clamping space,



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



### **BENEFITS**

- + Secure connection and low contact resistance
- + Universal application and easily available
- + Space-saving since only one component is required for conductor connection







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



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

## 💎 wieland



**2.5 mm**<sup>2</sup>



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<b>5.0 mm</b> PITCH		NO FLAME auch	1111111			1	also	45°	T,
		8191 R	8191	8191 E	8191 D	8191 ZW	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	25.521.0653.0	25.131.0253.0	25.131.3353.0
mm <sup>2</sup> / 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 - 2.5 / 22 - 12	0.5 - 2.5 / 22 - 12	0.14 - 2.5 / 22 -
Current A	IEC/UL/CSA	16 / 20 / 25	16/20/25	16 / 20 / 25	16/20/25	16/20/25	16 / 20 / 25	16 / 15 / 10	16 / 15 / 10
Voltage <sup>1)</sup> 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

**1.5 mm**<sup>2</sup> 2.5 mm<sup>2</sup> 5.08 mm ..... 15 PITCH 1 5 5 8292 EH 8292 DH 8291 8292 8292 E 8292 ZW 8234 8292 H 25.193.0853.0 25.503.0353.0 27.000.2253.0 25.163.0353.0 Item No. 25.199.5353.0 25.193.6553.0 27.000.0353.0 27.000.4253.0 mm<sup>2</sup> / 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 -16/20/25 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 Voltage <sup>1)</sup> 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

	2.5 mm <sup>2</sup>		
<b>5.08 mm</b> PITCH	22000328	000	45° also
	8291 ZW	8291 R	8235
Item No.	25.163.6353.0	25.156.0653.0	25.523.0853.0
mm <sup>2</sup> / AWG (fine-stranded)	0.14 - 2.5 / 22 - 12	0.14 - 2.5 / 22 - 12	0.14 - 2.5 / 30 - 14
Current A IEC/UL/CSA	16 / 20 / 25	16 / 20 / 25	16 / 20 / 25
Voltage <sup>1)</sup> V IEC/UL/CSA	690 / 300 / 300	690 / 300 / 300	690 / 300 / 300

	4 mm <sup>2</sup>		
<b>5.08 mm</b> PITCH			
	7386 TOP H		
tem No.	27.714.0353.0		
mm²/AWG (fine-stranded)	0.5 - 4 / 22 - 10		
Current A IEC/U	UL/CSA 36/30/30		
/oltage <sup>1)</sup> V IEC/U	UL/CSA 320/300/300		
	<b>2.5 mm<sup>2</sup></b>	4 mm	1 <sup>2</sup>
<b>7.5 mm</b> PITCH	111		

		1 3 1	0.	i i	
		8391	8391 ZW	8390	8375
Item No.		25.165.0353.0	25.165.6253.0	25.151.0353.0	25.700.0253.0
mm <sup>2</sup> / AWG (fine-stranded)		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 / 15 / 10	30/30/30
Voltage <sup>1)</sup> V	IEC/UL/CSA	1000 / 300 / 300	1000 / 300 / 300	1000 / 300 / 300	1000/300/300

690/300/300

Screw connection with rising cage clamp						Tension spring c	onnection	
	2.5 mm <sup>2</sup>						2.5 mm <sup>2</sup>	
<b>5.08 mm</b> PITCH	23000304		45° also					
Item No. mm <sup>2</sup> /AWG (fine-stranded) Current A IEC/UL/CSA Voltage <sup>1)</sup> V IEC/UL/CSA	8291 ZW       25.163.6353.0       0.14 - 2.5 / 22 - 12       16 / 20 / 25       690 / 300 / 300	8291 R       25.156.0653.0       0.14 - 2.5 / 22 - 12       16 / 20 / 25       690 / 300 / 300	8235       25.523.0853.0       0.14 - 2.5 / 30 - 14       16 / 20 / 25       690 / 300 / 300	_			<b>8258 TOP V</b> 25.781.0353.0 0.14 - 2.5 / 22 - 12 16 / 20 / 20 690 / 300 / 300	8258 TOP H       25.791.0653.0       0.14 - 2.5 / 22 - 12       16 / 20 / 20       690 / 300 / 300
	4 mm <sup>2</sup>						2.5 mm <sup>2</sup>	
<b>5.08 mm</b> PITCH							45	° 45°
Item No. mm <sup>2</sup> /AWG (fine-stranded) Current A IEC/UL/CSA Voltage <sup>1)</sup> V IEC/UL/CSA	7386 TOP H       27.714.0353.0       0.5 - 4 / 22 - 10       36 / 30 / 30       320 / 300 / 300						<b>8291 EFK</b> 27.008.3453.0 0.08 - 2.5 / 28 - 12 12 / 10 / 10 250 / 300 / 300	8291 DFK       27.009.3253.0       0.08 - 2.5 / 28 - 12       12 / 10 / 10       250 / 300 / 300
	2.5 mm <sup>2</sup>			<b>4 mm</b> <sup>2</sup>			2.5 mm <sup>2</sup>	
<b>7.5 mm</b> PITCH	111	00						
Item No. mm <sup>2</sup> /AWG (fine-stranded) Current A IEC/UL/CSA Voltage <sup>1)</sup> V IEC/UL/CSA	<b>8391</b> 25.165.0353.0 0.14 - 2.5 / 22 - 12 16 / 20 / 25 1000 / 300 / 300	8391 ZW       25.165.6253.0       0.14 - 2.5 / 22 - 12       16 / 20 / 25       1000 / 300 / 300	8390     25.151.0353.0     0.14 - 2.5 / 22 - 12     16 / 15 / 10     1000 / 300 / 300	8375       25.700.0253.0       0.14 - 4 / 22 - 10       30 / 30 / 30       1000 / 300 / 300			<b>8358 TOP V</b> 25.782.0353.0 0.14 - 2.5 / 22 - 12 16 / 20 / 20 1000 / 300 / 300	8358 TOP H       25.792.0453.0       0.14 - 2.5 / 22 - 12       16 / 20 / 20       1000 / 300 / 300
	2.5 mm <sup>2</sup>		4 mm <sup>2</sup>		6 mm <sup>2</sup>		<b>2.5 mm<sup>2</sup></b>	
<b>7.62 mm</b> PITCH		9666			EFF.			
Item No. mm²/AWG (fine-stranded) Current A IEC/UL/CSA Voltage <sup>1)</sup> V IEC/UL/CSA	8491     25.167.0353.0     0.14 - 2.5 / 22 - 12     16 / 20 / 25     1000 / 300 / 300	8491 ZW       25.167.6453.0       0.14 - 2.5 / 22 - 12       16 / 20 / 25       1000 / 300 / 300	8486 TOP V     27.703.0453.0     0.5 - 4 / 22 - 10     36 / 30 / 30     500 / 300 / 300	8486 TOP H       27.713.0253.0       0.5 - 4 / 22 - 10       36 / 30 / 30       500 / 300 / 300	8474     27.011.3253.0     0.5 - 6 / 20 - 10     30 / 30 / 30     250 / 300 / 300		<b>8458 TOP V</b> 25.783.0453.0 0.14 - 2.5 / 22 - 12 16 / 20 / 20 1000 / 300 / 300	8458 TOP H       25.793.0453.0       0.14 - 2.5 / 22 - 12       16 / 20 / 20       1000 / 300 / 300

		10 mm <sup>2</sup>		
<b>10.16 mm</b> PITCH				
		7572 L2	7572 L4	7573 L2/W
Item No.		27.002.2253.0	27.002.0253.0	27.002.6153.0
mm <sup>2</sup> / AWG (fine-stranded	1)	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

IEC/UL/CSA 690 / 300 / 300 690 / 300 / 300

Voltage<sup>1)</sup> V



11		
	8291 E	8291 D
	25.179.5353.0	25.181.5353.0

)	25.179.5353.0	25.181.5353.0
- 12	0.14 - 2.5 / 22 - 12	0.14 - 2.5 / 22 - 12
	16 / 20 / 25	16 / 20 / 25
00	690/300/300	690/300/300





## **WIECON** FSC SUPER-FAST **SIGNAL** DISTRIBUTION

With the FSC system you save time and space with signal cabling in the distribution boxes. Thanks to the integrated signal distribution with and without electronics, the completely pluggable system can be adapted individually to customer needs. Cable screw fittings are a thing of the past. Coding prevents any mismating. Installation is so easy and safe that no trained personnel are required.

### FEATURES

- + Mistaken connections are impossible
- + 30 % space savings
- + Installation-ready delivery
- + 80 % less assembly time
- + Minimal preparatory work only a sheet metal cut-out is required



## + Plug contour can be adopted in your plastic housing

### NO MORE INCONVENIENCE

- Reduction in distribution box size
- Plugging instead of wiring
- No specialists required for plugging the external wiring
- Replaceable, maintenancefriendly components
- Distribution box entry, signal distribution & electronics in one product

### PATCH CABLE | Y-CABLE

- 32 coding options
- Extruded cable to the desired length
- 3 to 6-pole
- Cable shield applied to pole
- Cable and coding 100 % checked
- Cross sections 0.14 mm<sup>2</sup> 1 mm<sup>2</sup>
- Cable marking with text/color

### **TECHNICAL DATA**

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









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## DOMESTIC APPLIANCES STANDARD

For the safety of electrical products for domestic use and commercial purposes.

### **DIN EN/IEC 60335-1**

This standard standardizes the safety of electrical appliances for household use and commercial purposes, the rated voltage of which 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.



### **KITCHEN APPLIANCES**

- Dishwashers
- Ranges, stovetops, ovens
- Food processors

### **HOME & GARDEN**

- Hot water boilers and hot water cylinders
- 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
- Electric product dispensing machines such as beverage, food and ticket vending machines
- ► Industry & trade
- Circulation pumps for heating and process water systems

### GENERAL

- Thermal storage heaters
- ► Air cleaning or air handling products, humidifiers
- Fans



## DATA + FACTS ON **NO** FLAME

We are an experienced, expert partner for pluggable electronic installations and connection technology. Service to the customer and the quality of our products are core elements of our organizational philosophy. 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 ensure **simple**, fast and safe installation. They are type-tested and certified according to the standards

IEC 61535, IEC 61984 IEC 60947-7... **DIN EN 60998 DIN EN 60999** 

and according to the current status of the standards. 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 numbergroup 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.

### AN EXAMPLE OF A PRINTED CIRCUIT BOARD PLUG CONNECTOR

Standard part number 25.320.045**3**.2 No Flame part number

25.320.0457.2

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



### **COMBINATION POSSIBILITIES**





NS 9421 to NS 9424 *)	MF 9431 to MF 9434 *)	MSF 9441 to MSF 9444 *)
ig. MS 9421	Fig. MF 9431	Fig. MSF 9441
NAME OF CONTROL OF	NH HIMAN	
бтоско		боро
бтоско		боро
бтоско		STOCKO
боско		STOCKO
боско		STOCKO
	бтоско	STOCKO
	бтоско	STOCKO
	бтоско	STOCKO
	STOCKO	STOCKO
	STOCKO	STOCKO
	STOCKO	STOCKO

## **SMART** SERVICING + SERVICES

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.



### Do you already know our new Push-In series?

If not you are welcome to order our sample sets. With this portfolio expansion, you now have the free choice of connection technology!

Sample set consisting of female parts with 2, 3, 4, 5, 6, 8 and 10 poles as well as pin header 10 poles angled and straight.

		SET 1	SET 2	SET 3	SET 4	SET 5
	Pitch	2,5 mm	3,5 mm	3,81 mm	5,0 mm	5,08 mm
	Туре	7013	8513	8813	8113	8213
	Item No.	99.348.0000.0	99.351.0000.0	99.352.0000.0	99.349.0000.0	99.350.0000.0

### More sample sets:

Pluggable PCB terminal blocks 8142 ZP, the smallest pluggable PCB terminal block with up to 16 A current load capacity and 2.5 mm<sup>2</sup> termination Part No. 99.333.0000.0

With our sample set of edge connectors you save soldering and disposition of the pin header and still have all the advantages of a connector. Part No. 99.335.0000.0



### **KNOW-HOW + COMPETENCE**

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

### CUSTOMIZED SOLUTIONS

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



### INFO TO GO (ऺॖ≣)

All brochures from Wieland Electric are available for download on our website.

### https://www.wieland-electric.com/en/support/downloads

Interesting for you

### EMPTY HOUSINGS

https://wie.li/webpcbcompen Printed circuit board components

Housing systems for Industry and buildings Bestell-Nr. 0850.1





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in motion



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https://eshop.wieland-electric.com



### WIECON 8142 ZP Compact rising cage terminals for machines + plants



Part No. 0552.1

WIECON RAST 5 Printed circuit board connectors for applications in HVAC Part No. 0570.1





**Technical consultation** Industry Solutions

E-mail: industry@wieland-electric.com Worldwide: https://wie.li/contactinternational



Scan QR code view products in the E-SHOP.





### HEADQUARTERS

Wieland Electric GmbH Brennerstraße 10 – 14 96052 Bamberg · Germany

Phone +49 951 9324-0 Fax +49 951 9324-198 info@wieland-electric.com

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Represented in over 70 countries worldwide:

### www.wieland-electric.com