Connection Technology for Printed Circuit Boards Pitch 5,08 mm

WECO - making contact

Catalogue 3

Electronic

Content

940-T

121-C-111

121-M-251

Symbols on data sheets

These symbols can be found on our data sheets on the right side of the product image.

RoHS COMPLIANT	These articles comply with the RoHS regulations.
pottable	Through its geometry, this product is specially suitable for potting.
„no flame“ after glow-wire test according to household appliance standard DIN EN/IEC 60335-1	The materials used for enclosures are VDE-tested and approved according to the glow-wire tests specified in DIN EN/IEC 60335-1. It is conform with the requirements of the increased household appliance standard.

Overview

Connectors for printed circuit boards

WECO PCB connectors always offer a good solution for almost any connection problem by its big variety of types. The screw connections are available in socket terminal style, in elevator clamping style or as head contact terminals. The plug connectors are especially designed for the connection of components or peripheral devices. Tab connectors and screwless types complete the product program.

Plug-In connector systems

The series of conecta are plug-in connector systems consisting of plug connectors with screw and their corresponding pin strips.
Due to four different pitch sizes, lateral flange executions, tier versions and different plug directions, this product serie suit almost every application on the PCB. All connectors offer coding possibilities to avoid incorrect plugging.

SMD & THR

“SMarTconn” covers terminals and plug connectors for surface mount and reflow soldering technique. Apart from the proven Through-Hole-Technology (THR) we focus on genuine SMD - Surface Mount Devices – in this product serie. With their reliable adhesive forces and their good reflow soldering capabilities, we offer products, which are a worthy replacement for the conventional soldering technique. All products of this series are packed in tape-on-reel or tube magazines for the automatic assembling with a pick & place machine.

Terminal strips

This group contains socket terminals, plug-in connectors, screwless types and additionally the combination of screw and solder tag for the wire-to-wire connection. All types are available for different cross sections, with and without wire protectors. The used Polyamide plastic material pass the ball pressure test with 125°C according to VDE 0470, which is demanded in many IEC and VDE regulations for insulants.

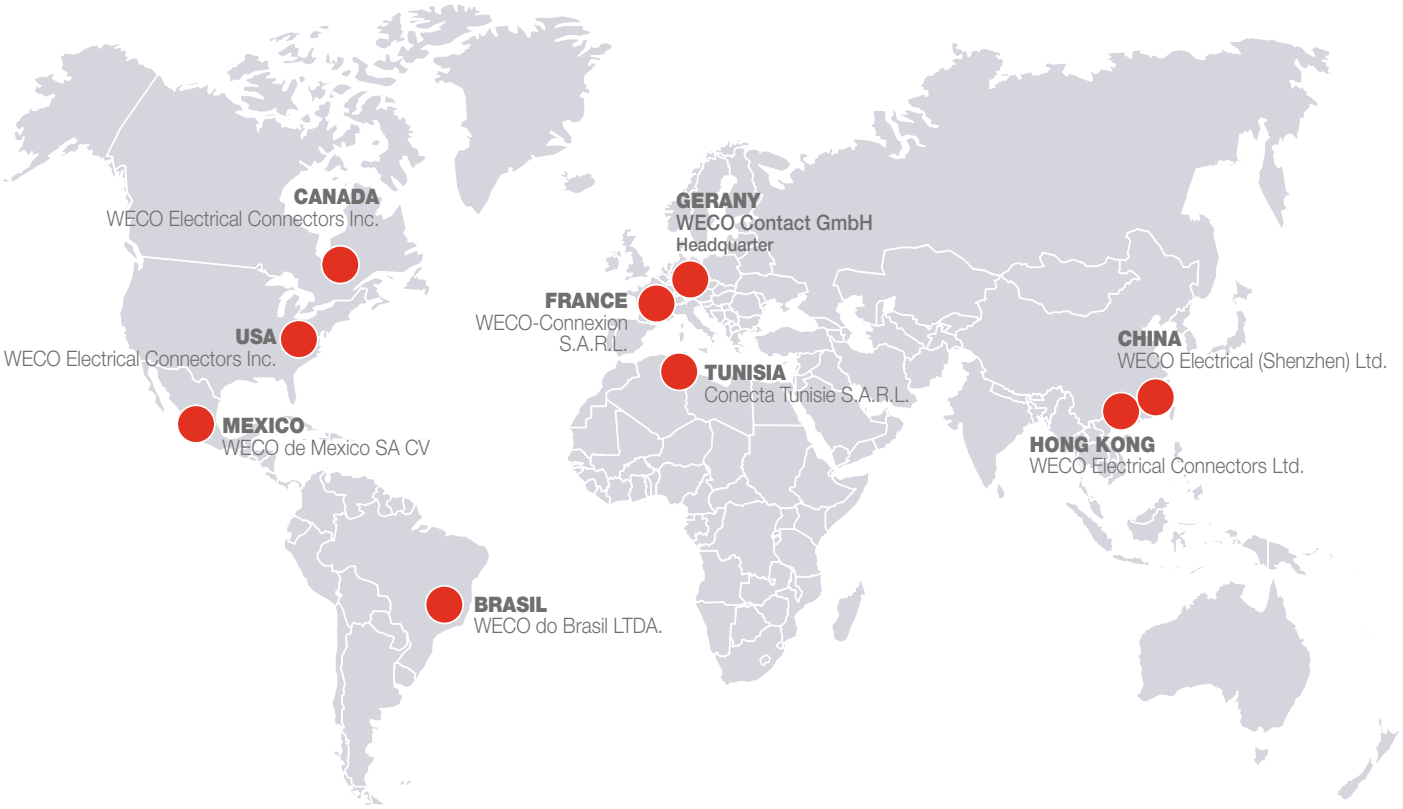
Tab connectors

These connectors are equipped with receptacles in different sizes and styles. Mixed arrangements per terminal block as well as per pole (Multi-Point Tab Connectors) are possible. Combinations of tab / solder connectors, flat plug couplers and space saving tier versions increase the density of connections. The tab connectors offer a wide spectrum of possible combinations, whereby many connection problems can be solved.

Ceramic terminal blocks

This group covers mantle terminals, ceramic terminal strips and terminals for explosion and firedamp-hazard areas. Various sizes and designs permit them to be used for wire cross sections up to 120 mm² and including applications in furnace construction and ship building, for engines and intrinsically safe electrical equipment. The terminal blocks with ceramic insulator can be used at increased temperatures.

The WECO Group



We, WECO Contact GmbH, are a German manufacturer of high reputation in the field of electronics and electrical engineering. Our headquarter is located in Hanau and has own assembly and sales companies in USA, Canada, Brazil, France, China, Hong Kong and Mexico. With over 450 employees and a worldwide distribution network in 56 countries, we speak the language of our customers.

Our extensive product range includes nearly 17,000 different articles.

We are well known for innovation which is particularly evident in the patented SMD series for the genuine surface mounting technology. Hereby, the user experiences real cost savings in the manufacturing process, especially if the terminal is the last component of the customer to be soldered on the board.

Another strength are the customer-specific developments and a fast and flexible project implementation with which we respond to the increasing engineering demands of the middle class customers.

The entire WECO Group is a reliable partner for our customers, and the customers' satisfaction is one of our main goals to achieve.

www.wecogroup.com

Household Appliance Standard DIN EN/IEC 60335-1

What is the household appliance standard all about?

The Household Appliance Standard DIN EN/IEC 60335-1:2007-02 standardizes the safety features of electrical appliances for household use and similar purposes.

The standard requires testing of glow wire resistance for non-metallic materials used in appliances operated with >0,2 A and applies for non-metallic materials which hold active components in position.

These fire protection requirements shall prevent self-ignition of unattended appliances thus significantly increasing fire safety.

For which appliances does this standard apply?

The standard is applicable for electric and electronic components in unattended household appliances with rated currents of >0,2 A, such as

terminals and switches, e.g. in:

- Dishwashers, washing machines, refrigerators
- Kitchen stoves, microwaves
- Small household appliances, such as mixers, coffee machines

Unattended equipment used in small and medium-sized enterprises is also affected, namely:

- Pump components
- Illuminant components
- Industrial and commercial cleaning equipment
- Hair salon equipment etc.

WECO products are compliant with the glow-wire tests according to the household appliance standard!

For the white goods market segment, WECO Contact GmbH offers an extensive range of products meeting the requirements of the Household Appliance Standard DIN EN/IEC 60335-1. Even before the transition period expired in July 2007, many WECO products had already been compliant with the tightened household appliance standard, providing WECO Contact with an enormous edge over competitors, particularly over those in Asia.

The materials used for enclosures are VDE-tested and approved according to the glow-wire tests specified in DIN EN/IEC 60335-1. This applies for all standard WECO colours!

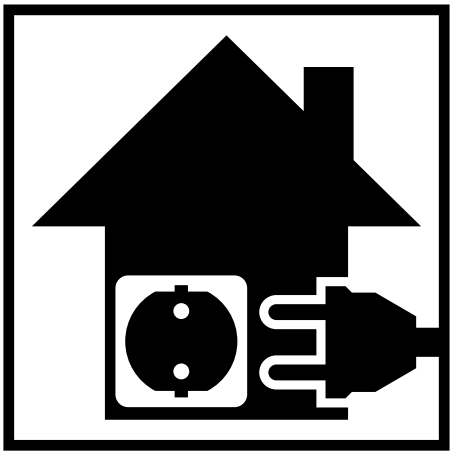
PRODUCTS:

- All products of the connections for printed circuit boards with the exception of large-pole articles of the series 95.., 96.. and 97.. as well as SMD and THR products.
- Series 326 and 327
- Other products: Producibility must verified for each product

We designate products compliant with this tightened household appliance standard, if a specific variant compatible to the household appliance standard is available:

- PART NUMBER:
  The existing 8-digit article number will be continued and supplemented by „EN6“.

- DESIGNATION:
  The existing designation will be continued. A „6“ will be placed before „GP“ resulting in „6GP“.



Are you affected?

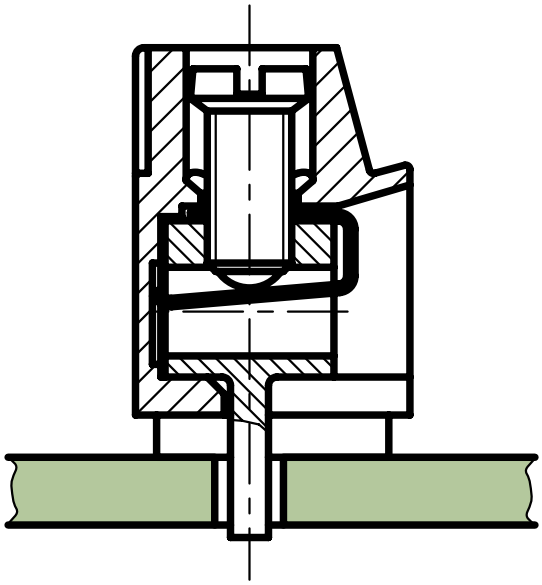
Even today, long after the tightened Household Appliance Standard DIN EN/IEC 60335-1 entered into force, many questions still arise and need clarification.

Even equipment manufacturers affected by this household appliance standard often are unaware of the standard's requirements and only find out that they ARE AFFECTED, when they submit their products at VDE and are denied approval because products do not meet the currently valid standards.

We at WECO Contact take technical support and service for our customers seriously. Therefore, we have compiled on our website a list of all manufacturer products affected by the household appliance standard. At a glance, our customers can now gather information on whether their appliances are affected or not.

The list is also a valuable tool for both sales staff and field reps, helping them to resolve possible unclear issues in project meetings, and enabling them to optimally support the customer.

PCB connectors



Thanks to their versatile design, WECO Contact PCB connectors offers a solution for every connection application. Here, you can find all 5.08 mm pitch connector systems available for printed circuits.

Depending on the respective series, PCB connectors are available with the standard pole numbers 2 to 12 or 2 to 24 poles. "..-T"-versions are only available with 2 and 3 poles. With their lateral latching elements they can be locked to terminal strips of any pole number. That way, maintaining accuracy and correctness of the pitch is always guaranteed.

The screw terminals are built on the principle of the socket terminal, either as a lift system or as a head contact terminal.

Damage to flexible conductors can be prevented through the use of our products with wire protection (indicated by the name "-DS" in the product) reliably prevented. An enlarged clamping space with nearly square shape offered in the versions of our product of the series 968. In the version with wire protection also fine-stranded conductors up to 4 mm² can be connected.

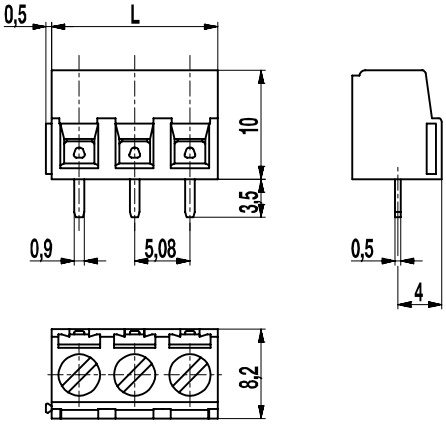
All versions are equipped with captive screws which also allow over-head assembly.

As standard, our terminals are delivered unmarked. Upon request, they can also be printed, e.g. with consecutive numbering or individual marking according to customer requirement.

PCB connector

141-A-111

Screw connection, interlocking



The PCB connector 141-A-111 with lift system is designed as one-tier basic version with a pitch of 5,08 mm and available in 2 and 3 pole design.

Lateral latching elements on the housing allow to latch the PCB connector to longer terminal rows without pole loss. The wire entrance is parallel to the PCB. The screws are captive.

Part Numbers

No. of poles	141-A-111	Length	Pcs
2	10.801.302	10,16	250
3	10.801.303	15,24	250

General Information

Pitch	5,08 mm
No. of poles	2 + 3

Technical Data

Clamping Range	*solid / flexible / AWG*		
	0,14 - 2,5 mm² / 0,14 - 1,5 mm² / 26 - 14 AWG		
Rated Cross Section	1,5 mm²		
Wire Stripping Length	6 mm ± 0,5 mm		
Overvoltage Category	III	III	II
Pollution Severity Level	3	2	2
Rated Voltage	200 V	320 V	500 V
Rated Impulse Voltage	4 kV	4 kV	4 kV
Rated Insulation Voltage	250 V acc. to EN 60998-1		
Rated Current	16 A		
Hole in PCB	ø 1,2 mm		
Torque	0,5 Nm		

Material

Moulding	PA, grey, V-0
Comparative Tracking Index	CTI ≥ 600
Insulating Group	I
Temperature Range	-40°C up to 100°C
Terminal body	Nickel plated brass
Pressure clamp	Tin plated tin bronze
Screw	M3; zinc plated steel, blue passivated
Solder pin	0,9 x 0,5 mm; tin plated tin bronze

Approvals

	Current	Voltage	Group	AWG	Nm
	10 [1]	300	B, D	30 - 14	0,51
	15	300	B	30 - 14	0,51

[1] 20 A max for factory-wiring applications only

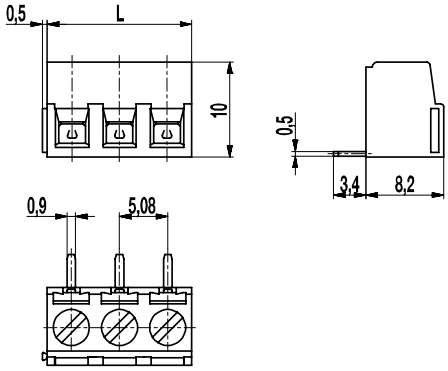
Options / Accessories

- Consecutive numbering
- Special marking according to drawing
- Self-adhesive marking strip BST-5,08
- Pitch of 10,16 mm for larger clearance and creepage distances

PCB connector

141-A-121

Screw connection, wire entrance vertical to PCB, interlocking



The PCB connector 141-A-121 with lift system is the horizontal version of 141-A-111 with a pitch of 5,08 mm and available in 2 and 3 pole design.

Lateral latching elements on the housing allow to lock the PCB connector to longer terminal rows without pole loss. The wire entrance is vertical to the PCB.
The screws are captive.

Part Numbers

No. of poles	141-A-121	Length	Pcs
2	20.801.302	10,16	250
3	20.801.303	15,24	250

General Information

Pitch	5,08 mm
No. of poles	2 + 3

Technical Data

Clamping Range	*solid / flexible / AWG*		
	0,14 - 2,5 mm² / 0,14 - 1,5 mm² / 26 - 14 AWG		
Rated Cross Section	1,5 mm²		
Wire Stripping Length	6 mm ± 0,5 mm		
Overvoltage Category	III	III	II
Pollution Severity Level	3	2	2
Rated Voltage	200 V	320 V	500 V
Rated Impulse Voltage	4 kV	4 kV	4 kV
Rated Insulation Voltage	250 V acc. to EN 60998-1		
Rated Current	16 A		
Hole in PCB	ø 1,2 mm		
Torque	0,5 Nm		

Material

Moulding	PA, grey, V-0
Comparative Tracking Index	CTI ≥ 600
Insulating Group	I
Temperature Range	-40°C up to 100°C
Terminal body	Nickel plated brass
Pressure clamp	Tin plated tin bronze
Screw	M3; zinc plated steel, blue passivated
Solder pin	0,9 x 0,5 mm; tin plated tin bronze

Approvals

	Current	Voltage	Group	AWG	Nm
	10 [1]	300	B, D	30 - 14	0,51
	15	300	B	30 - 14	0,51

[1] 20 A max for factory-wiring applications only

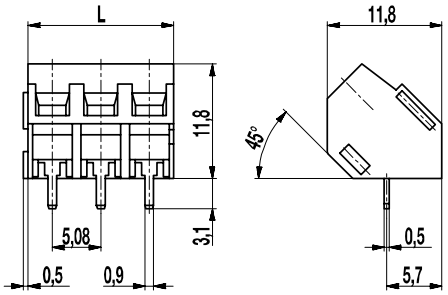
Options / Accessories

- Consecutive numbering
- Special marking according to drawing
- Self-adhesive marking strip BST-5,08
- Pitch of 10,16 mm for larger clearance and creepage distances

PCB connector

141-C-111

Screw connection diagonal 45° to PCB, interlocking



The PCB connector 141-C-111 is the inclined version with lift system with a pitch of 5,08 mm and available in 2 and 3 pole design.

The wire entrance is diagonal, i.e. in a 45° angle to the PC board. Therefore, this PCB connector is ideal for the assembly in the center of PCBs. The design of this PCB connector allows space-saving arrangement of consecutive rows of terminals.

Lateral latching elements on the housing allow to lock the PCB connector to longer terminal rows without pole loss.
The screws are captive.

Part Numbers

No. of poles	141-C-111	Length	Pcs
2	10.801.552	10,16	250
3	10.801.553	15,24	250

General Information

Pitch	5,08 mm
No. of poles	2 + 3

Technical Data

Clamping Range	*solid / flexible / AWG*
	0,14 - 2,5 mm² / 0,14 - 1,5 mm² / 26 - 16 AWG
Rated Cross Section	1,5 mm²
Wire Stripping Length	6 mm
Overvoltage Category	III
Pollution Severity Level	3
Rated Voltage	200 V
Rated Impulse Voltage	4 kV
Rated Insulation Voltage	250 V acc. to EN 60998-1
Rated Current	16 A
Hole in PCB	ø 1,2 mm
Torque	0,5 Nm

Material

Moulding	PA, grey, V-0
Comparative Tracking Index	CTI ≥ 600
Insulating Group	I
Temperature Range	-40°C up to 100°C
Terminal body	Nickel plated brass
Pressure clamp	Tin plated tin bronze
Screw	M3; zinc plated steel, blue passivated
Solder pin	0,9 x 0,5 mm; tin plated tin bronze

Approvals

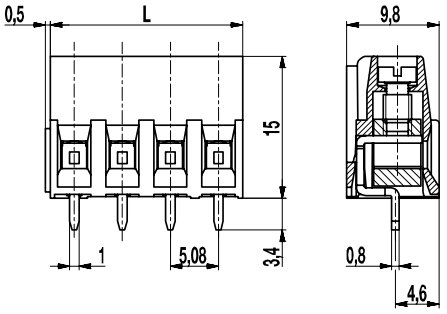
	Current	Voltage	Group	AWG	Nm
	10 [1]	300	B, D	30 - 14	0,51
	15	300	B	30 - 14	0,51

[1] 20 A max for factory-wiring applications only

Options / Accessories

- Consecutive numbering
- Special marking according to drawing
- Self-adhesive marking strip BST-5,08
- Pitch of 10,16 mm for larger clearance and creepage distances
- Connected to larger number of poles

PCB connector
146-A-111
Screw connection, interlocking



The PCB connector 146-A-111 with lift system is designed as one-tier version with a pitch of 5,08 mm and available with 2 to 24 poles.

Lateral latching elements on the housing allow to latch the PCB connector to longer terminal rows without pole loss. The wire entrance is parallel to the PCB. The screws are captive.

Part Numbers

No. of poles	146-A-111	Length	Pcs
2	10.805.302	10,16	250
3	10.805.303	15,24	250
4	10.805.304	20,32	200
5	10.805.305	25,40	100
6	10.805.306	30,48	100
7	10.805.307	35,56	100
8	10.805.308	40,64	100
9	10.805.309	45,72	100
10	10.805.310	50,80	100
11	10.805.311	55,88	100
12	10.805.312	60,96	100
13	10.805.313	66,04	100
14	10.805.314	71,12	100
15	10.805.315	76,20	100
16	10.805.316	81,28	100
17	10.805.317	86,36	100
18	10.805.318	91,44	100
19	10.805.319	96,52	100
20	10.805.320	101,60	100
21	10.805.321	106,68	100
22	10.805.322	111,76	100
23	10.805.323	116,84	100
24	10.805.324	121,92	100

General Information

Pitch	5,08 mm
No. of poles	2 - 24

Technical Data

Clamping Range	*solid / flexible / AWG*		
	0,14 - 4 mm² / 0,14 - 2,5 mm² / 26 - 14 AWG		
Rated Cross Section	2,5 mm²		
Wire Stripping Length	7 mm ± 0,5 mm		
Overvoltage Category	III	III	II
Pollution Severity Level	3	2	2
Rated Voltage	250 V	320 V	630 V
Rated Impulse Voltage	4 kV	4 kV	4 kV
Rated Insulation Voltage	250 V acc. to EN 60998-1		
Rated Current	24 A		
Hole in PCB	ø 1,4 mm		
Torque	0,5 Nm		

Material

Moulding	PA, grey, V-0
Comparative Tracking Index	CTI ≥ 600
Insulating Group	I
Temperature Range	-40°C up to 100°C
Terminal body	Nickel plated brass
Pressure clamp	Copper alloy, tin plated
Screw	M3; zinc plated steel, blue passivated
Solder pin	1,0 x 0,8 mm; copper alloy, tin plated

Approvals

	Current	Voltage	Group	AWG	Nm
	20	300	B	26 - 12	0,51
	10	300	D	26 - 12	0,51
	20	300	B	26 - 12	0,51
	10	300	D, E	26 - 12	0,51

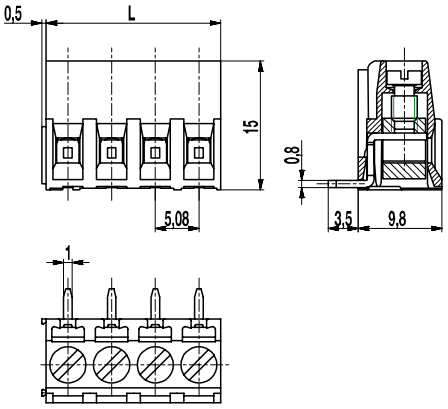
Options / Accessories

- Consecutive numbering
- Special marking according to drawing
- Self-adhesive marking strip BST-5,08
- Pitch of 10,16 mm for larger clearance and creepage distances

PCB connector

146-A-121

Screw connection, wire entrance vertical to PCB, interlocking



The PCB connector 146-A-121 with lift system is the horizontal version of 146-A-111 with a pitch of 5,08 mm and available with 2 to 24 poles.

Lateral latching elements on the housing allow to latch the PCB connector to longer terminal rows without pole loss.
The wire entrance is vertical to the PCB.
The screws are captive.

Part Numbers

No. of poles	146-A-121	Length	Pcs
2	20.805.302	10,16	250
3	20.805.303	15,24	250
4	20.805.304	20,32	200
5	20.805.305	25,40	100
6	20.805.306	30,48	100
7	20.805.307	36,56	100
8	20.805.308	40,64	100
9	20.805.309	45,72	100
10	20.805.310	50,80	100
11	20.805.311	55,88	100
12	20.805.312	60,96	100
13	20.805.313	66,04	100
14	20.805.314	71,12	100
15	20.805.315	76,20	100
16	20.805.316	81,28	100
17	20.805.317	86,36	100
18	20.805.318	91,44	100
19	20.805.319	96,52	100
20	20.805.320	101,60	100
21	20.805.321	106,68	100
22	20.805.322	111,76	100
23	20.805.323	116,84	100
24	20.805.324	121,92	100

General Information

Pitch	5,08 mm
No. of poles	2 - 24

Technical Data

Clamping Range	*solid / flexible / AWG*		
	0,14 - 4 mm² / 0,14 - 2,5 mm² / 26 - 14 AWG		
Rated Cross Section	2,5 mm²		
Wire Stripping Length	7 mm ± 0,5 mm		
Overvoltage Category	III	III	II
Pollution Severity Level	3	2	2
Rated Voltage	250 V	320 V	630 V
Rated Impulse Voltage	4 kV	4 kV	4 kV
Rated Insulation Voltage	250 V acc. to EN 60998-1		
Rated Current	24 A		
Hole in PCB	ø 1,4 mm		
Torque	0,5 Nm		

Material

Moulding	PA, grey, V-0
Comparative Tracking Index	CTI ≥ 600
Insulating Group	I
Temperature Range	-40°C up to 100°C
Terminal body	Nickel plated brass
Pressure clamp	Copper alloy, tin plated
Screw	M3; zinc plated steel, blue passivated
Solder pin	1,0 x 0,8 mm; copper alloy, tin plated

Approvals

	Current	Voltage	Group	AWG	Nm
	20	300	B	26 - 12	0,51
	10	300	D	26 - 12	0,51
	20	300	B	26 - 12	0,51
	10	300	D, E	26 - 12	0,51

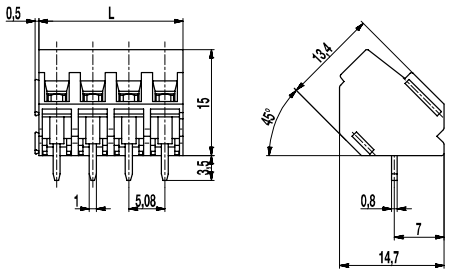
Options / Accessories

- Consecutive numbering
- Special marking according to drawing
- Self-adhesive marking strip BST-5,08
- Pitch of 10,16 mm for larger clearance and creepage distances

PCB connector

146-C-111

Screw connection diagonal 45° to PCB, interlocking



The PCB connector 146-C-111 is the inclined version with lift system with a pitch of 5,08 mm and available with 2 to 24 poles.

The wire entrance is located in a 45° angle to the PC board. Therefore, this PCB connector is ideal for the assembly in the center of PCBs. The design of this PCB connector allows space-saving arrangement of consecutive rows of terminals.

Lateral latching elements on the housing allow to connect the PCB connector to longer terminal strips without pole loss.
The screws are captive.

This PCB connector has test holes for ø 2.3 mm test plugs.

Part Numbers

No. of poles	146-C-111	Length	Pcs
2	10.805.552	10,16	250
3	10.805.553	15,24	250
4	10.805.554	20,32	200
5	10.805.555	25,40	100
6	10.805.556	30,48	100
7	10.805.557	36,56	100
8	10.805.558	40,64	100
9	10.805.559	45,72	100
10	10.805.560	50,80	100
11	10.805.561	55,88	100
12	10.805.562	60,96	50
13	10.805.563	66,04	100
14	10.805.564	71,12	100
15	10.805.565	76,20	100
16	10.805.566	81,28	100
17	10.805.567	86,36	100
18	10.805.568	91,44	50
19	10.805.569	96,52	100
20	10.805.570	101,60	100
21	10.805.571	106,68	100
22	10.805.572	111,76	100
23	10.805.573	116,84	100
24	10.805.574	121,92	50

General Information

Pitch	5,08 mm
No. of poles	2 - 24

Technical Data

Clamping Range	*solid / flexible / AWG*		
	0,14 - 4 mm² / 0,14- 2,5 mm² / 26 - 12 AWG		
Rated Cross Section	2,5 mm²		
Wire Stripping Length	7 mm ± 0,5 mm		
Overvoltage Category	III	III	II
Pollution Severity Level	3	2	2
Rated Voltage	250 V	320 V	630 V
Rated Impulse Voltage	4 kV	4 kV	4 kV
Rated Insulation Voltage	250 V acc. to EN 60998-1		
Rated Current	24 A		
Hole in PCB	ø 1,4 mm		
Torque	0,5 Nm		

Material

Moulding	PA, grey, V-0
Comparative Tracking Index	CTI ≥ 600
Insulating Group	I
Temperature Range	-40°C up to 100°C
Terminal body	Nickel plated brass
Pressure clamp	Copper alloy, tin plated
Screw	M3; zinc plated steel, blue passivated
Solder pin	1,0 x 0,8 mm; copper alloy, tin plated

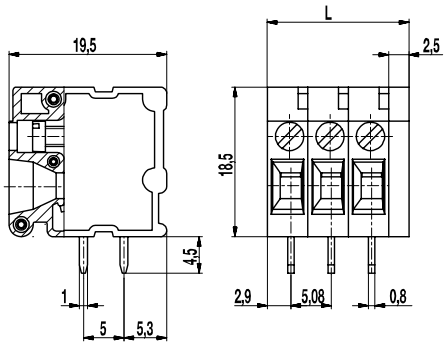
Approvals

	Current	Voltage	Group	AWG	Nm
	20	300	B	26 - 12	0,51
	10	300	D	26 - 12	0,51
	20	300	B	26 - 12	0,51
	10	300	D, E	26 - 12	0,51

Options / Accessories

- Consecutive numbering
- Special marking according to drawing
- Self-adhesive marking strip BST-5,08
- Pitch of 10,16 mm for larger clearance and creepage distances

PCB connector
181-A-111
Screw connection



The PCB connector 181-A-111 features parallel entry for both conductor and screwdriver. It can also be used as printed circuit board termination with front panel penetration.

These PCB connectors are available in 5.08 mm pitch with up to 12 poles, but they can also be plugged together as longer terminal strips.
Each pole has a double solder termination with 5 mm pin spacing.
The wire entrance is parallel to the PCB.

Part Numbers

No. of poles	181-A-111	Length	Pcs
1	11.819.052	7,58	500
2	12.819.052	12,66	250
3	13.819.052	17,74	250
4	14.819.052	22,82	100
5	15.819.052	27,90	50
6	16.819.052	32,98	50
7	17.819.052	38,06	50
8	18.819.052	43,14	50
9	19.819.052	48,22	50
10	20.819.052	53,30	25
11	21.819.052	58,38	25
12	22.819.052	63,46	25

further number of poles on request

General Information

Pitch	5,08 mm
No. of poles	1 - 12
Areas of application	Particularly suitable for confined mounting space or only single-sided access.

Technical Data

Clamping Range	*solid / flexible / AWG*		
	0,14 - 4 mm² / 0,14 - 2,5 mm² / 26 - 12 AWG		
Rated Cross Section	2,5 mm²		
Wire Stripping Length	9 mm ± 0,5 mm		
Overvoltage Category	III	III	II
Pollution Severity Level	3	2	2
Rated Voltage	320 V	320 V	630 V
Rated Impulse Voltage	4 kV	4 kV	4 kV
Rated Insulation Voltage	450 V acc. to EN 60998-1		
Rated Current	24 A		
Hole in PCB	ø 1,4 mm		
Torque	0,4 Nm		

Material

Moulding	PA, grey, V-0
Comparative Tracking Index	CTI ≥ 600
Temperature Range	-40°C up to 100°C
Pressure clamp	Tin plated copper
Screw	M2,5; zinc plated steel, blue passivated
Solder pin	1,0 x 0,8 mm; tin plated copper
Terminal body	Zinc plated steel, blue passivated
Pressure plate	Brass, bright

Approvals

	Current	Voltage	Group	AWG	Nm
	20	300	B	24 - 12	0,4
	10	300	D	24 - 12	0,4
	20	300	B	24 - 12	0,4
	10	300	D, E	24 - 12	0,4

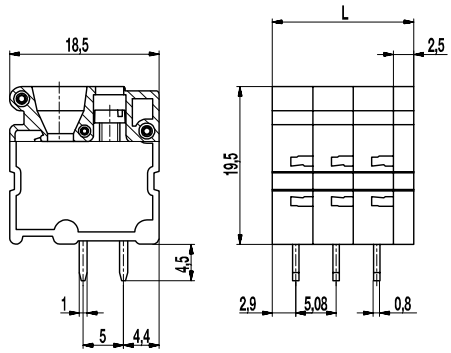
Options / Accessories

- Consecutive numbering
- Special marking according to drawing
- Self-adhesive marking strip BST-5,08
- Connected to larger number of poles

PCB connector

181-A-121

Screw connection, wire entrance vertical to PCB



The PCB connector 181-A-121 features parallel entry for both conductor and screwdriver. It can also be used as printed circuit board termination with front panel penetration.

These PCB connectors are available in 5.08 mm pitch with up to 12 poles, but they can also be plugged together as longer terminal strips.
Each pole has a double solder termination with 5 mm pin spacing.
The wire entrance is vertical to the PCB.

Part Numbers

No. of poles	181-A-121	Length	Pcs
1	11.819.051	7,58	500
2	12.819.051	12,66	250
3	13.819.051	17,74	250
4	14.819.051	22,82	100
5	15.819.051	27,90	50
6	16.819.051	32,98	50
7	17.819.051	38,06	50
8	18.819.051	43,14	50
9	19.819.051	48,22	50
10	20.819.051	53,30	25
11	21.819.051	58,38	25
12	22.819.051	63,46	25

further number of poles on request

General Information

Pitch	5,08 mm
No. of poles	1 - 12
Areas of application	Particularly suitable for confined mounting space or only single-sided access.

Technical Data

Clamping Range	*solid / flexible / AWG*		
	0,14 - 4 mm² / 0,14 - 2,5 mm² / 26 - 12 AWG		
Rated Cross Section	2,5 mm²		
Wire Stripping Length	9 mm ± 0,5 mm		
Overvoltage Category	III	III	II
Pollution Severity Level	3	2	2
Rated Voltage	320 V	320 V	630 V
Rated Impulse Voltage	4 kV	4 kV	4 kV
Rated Insulation Voltage	450 V acc. to EN 60998-1		
Rated Current	24 A		
Hole in PCB	ø 1,4 mm		
Torque	0,4 Nm		

Material

Moulding	PA, grey, V-0
Comparative Tracking Index	CTI ≥ 600
Temperature Range	-40°C up to 100°C
Pressure clamp	Tin plated copper
Screw	M2,5; zinc plated steel, blue passivated
Solder pin	1,0 x 0,8 mm; tin plated copper
Terminal body	Zinc plated steel, blue passivated
Pressure plate	Brass, bright

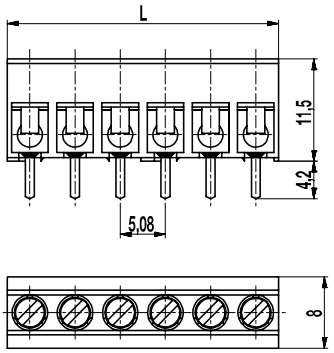
Approvals

	Current	Voltage	Group	AWG	Nm
	20	300	B	24 - 12	0,4
	10	300	D	24 - 12	0,4
	20	300	B	24 - 12	0,4
	10	300	D, E	24 - 12	0,4

Options / Accessories

- Consecutive numbering
- Special marking according to drawing
- Self-adhesive marking strip BST-5,08
- Connected to larger number of poles

PCB connector
940(-DS)
Screw connection



PCB connectors 940 with a pitch of 5,08 mm are available in 2- to 32-pole design and can be mounted side-by-side without pole loss.

Wire protection in DS-design reliably prevents damage to stranded wires by the screw.
The screws are secured against self-loosening.

Part Numbers

No. of poles	940	940-DS	Length	Pcs
2	10.877.002	20.877.002	10,16	250
3	10.877.003	20.877.003	15,24	250
4	10.877.004	20.877.004	20,32	200
5	10.877.005	20.877.005	25,40	100
6	10.877.006	20.877.006	30,48	100
7	10.877.007	20.877.007	35,56	100
8	10.877.008	20.877.008	40,64	100
9	10.877.009	20.877.009	45,72	100
10	10.877.010	20.877.010	50,80	100
11	10.877.011	20.877.011	55,88	100
12	10.877.012	20.877.012	60,96	100
13	10.877.013	20.877.013	66,04	100
14	10.877.014	20.877.014	71,12	100
15	10.877.015	20.877.015	76,20	100
16	10.877.016	20.877.016	81,28	100
17	10.877.017	20.877.017	86,36	100
18	10.877.018	20.877.018	91,44	100
19	10.877.019	20.877.019	96,52	100
20	10.877.020	20.877.020	101,60	100
21	10.877.021	20.877.021	106,68	100
22	10.877.022	20.877.022	111,76	100
23	10.877.023	20.877.023	116,84	100
24	10.877.024	20.877.024	121,94	100

further number of poles on request

General Information

Pitch	5,08 mm
No. of poles	2 - 32

Technical Data

Clamping Range	*solid / flexible / AWG*		
without wire protector	0,75 - 4 mm² / 0,75 - 2,5 mm² / 18 - 12 AWG		
with wire protector	0,34 - 2,5 mm² / 0,34 - 2,5 mm² / 22 - 14 AWG		
Rated Cross Section	1,5 mm²		
Wire Stripping Length	6 mm ± 0,5 mm		
Overvoltage Category	III	III	II
Pollution Severity Level	3	2	2
Rated Voltage	160 V	160 V	320 V
Rated Impulse Voltage	2,5 kV	2,5 kV	2,5 kV
Rated Insulation Voltage	130 V acc. to EN 60998-1		
Rated Current	17,5 A		
Hole in PCB	ø 1,3 mm		
Torque	0,4 Nm		
Other specifications	2-8 poles types: "no-flame" acc. to glow-wire test		

Material

Moulding	PA, grey, V-0
Comparative Tracking Index	2-8 poles: CTI ≥ 600; 9-32 poles: CTI 400
Insulating Group	2-8 poles: I; 9-32 poles: II
Temperature Range	-40°C up to 100°C
Terminal body	Tin plated brass
Screw	M2,6; zinc plated steel, blue passivated
Solder pin	ø 1 mm; tin plated copper
Wire protector	Tin plated tin bronze

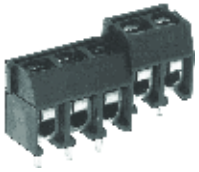
Approvals

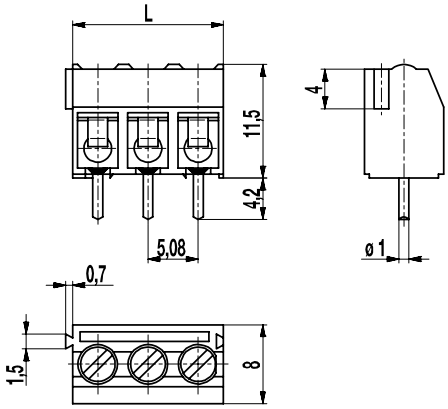
	Current	Voltage	Group	AWG	Nm
	15	300	B	26 - 14	0,4
	15	300	B	26 - 14	0,4
	Current	Voltage	mm²		
	17,5	250	1,5		

Options / Accessories

- Consecutive numbering
- Special marking according to drawing
- Self-adhesive marking strip BST-5,08
- Longer P.C. pins up to 75 mm

PCB connector
940-T(-DS)
Screw connection, interlocking





The PCB connector 940-T with a pitch of 5,08 mm is available with 2 and 3 poles and can be mounted side-by-side without pole loss.

Lateral latching elements on the housing allow to latch the PCB connector to longer terminal strips without pole loss.

Wire protection in DS-design reliably prevents damage to stranded wires by the screw.
The screws are secured against self-loosening.

Part Numbers

No. of poles	940-T	940-T-DS	Length	Pcs
2	10.877.602	20.877.602	10,16	250
3	10.877.603	20.877.603	15,24	250

General Information

Pitch	5,08 mm
No. of poles	2 + 3

Technical Data

Clamping Range	*solid / flexible / AWG*		
without wire protector	0,75 - 4 mm² / 0,75 - 2,5 mm² / 18 - 12 AWG		
with wire protector	0,34 - 2,5 mm² / 0,34 - 2,5 mm² / 22 - 14 AWG		
Rated Cross Section	1,5 mm²		
Wire Stripping Length	6 mm ± 0,5 mm		
Overvoltage Category	III	III	II
Pollution Severity Level	3	2	2
Rated Voltage	160 V	160 V	320 V
Rated Impulse Voltage	2,5 kV	2,5 kV	2,5 kV
Rated Insulation Voltage	130 V acc. to EN 60998-1		
Rated Current	17,5 A		
Hole in PCB	ø 1,3 mm		
Torque	0,4 Nm		

Material

Moulding	PA, grey, V-0
Comparative Tracking Index	CTI ≥ 600
Insulating Group	I
Temperature Range	-40°C up to 100°C
Terminal body	Tin plated brass
Screw	M 2,6; zinc plated steel, blue passivated
Solder pin	ø 1 mm; tin plated copper
Wire protector	Tin plated tin bronze

Approvals

	Current	Voltage	Group	AWG	Nm
	15	300	B	26 - 14	0,4
	15	300	B	26 - 14	0,4
	Current	Voltage	mm²		
	10	250	1,5		

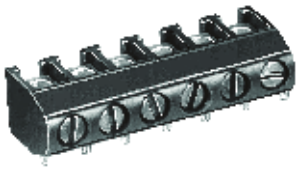
Options / Accessories

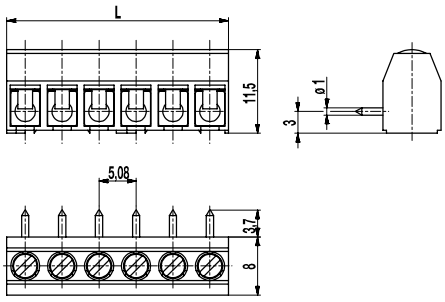
- Consecutive numbering
- Special marking according to drawing
- Self-adhesive marking strip BST-5,08
- Longer P.C. pins up to 75 mm
- Version up to 8 poles

PCB connector

941(-DS)

Screw connection, wire entrance vertical to PCB





The PCB connector 941 is the horizontal version of 940 with a pitch of 5,08 mm and available in 2- to 32-pole design. It can be mounted side-by-side without pole loss.
The wire entrance is vertical to the PCB.

Wire protection in DS-design reliably prevents damage to stranded wires by the screw.
The screws are secured against self-loosening.

Part Numbers

No. of poles	941	941-DS	Length	Pcs
2	10.877.102	20.877.102	10,16	250
3	10.877.103	20.877.103	15,24	250
4	10.877.104	20.877.104	20,32	200
5	10.877.105	20.877.105	25,40	100
6	10.877.106	20.877.106	30,48	100
7	10.877.107	20.877.107	35,56	100
8	10.877.108	20.877.108	40,64	100
9	10.877.109	20.877.109	45,72	100
10	10.877.110	20.877.110	50,80	100
11	10.877.111	20.877.111	55,88	100
12	10.877.112	20.877.112	60,96	100
13	10.877.113	20.877.113	66,04	100
14	10.877.114	20.877.114	71,12	100
15	10.877.115	20.877.115	76,20	100
16	10.877.116	20.877.116	81,28	100
17	10.877.117	20.877.117	86,36	100
18	10.877.118	20.877.118	91,44	100
19	10.877.119	20.877.119	96,52	100
20	10.877.120	20.877.120	101,60	100
21	10.877.121	20.877.121	106,68	100
22	10.877.122	20.877.122	111,76	100
23	10.877.123	20.877.123	116,84	100
24	10.877.124	20.877.124	121,92	100

further number of poles on request

General Information

Pitch	5,08 mm
No. of poles	2 - 32

Technical Data

Clamping Range	*solid / flexible / AWG*		
without wire protector	0,75 - 4 mm² / 0,75 - 2,5 mm² / 18 - 12 AWG		
with wire protector	0,34 - 2,5 mm² / 0,34 - 2,5 mm² / 22 - 14 AWG		
Rated Cross Section	1,5 mm²		
Wire Stripping Length	5 mm ± 0,5 mm		
Overvoltage Category	III	III	II
Pollution Severity Level	3	2	2
Rated Voltage	160 V	160 V	320 V (250 V)
Rated Impulse Voltage	2,5 kV	2,5 kV	2,5 kV
Rated Insulation Voltage	130 V acc. to EN 60998-1		
Rated Current	17,5 A		
Hole in PCB	ø 1,3 mm		
Torque	0,4 Nm		
Other specifications	Voltage data in brackets are valid for 9-32 poles types. 2-8 poles types: "no-flame" acc. to glow-wire test.		

Material

Moulding	PA, grey, V-0
Comparative Tracking Index	2-8 poles: CTI ≥ 600; 9-32 poles: CTI 250
Insulating Group	2-8 poles: I; 9-32 poles: IIIa
Temperature Range	-40°C up to 100°C
Terminal body	Tin plated brass
Screw	M2,6; zinc plated steel, blue passivated
Solder pin	ø 1 mm; tin plated brass
Wire protector	Tin plated tin bronze

Approvals

	Current	Voltage	Group	AWG	Nm
	15	300	B	26 - 14	0,4
	15	300	B	26 - 14	0,4
	Current	Voltage	mm²		
	17,5	250	1,5		

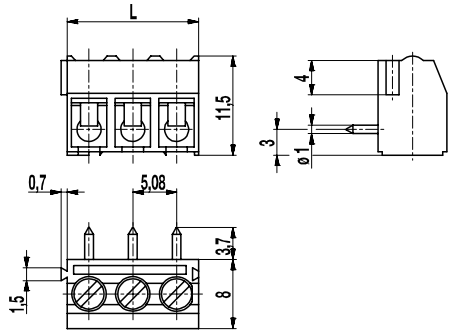
Options / Accessories

- Consecutive numbering
- Special marking according to drawing
- Self-adhesive marking strip BST-5,08

PCB connector

941-T(-DS)

Screw connection, wire entrance vertical to PCB, interlocking



The PCB connector 941-T is the horizontal version of 940-T with a pitch of 5,08 mm and available in 2 and 3 poles. It can be mounted side-by-side without pole loss.

Lateral latching elements on the housing allow to latch the PCB connector to longer terminal strips without pole loss.
The wire entrance is vertical to the PCB.

Wire protection in DS-design reliably prevents damage to stranded wires by the screw.
The screws are secured against self-loosening.

Part Numbers

No. of poles	941-T	941-T-DS	Length	Pcs
2	10.877.612	20.877.612	10,16	250
3	10.877.613	20.877.613	15,24	250

General Information

Pitch	5,08 mm
No. of poles	2 + 3

Technical Data

Clamping Range	*solid / flexible / AWG*		
without wire protector	0,75 - 4 mm² / 0,75 - 2,5 mm² / 18 - 12 AWG		
with wire protector	0,34 - 2,5 mm² / 0,34 - 2,5 mm² / 22 - 14 AWG		
Rated Cross Section	1,5 mm²		
Wire Stripping Length	5 mm ± 0,5 mm		
Overvoltage Category	III	III	II
Pollution Severity Level	3	2	2
Rated Voltage	160 V	160 V	320 V
Rated Impulse Voltage	2,5 kV	2,5 kV	2,5 kV
Rated Insulation Voltage	130 V acc. to EN 60998-1		
Rated Current	17,5 A		
Hole in PCB	ø 1,3 mm		
Torque	0,4 Nm		

Material

Moulding	PA, grey, V-0
Comparative Tracking Index	CTI ≥ 600
Insulating Group	I
Temperature Range	-40°C up to 100°C
Terminal body	Tin plated brass
Screw	M2,6; zinc plated steel, blue passivated
Solder pin	ø 1 mm; tin plated brass
Wire protector	Tin plated tin bronze

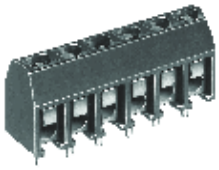
Approvals

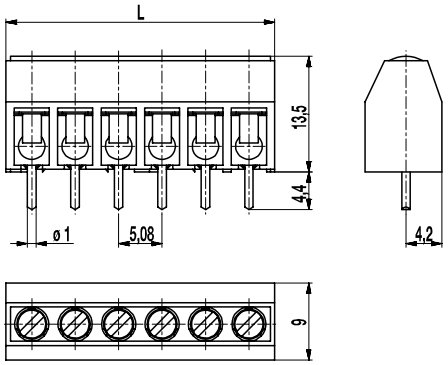
	Current	Voltage	Group	AWG	Nm
	15	300	B	26 - 14	0,4
	15	300	B	26 - 14	0,4
	Current	Voltage	mm²		
	10	250	1,5		

Options / Accessories

- Consecutive numbering
- Special marking according to drawing
- Self-adhesive marking strip BST-5,08
- Version up to 8 poles

PCB connector
960(-DS)
Screw connection





The PCB connector 960 with a pitch of 5,08 mm is available in 2- to 32-pole design and can be mounted side-by-side without pole loss.
Compared to the smaller PCB connector 940, it has a larger clamping range and larger clearance and creepage distances.

Wire protection in DS-design reliably prevents damage to stranded wires by the screw.
The screws are secured against self-loosening.
For the grid connection, these PCB connectors are equipped with a M3 thread.

Part Numbers

No. of poles	960	960-DS	Length	Pcs
2	10.878.002	20.878.002	11,16	250
3	10.878.003	20.878.003	16,24	250
4	10.878.004	20.878.004	21,32	200
5	10.878.005	20.878.005	26,40	100
6	10.878.006	20.878.006	31,48	100
7	10.878.007	20.878.007	36,56	100
8	10.878.008	20.878.008	41,64	100
9	10.878.009	20.878.009	46,72	100
10	10.878.010	20.878.010	51,80	100
11	10.878.011	20.878.011	56,88	100
12	10.878.012	20.878.012	61,96	100
13	10.878.013	20.878.013	67,04	100
14	10.878.014	20.878.014	72,12	100
15	10.878.015	20.878.015	77,20	100
16	10.878.016	20.878.016	82,28	100
17	10.878.017	20.878.017	87,36	100
18	10.878.018	20.878.018	92,44	100
19	10.878.019	20.878.019	97,52	100
20	10.878.020	20.878.020	102,60	100
21	10.878.021	20.878.021	107,68	100
22	10.878.022	20.878.022	112,76	100
23	10.878.023	20.878.023	117,84	100
24	10.878.024	20.878.024	122,92	100
26	10.878.026	20.878.026	133,09	100
28	10.878.028	20.878.028	143,24	100
30	10.878.030	20.878.030	153,40	100
32	10.878.032	20.878.032	163,56	100

further number of poles on request

General Information

Pitch	5,08 mm
No. of poles	2 - 32

Technical Data

Clamping Range	*solid / flexible / AWG*		
without wire protector	1 - 6 mm² / 1 - 2,5 mm² / 16 - 12 AWG		
with wire protector	0,75 - 4 mm² / 0,75 - 2,5 mm² / 18 - 12 AWG		
Rated Cross Section	2,5 mm²		
Wire Stripping Length	6,5 mm ± 0,5 mm		
Overvoltage Category	III	III	II
Pollution Severity Level	3	2	2
Rated Voltage	250 V (200 V)	320 V	630 V (400 V)
Rated Impulse Voltage	4 kV	4 kV	4 kV
Rated Insulation Voltage	250 V acc. to EN 60998-1		
Rated Current	24 A		
Hole in PCB	ø 1,3 mm		
Torque	0,5 Nm		
Other specifications	Voltage data in brackets are valid for 9-32 poles types. 2-8 poles types: "no-flame" acc. to glow-wire test.		

Material

Moulding	PA, grey, V-0
Comparative Tracking Index	2-8 poles: CTI ≥ 600; 9-32 poles: CTI 400
Insulating Group	2-8 poles: I; 9-32 poles: II
Temperature Range	-40°C up to 100°C
Terminal body	Tin plated brass
Screw	M3; zinc plated steel, blue passivated
Solder pin	ø 1 mm; tin plated copper
Wire protector	Tin plated tin bronze

Approvals

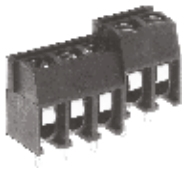
	Current	Voltage	Group	AWG	Nm
	20	300	B	22-12 [1]	0,51
	10	300	D	22-12 [1]	0,51
	20	300	B	26 - 12	0,51
	10	300	D, E	26 - 12	0,51
	Current	Voltage	mm²		
	24	400	2,5		

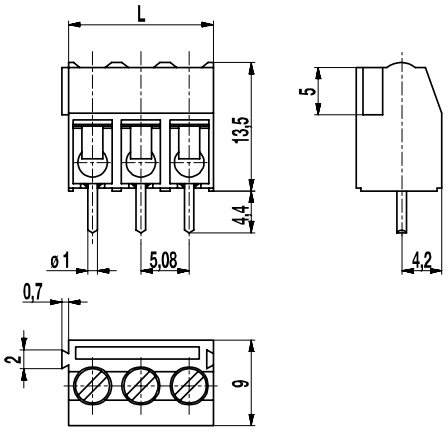
[1] No. 26 AWG min for factory-wiring only

Options / Accessories

- Consecutive numbering
- Special marking according to drawing
- Self-adhesive marking strip BST-5,08
- Longer P.C. pins up to 95 mm
- Version with extended wire entrance
- Double wire protector as bridge

PCB connector
960-T(-DS)
Screw connection, interlocking





The PCB connector 960-T with a pitch of 5,08 mm is available in 2 and 3 poles and can be mounted side-by-side without pole loss.
Compared to the smaller PCB connector 940-T, it has a larger clamping range and larger clearance and creepage distances.

Lateral latching elements on the housing allow to latch the PCB connector to longer terminal strips without pole loss.

Wire protection in DS-design reliably prevents damage to stranded wires by the screw.
The screws are secured against self-loosening.
For the grid connection, these PCB connectors are equipped with a M3 thread.

Part Numbers

No. of poles	960-T	960-T-DS	Length	Pcs
2	10.878.602	20.878.602	11,16	250
3	10.878.603	20.878.603	16,24	250

General Information

Pitch	5,08 mm
No. of poles	2 + 3

Technical Data

Clamping Range	*solid / flexible / AWG*		
without wire protector	1 - 6 mm² / 1 - 2,5 mm² / 16 - 12 AWG		
with wire protector	0,75 - 4 mm² / 0,75 - 2,5 mm² / 18 - 12 AWG		
Rated Cross Section	2,5 mm²		
Wire Stripping Length	6,5 mm ± 0,5 mm		
Overvoltage Category	III	III	II
Pollution Severity Level	3	2	2
Rated Voltage	250 V	320 V	630 V
Rated Impulse Voltage	4 kV	4 kV	4 kV
Rated Insulation Voltage	250 V acc. to EN 60998-1		
Rated Current	24 A		
Hole in PCB	ø 1,3 mm		
Torque	0,5 Nm		

Material

Moulding	PA, grey, V-0
Comparative Tracking Index	CTI ≥ 600
Insulating Group	I
Temperature Range	-40°C up to 100°C
Terminal body	Tin plated brass
Screw	M3; zinc plated steel, blue passivated
Solder pin	ø 1 mm; tin plated copper
Wire protector	Tin plated tin bronze

Approvals

	Current	Voltage	Group	AWG	Nm
	20	300	B	22-12 [1]	0,51
	10	300	D	22-12 [1]	0,51
	20	300	B	26 - 12	0,51
	10	300	D, E	26 - 12	0,51
	Current	Voltage	mm²		
	24	400	2,5		

[1] No. 26 AWG min for factory-wiring only

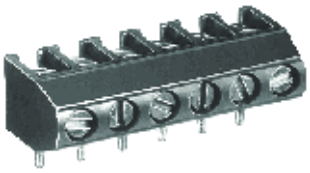
Options / Accessories

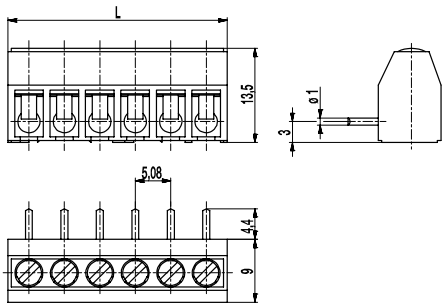
- Consecutive numbering
- Special marking according to drawing
- Self-adhesive marking strip BST-5,08
- Longer P.C. pins up to 95 mm
- Version with extended wire entrance
- Double wire protector as bridge

PCB connector

961(-DS)

Screw connection, wire entrance vertical to PCB





The PCB connector 961 is the horizontal version of 960 with a pitch of 5,08 mm and available in 2- to 32-pole design. It can be mounted side-by-side without pole loss.
The wire entrance is vertical to the PCB.
Compared to the smaller PCB connector 941, it has a larger clamping range and larger clearance and creepage distances.

Wire protection in DS-design reliably prevents damage to stranded wires by the screw.
The screws are secured against self-loosening.
For the grid connection, these PCB connectors are equipped with a M3 thread.

Part Numbers

No. of poles	961	961-DS	Length	Pcs
2	10.878.102	20.878.102	11,16	250
3	10.878.103	20.878.103	16,24	250
4	10.878.104	20.878.104	21,32	200
5	10.878.105	20.878.105	26,40	100
6	10.878.106	20.878.106	31,48	100
7	10.878.107	20.878.107	36,56	100
8	10.878.108	20.878.108	41,64	100
9	10.878.109	20.878.109	46,72	100
10	10.878.110	20.878.110	51,80	100
11	10.878.111	20.878.111	56,88	100
12	10.878.112	20.878.112	61,96	100
13	10.878.113	20.878.113	67,04	100
14	10.878.114	20.878.114	72,12	100
15	10.878.115	20.878.115	77,20	100
16	10.878.116	20.878.116	82,28	100
17	10.878.117	20.878.117	87,36	100
18	10.878.118	20.878.118	92,44	100
19	10.878.119	20.878.119	97,52	100
20	10.878.120	20.878.120	102,60	100
21	10.878.121	20.878.121	107,68	100
22	10.878.122	20.878.122	112,76	100
23	10.878.123	20.878.123	117,84	100
24	10.878.124	20.878.124	122,92	100
26	10.878.126	20.878.126	133,09	100
28	10.878.128	20.878.128	143,24	100
30	10.878.130	20.878.130	153,40	100
32	10.878.132	20.878.132	163,56	100

further number of poles on request

General Information

Pitch	5,08 mm
No. of poles	2 - 32

Technical Data

Clamping Range	*solid / flexible / AWG*		
without wire protector	1 - 6 mm² / 1 - 2,5 mm² / 16 - 12 AWG		
with wire protector	0,75 - 4 mm² / 0,75 - 2,5 mm² / 18 - 12 AWG		
Rated Cross Section	2,5 mm²		
Wire Stripping Length	5,5 mm ± 0,5 mm		
Overvoltage Category	III	III	II
Pollution Severity Level	3	2	2
Rated Voltage	250 V	320 V	630 V (500 V)
Rated Impulse Voltage	4 kV	4 kV	4 kV
Rated Insulation Voltage	250 V acc. to EN 60998-1		
Rated Current	24 A		
Hole in PCB	ø 1,3 mm		
Torque	0,5 Nm		
Other specifications	Voltage data in brackets are valid for 9-32 poles types. 2-8 poles types: "no-flame" acc. to glow-wire test.		

Material

Moulding	PA, grey, V-0
Comparative Tracking Index	2-8 poles: CTI ≥ 600; 9-32 poles: CTI 400
Insulating Group	2-8 poles: I; 9-32 poles: II
Temperature Range	-40°C up to 100°C
Terminal body	Tin plated brass
Screw	M3; zinc plated steel, blue passivated
Solder pin	ø 1 mm; tin plated brass
Wire protector	Tin plated tin bronze

Approvals

	Current	Voltage	Group	AWG	Nm
	20	300	B	22-12 [1]	0,51
	10	300	D	22-12 [1]	0,51
	20	300	B	26 - 12	0,51
	10	300	D, E	26 - 12	0,51
	Current	Voltage	mm²		
	24	400	2,5		

[1] Min No. 26 AWG for factory-wiring only

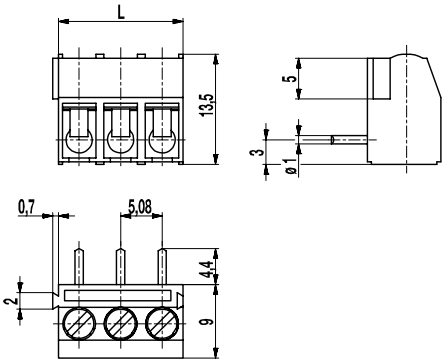
Options / Accessories

- Consecutive numbering
- Special marking according to drawing
- Self-adhesive marking strip BST-5,08
- Version with extended wire entrance
- Double wire protector as bridge

PCB connector

961-T(-DS)

Screw connection, wire entrance vertical to PCB, interlocking



The PCB connector 961-T is the horizontal version of 960-T with a pitch of 5,08 mm and available in 2 and 3 poles. It can be mounted side-by-side without pole loss.
Compared to the smaller PCB connector 941-T, it has a larger clamping range and larger clearance and creepage distances.

Lateral latching elements on the housing allow to latch the PCB connector to longer terminal strips without pole loss.
The wire entrance is vertical to the PCB.

Wire protection in DS-design reliably prevents damage to stranded wires by the screw.
The screws are secured against self-loosening.
For the grid connection, these PCB connectors are equipped with a M3 thread.

Part Numbers

No. of poles	961-T	961-T-DS	Length	Pcs
2	10.878.612	20.878.612	11,16	250
3	10.878.613	20.878.613	16,24	250

General Information

Pitch	5,08 mm
No. of poles	2 + 3

Technical Data

Clamping Range	*solid / flexible / AWG*		
without wire protector	1 - 6 mm² / 1 - 2,5 mm² / 16 - 12 AWG		
with wire protector	0,75 - 4 mm² / 0,75 - 2,5 mm² / 18 - 12 AWG		
Rated Cross Section	2,5 mm²		
Wire Stripping Length	5,5 mm ± 0,5 mm		
Overvoltage Category	III	III	II
Pollution Severity Level	3	2	2
Rated Voltage	250 V	320 V	630 V
Rated Impulse Voltage	4 kV	4 V	4 kV
Rated Insulation Voltage	250 V acc. to EN 60998-1		
Rated Current	24 A		
Hole in PCB	ø 1,3 mm		
Torque	0,5 Nm		

Material

Moulding	PA, grey, V-0
Comparative Tracking Index	CTI ≥ 600
Insulating Group	I
Temperature Range	-40°C up to 100°C
Terminal body	Tin plated brass
Screw	M3; zinc plated steel, blue passivated
Solder pin	ø 1 mm; tin plated brass
Wire protector	Tin plated tin bronze

Approvals

	Current	Voltage	Group	AWG	Nm
	20	300	B	22-12 [1]	0,51
	10	300	D	22-12 [1]	0,51
	20	300	B	26 - 12	0,51
	10	300	D, E	26 - 12	0,51
	Current	Voltage	mm²		
	24	400	2,5		

[1] Min No. 26 AWG for factory-wiring only

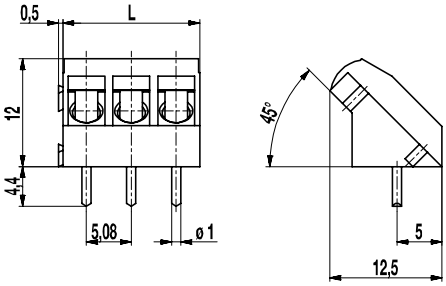
Options / Accessories

- Consecutive numbering
- Special marking according to drawing
- Self-adhesive marking strip BST-5,08
- Longer P.C. pins up to 75 mm
- Version with extended wire entrance
- Double wire protector as bridge

PCB connector

964-T(-DS)

Screw connection diagonal 45° to PCB, interlocking



The PCB connector 964-T is the inclined version with a pitch of 5,08 mm and available in 2- and 3 poles. It can be mounted side-by-side without pole loss.

Lateral latching elements on the housing allow to latch the PCB connector to longer terminal strips without pole loss.
The wire entrance is diagonal, i.e. in a 45° angle to the PC board. Therefore, this PCB connector is ideal for the assembly in the center of PCBs. The design of this PCB connector allows space-saving arrangement of consecutive rows of terminals.

Wire protection in DS-design reliably prevents damage to stranded wires by the screw.
The screws are secured against self-loosening.
For the grid connection, these PCB connectors are equipped with a M3 thread.

Part Numbers

No. of poles	964-T	964-T-DS	Length	Pcs
2	10.874.612	20.874.612	10,16	250
3	10.874.613	20.874.613	15,24	250

General Information

Pitch	5,08 mm
No. of poles	2 + 3

Technical Data

Clamping Range	*solid / flexible / AWG*		
without wire protector	1 - 6 mm² / 1 - 4 mm² / 16 - 12 AWG		
with wire protector	0,75 - 4 mm² / 0,75 - 4 mm² / 18 - 12 AWG		
Rated Cross Section	2,5 mm²		
Wire Stripping Length	6,5 mm		
Overvoltage Category	III	III	II
Pollution Severity Level	3	2	2
Rated Voltage	250 V	320 V	630 V
Rated Impulse Voltage	4 kV	4 kV	4 kV
Rated Insulation Voltage	250 V acc. to EN 60998-1		
Rated Current	24 A		
Hole in PCB	ø 1,3 mm		
Torque	0,5 Nm		

Material

Moulding	PA, grey, V-0
Comparative Tracking Index	CTI ≥ 600
Insulating Group	I
Temperature Range	-40°C up to 100°C
Terminal body	Tin plated brass
Screw	M3; zinc plated steel, clear passivated
Solder pin	ø 1 mm; tin plated copper
Wire protector	Tin plated tin bronze

Approvals

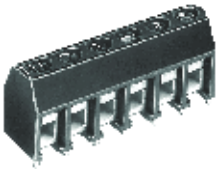
	Current	Voltage	Group	AWG	Nm
	20	300	B	22-12 [1]	0,51
	10	300	D	22-12 [1]	0,51
	20	300	B	26 - 12	0,51
	10	300	D, E	26 - 12	0,51

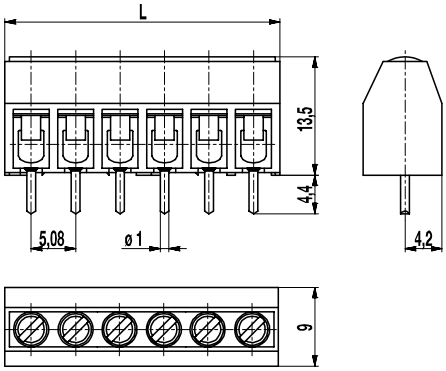
[1] Min No. 26 AWG for factory-wiring only

Options / Accessories

- Consecutive numbering
- Special marking according to drawing
- Self-adhesive marking strip BST-5,08
- Longer P.C. pins up to 95 mm
- Special wire protector for very thin conductors

PCB connector
968(-DS)
Screw connection, large conductor space





The PCB connector 968 with a pitch of 5,08 mm is available in 2- to 32-pole design and can be mounted side-by-side without pole loss.
Compared to the PCB connector 960, it has a larger conductor space for wires up to 6 mm².

Wire protection in DS-design reliably prevents damage to stranded wires by the screw.
The screws are secured against self-loosening.
For the grid connection, these PCB connectors are equipped with a M3 thread.

Part Numbers

No. of poles	968	968-DS	Length	Pcs
2	30.878.002	40.878.002	11,16	250
3	30.878.003	40.878.003	16,24	250
4	30.878.004	40.878.004	21,32	200
5	30.878.005	40.878.005	26,40	100
6	30.878.006	40.878.006	31,48	100
7	30.878.007	40.878.007	36,56	100
8	30.878.008	40.878.008	41,64	100
9	30.878.009	40.878.009	46,72	100
10	30.878.010	40.878.010	51,80	100
11	30.878.011	40.878.011	56,88	100
12	30.878.012	40.878.012	61,96	100
13	30.878.013	40.878.013	67,04	100
14	30.878.014	40.878.014	72,12	100
15	30.878.015	40.878.015	77,20	100
16	30.878.016	40.878.016	82,28	100
17	30.878.017	40.878.017	87,36	100
18	30.878.018	40.878.018	92,44	100
19	30.878.019	40.878.019	97,52	100
20	30.878.020	40.878.020	102,60	100
21	30.878.021	40.878.021	107,68	100
22	30.878.022	40.878.022	112,76	100
23	30.878.023	40.878.023	117,84	100
24	30.878.024	40.878.024	122,92	100
26	30.878.026	40.878.026	133,09	100
28	30.878.028	40.878.028	143,24	100
30	30.878.030	40.878.030	153,40	100
32	30.878.032	40.878.032	163,56	100

further number of poles on request

General Information

Pitch	5,08 mm
No. of poles	2 - 32

Technical Data

Clamping Range	*solid / flexible / AWG*		
without wire protector	0,75 - 6 mm² / 0,75 - 4 mm² / 18 - 10 AWG		
with wire protector	0,34 - 6 mm² / 0,34 - 4 mm² / 22 - 10 AWG		
Rated Cross Section	2,5 mm²		
Wire Stripping Length	6,5 mm ± 0,5 mm		
Overvoltage Category	III	III	II
Pollution Severity Level	3	2	2
Rated Voltage	250 V (200 V)	320 V	630 V (400 V)
Rated Impulse Voltage	4 kV	4 kV	4 kV
Rated Insulation Voltage	250 V acc. to EN 60998-1		
Rated Current	24 A		
Hole in PCB	ø 1,3 mm		
Torque	0,5 Nm		
Other specifications	Voltage data in brackets are valid for 9-32 poles types. 2-8 poles types: "no-flame" acc. to glow-wire test.		

Material

Moulding	PA, grey, V-0
Comparative Tracking Index	2-8 poles: CTI ≥ 600; 9-32 poles: CTI 400
Insulating Group	2-8 poles: I; 9-32 poles: II
Temperature Range	-40°C up to 100°C
Terminal body	Tin plated brass
Screw	M3; zinc plated steel, blue passivated
Solder pin	ø 1 mm; tin plated copper
Wire protector	Tin plated tin bronze

Approvals

	Current	Voltage	Group	AWG	Nm
	20	300	B	22-12 [1]	0,51
	10	300	D	22-12 [1]	0,51
	20	300	B	26 - 12	0,51
	10	300	D, E	26 - 12	0,51
	Current	Voltage	mm²		
	24	400	4,0		

[1] Min No. 26 AWG for factory-wiring only

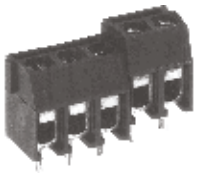
Options / Accessories

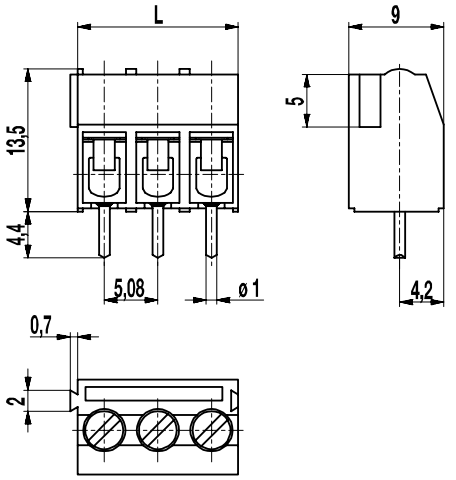
- Consecutive numbering
- Special marking according to drawing
- Self-adhesive marking strip BST-5,08
- Longer P.C. pins up to 95 mm
- 2 P.C. pins per pole, please see 978-TY
- Version with extended wire entrance

PCB connector

968-T(-DS)

Screw connection, large conductor space, interlocking





The PCB connector 968-T with a pitch of 5,08 mm is available in 2- and 3 poles and can be mounted side-by-side without pole loss.
Compared to the PCB connector 960-T, it has a larger conductor space for wires up to 6 mm².

Lateral latching elements on the housing allow to latch the PCB connector to longer terminal strips without pole loss.

Wire protection in DS-design reliably prevents damage to stranded wires by the screw.
The screws are secured against self-loosening.
For the grid connection, these PCB connectors are equipped with a M3 thread.

Part Numbers

No. of poles	968-T	968-T-DS	Length	Pcs
2	30.878.602	40.878.602	10,16	250
3	30.878.603	40.878.603	15,24	250

General Information

Pitch	5,08 mm
No. of poles	2 + 3

Technical Data

Clamping Range	*solid / flexible / AWG*		
without wire protector	0,75 - 6 mm² / 0,75 - 4 mm² / 18 - 10 AWG		
with wire protector	0,34 - 6 mm² / 0,34 - 4 mm² / 22 - 10 AWG		
Rated Cross Section	2,5 mm²		
Wire Stripping Length	6,5 mm ± 0,5 mm		
Overvoltage Category	III	III	II
Pollution Severity Level	3	2	2
Rated Voltage	250 V	320 V	630 V
Rated Impulse Voltage	4 kV	4 kV	4 kV
Rated Insulation Voltage	250 V acc. to EN 60998-1		
Rated Current	24 A		
Hole in PCB	ø 1,3 mm		
Torque	0,5 Nm		

Material

Moulding	PA, grey, V-0
Comparative Tracking Index	CTI ≥ 600
Insulating Group	I
Temperature Range	-40°C up to 100°C
Terminal body	Tin plated brass
Screw	M3; zinc plated steel, blue passivated
Solder pin	ø 1 mm; tin plated copper
Wire protector	Tin plated tin bronze

Approvals

	Current	Voltage	Group	AWG	Nm
	20	300	B	22-12 [1]	0,51
	10	300	D	22-12 [1]	0,51
	20	300	B	26 - 12	0,51
	10	300	D, E	26 - 12	0,51
	Current	Voltage	mm²		
	24	400	4,0		

[1] Min No. 26 AWG for factory-wiring only

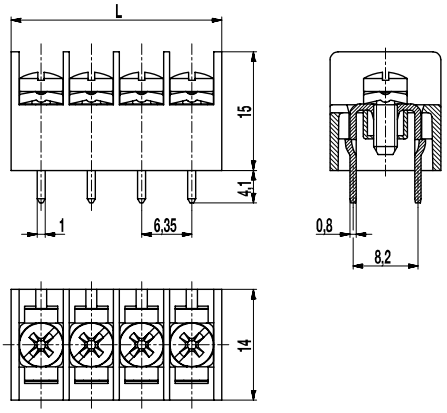
Options / Accessories

- Consecutive numbering
- Special marking according to drawing
- Self-adhesive marking strip BST-5,08
- Longer P.C. pins up to 95 mm
- 2 P.C. pins per pole, please see 978-TY
- Version with extended wire entrance

PCB connector

980-D

Screw connection, 2 P.C. pins per pole



The PCB screw connector 980-D in 6.35 mm pitch is available with 2 to 32 poles. In spite of its small dimensions, it features large clearance and creepage distances.
This version is equipped with two solder pins per pole.

The conductor terminal is of head contact design, whereby the screws and square washers are movably connected.
For easier connection, the non-rotably mounted square washers are automatically lifted when the screw is loosened.

Part Numbers

No. of poles	980-D	Length	Pcs
2	20.873.602	14,00	200
3	20.873.603	20,30	100
4	20.873.604	26,60	100
5	20.873.605	33,00	100
6	20.873.606	39,30	100
7	20.873.607	45,70	50
8	20.873.608	52,00	50
9	20.873.609	58,40	50
10	20.873.610	64,70	50
11	20.873.611	71,10	50
12	20.873.612	77,50	50
13	20.873.613	83,80	50
14	20.873.614	90,10	25
15	20.873.615	96,50	40
16	20.873.616	102,80	25
17	20.873.617	109,20	25
18	20.873.618	115,50	25
19	20.873.619	121,90	25
20	20.873.620	128,20	25
22	20.873.622	141,00	25
24	20.873.624	153,60	25
26	20.873.626	166,30	20
28	20.873.628	179,00	20
30	20.873.630	191,70	20
32	20.873.632	204,30	20

further number of poles on request

General Information

Pitch	6,35 mm
No. of poles	2 - 32

Technical Data

Clamping Range	*solid / flexible / AWG*
	0,25 - 1,5 mm² / 0,25 - 1 mm² / 22 - 18 AWG
Rated Cross Section	1 mm²
Wire Stripping Length	6 mm
Overvoltage Category	III
Pollution Severity Level	3
Rated Voltage	320 V
Rated Impulse Voltage	4 kV
Rated Insulation Voltage	250 V acc. to EN 60998-1
Rated Current	13,5 A
Hole in PCB	ø 1,6 mm
Torque	0,5 Nm
Other specifications	Two wires with same cross section can be connected per pole.

Material

Moulding	PA, grey, V-0
Comparative Tracking Index	CTI ≥ 600
Insulating Group	I
Temperature Range	-40°C up to 100°C
Pressure clamp	Tin plated brass
Screw	M3; zinc plated steel, blue passivated
Solder pin	0,8 x 1,0 mm; tin plated brass

Approvals

	Current	Voltage	Group	AWG	Nm
	7	300	B	22 - 18	0,51
	7	150	C	22 - 18	0,51
	7	300	B, D, E	22 - 18	0,51

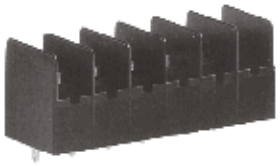
Options / Accessories

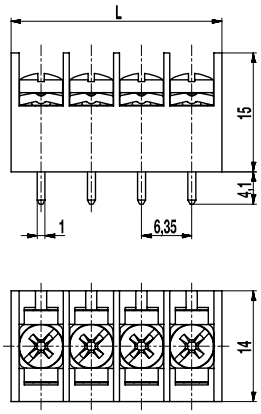
- Consecutive numbering
- Special marking according to drawing
- Crosshead screws
- Cover cap 980-A
- Securing pins BEF-980

PCB connector

980-S

Screw connection, 1 P.C. pin per pole





The PCB screw connector 980-S in 6.35 mm pitch is available with 2 to 32 poles.
In spite of its small dimensions, it features large clearance and creepage distances.
This version is equipped with one solder pin per pole.

The conductor terminal is of head contact design, whereby the screws and square washers are movably connected.
For easier connection, the non-rotably mounted square washers are automatically lifted when the screw is loosened.

Part Numbers

No. of poles	980-S	Length	Pcs
2	10.873.602	14,00	200
3	10.873.603	20,30	100
4	10.873.604	26,60	100
5	10.873.605	33,00	100
6	10.873.606	39,30	100
7	10.873.607	45,70	50
8	10.873.608	52,00	50
9	10.873.609	58,40	50
10	10.873.610	64,70	50
11	10.873.611	71,10	50
12	10.873.612	77,50	50
13	10.873.613	83,80	50
14	10.873.614	90,10	25
15	10.873.615	96,50	40
16	10.873.616	102,80	25
17	10.873.617	109,20	25
18	10.873.618	115,50	25
19	10.873.619	121,90	25
20	10.873.620	128,20	25
22	10.873.622	141,00	25
24	10.873.624	153,60	25
26	10.873.626	166,30	20
28	10.873.628	179,00	20
30	10.873.630	191,70	20
32	10.873.632	204,30	20

further number of poles on request

General Information

Pitch	6,35 mm
No. of poles	2 - 32

Technical Data

Clamping Range	*solid / flexible / AWG*
	0,25 - 1,5 mm² / 0,25 - 1 mm² / 22 - 18 AWG
Rated Cross Section	1 mm²
Wire Stripping Length	6 mm
Overvoltage Category	III
Pollution Severity Level	3
Rated Voltage	320 V
Rated Impulse Voltage	4 kV
Rated Insulation Voltage	250 V acc. to EN 60998-1
Rated Current	13,5 A
Hole in PCB	ø 1,6 mm
Torque	0,5 Nm
Other specifications	Two wires with same cross section can be connected per pole.

Material

Moulding	PA, grey, V-0
Comparative Tracking Index	CTI ≥ 600
Insulating Group	I
Temperature Range	-40°C up to 100°C
Pressure clamp	Tin plated brass
Screw	M3; zinc plated steel, blue passivated
Solder pin	0,8 x 1,0 mm; tin plated brass

Approvals

	Current	Voltage	Group	AWG	Nm
	7	300	B	22 - 18	0,51
	7	150	C	22 - 18	0,51
	7	300	B, D, E	22 - 18	0,51

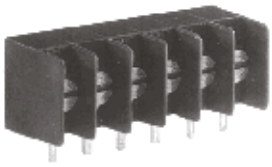
Options / Accessories

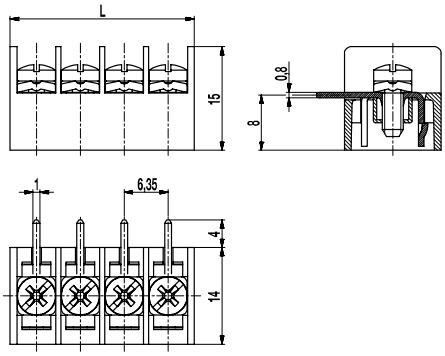
- Consecutive numbering
- Special marking according to drawing
- Crosshead screws
- Cover cap 980-A
- Securing pins BEF-980

PCB connector

980-W

Screw connection, wire entrance vertical to PCB





The PCB screw connector 980-W in 6.35 mm pitch is available with 2 to 32 poles. In spite of its small dimensions, it features large clearance and creepage distances.
This version is equipped with one solder pin per pole.

The conductor terminal, located vertical to the PCB, is of head contact design, whereby the screws and square washers are movably connected.
For easier connection, the non-rotably mounted square washers are automatically lifted when the screw is loosened.

Part Numbers

No. of poles	980-W	Length	Pcs
2	30.873.602	14,00	200
3	30.873.603	20,30	100
4	30.873.604	26,60	100
5	30.873.605	33,00	100
6	30.873.606	39,30	100
7	30.873.607	45,70	50
8	30.873.608	52,00	50
9	30.873.609	58,40	50
10	30.873.610	64,70	50
11	30.873.611	71,10	50
12	30.873.612	77,50	50
13	30.873.613	83,80	50
14	30.873.614	90,10	25
15	30.873.615	96,50	40
16	30.873.616	102,80	25
17	30.873.617	109,20	25
18	30.873.618	115,50	25
19	30.873.619	121,90	25
20	30.873.620	128,20	25
21	30.873.621	134,60	25
22	30.873.622	141,00	25
23	30.873.623	147,30	25
24	30.873.624	153,60	25
26	30.873.626	166,30	20
28	30.873.628	179,00	20
30	30.873.630	191,70	20
32	30.873.632	204,30	20

further number of poles on request

General Information

Pitch	6,35 mm
No. of poles	2 - 32

Technical Data

Clamping Range	*solid / flexible / AWG*
	0,25 - 1,5 mm² / 0,25 - 1 mm² / 22 - 18 AWG
Rated Cross Section	1 mm²
Wire Stripping Length	6 mm
Overvoltage Category	III
Pollution Severity Level	3
Rated Voltage	320 V
Rated Impulse Voltage	4 kV
Rated Insulation Voltage	250 V acc. to EN 60998-1
Rated Current	13,5 A
Hole in PCB	ø 1,6 mm
Torque	0,5 Nm
Other specifications	Two wires with same cross section can be connected per pole.

Material

Moulding	PA, grey, V-0
Comparative Tracking Index	CTI ≥ 600
Insulating Group	I
Temperature Range	-40°C up to 100°C
Pressure clamp	Tin plated brass
Screw	M3; zinc plated steel, blue passivated
Solder pin	0,8 x 1,0 mm; tin plated brass

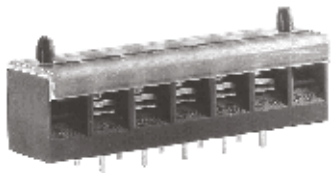
Approvals

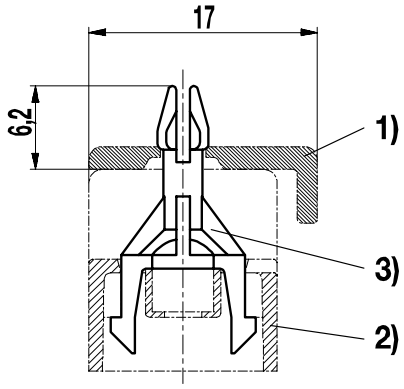
	Current	Voltage	Group	AWG	Nm
	7	300	B	22 - 18	0,51
	7	150	C	22 - 18	0,51
	7	300	B, D, E	22 - 18	0,51

Options / Accessories

- Consecutive numbering
- Special marking according to drawing
- Crosshead screws
- Cover cap 980-A
- Securing pins BEF-980

Cover cap
980-A





1) Cover cap
2) PCB connector
3) Securing pin

The 980-A cover cap is used as shock protection for series 980 PCB connectors. All cover caps have two ø 3 mm fastening holes.
They are fastened after wiring the strips with two securing pins BEF-980, which are pressed into the first and the last empty pole compartment of the PCB connector.

When ordering series 980 PCB connectors, the two empty pole compartments on the far left and the far right must be specified because terminal pole numbers are only allocated to connected pole compartments.

The number of poles and the cover cap sizes stated herein are already configured according to the number of empty pole compartments, i.e. a 3-pole cover cap is suitable for a 3-pole PCB connector equipped with two additional empty pole compartments.

General Information

No. of poles	1 - 30
Usable with	PCB connectors series 980

Material

Moulding	ABS, transparent
Temperature Range	-30°C up to 80°C

Options / Accessories

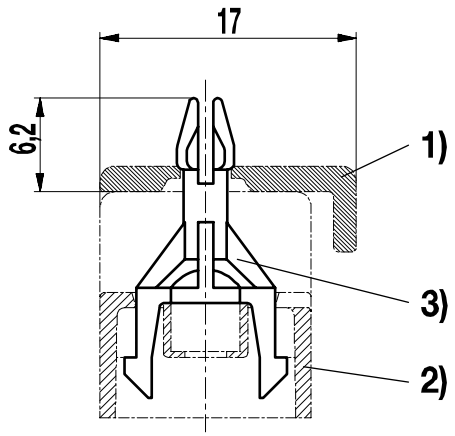
- Fixing holes at different places
- Securing pin BEF-980

Part Numbers

No. of poles	980-A	Length	Pcs
1	13.891.201	20,30	200
2	14.891.201	26,60	200
3	15.891.201	33,00	200
4	16.891.201	39,30	100
5	17.891.201	45,70	100
6	18.891.201	52,00	100
7	19.891.201	58,40	100
8	20.891.201	64,70	100
9	21.891.201	71,70	100
10	22.891.201	77,40	100
11	23.891.201	83,80	100
12	24.891.201	90,10	100
13	25.891.201	96,50	100
14	26.891.201	102,80	100
15	27.891.201	109,20	100
16	28.891.201	115,50	100
17	29.891.201	121,90	100
18	30.891.201	128,20	100
19	31.891.201	134,60	100
20	32.891.201	140,90	100

further number of poles on request

Securing pin
BEF-980



1) Cover cap
2) PCB connector
3) Securing pin

The securing pins BEF-980 are used to attach the cover caps onto series 980 PCB connectors.
Both pins are pressed into the far end empty pole compartments of the series 980 PCB connectors.

Part Numbers

No. of poles	BEF-980	Length	Pcs
1	10.476.007		1.000

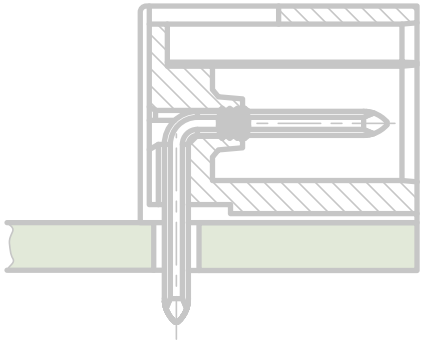
General Information

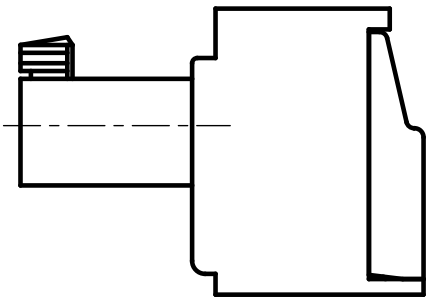
Usable with	PCB connectors series 980, cover cap 980-A

Material

Moulding	PA, grey
Temperature Range	-40°C up to 80°C

Plug connectors





This section lists our plug connectors with a pitch of 5,08 mm.

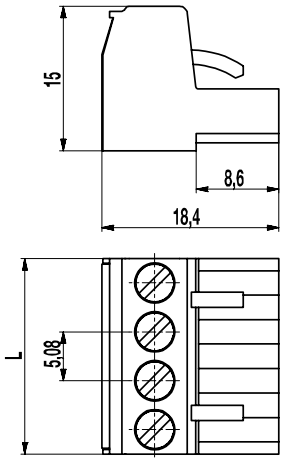
In combination with mating socket terminal strips and pin strips, plug connectors offer a variety of benefits:

- decentralized part/component assembly,
- prevention of wiring errors
- easy disconnection for service and maintenance purposes
- easy connection in confined space.

In addition to the screw version, the plug connector assortment also features solutions with tension spring technology. The screws of these plug connectors are secured against self-loosening.
Our plug connectors can also be mounted side-by-side without pole loss.

Series 121 plug connectors have standard grooves to accommodate coding keys. Plug connectors with such coded pin strips provide optimum protection against twisting and/or incorrect plugging.

Plug connector
121-A-111
Screw connection



The plug connector 121-A-111, with a pitch of 5,08 mm, is available in 2- to 24-pole design and can be mounted side-by-side without pole loss.

For each pole the plug connector has one trapezoidal coding slot in which the coding elements 120-K can be inserted. The wire entrance is parallel to the plug direction.
The screws are captive.

Part Numbers

No. of poles	121-A-111	Length	Pcs
2	10.808.102	10,16	200
3	10.808.103	15,24	200
4	10.808.104	20,32	100
5	10.808.105	25,40	100
6	10.808.106	30,48	100
7	10.808.107	35,56	50
8	10.808.108	40,64	50
9	10.808.109	45,72	50
10	10.808.110	50,80	50
11	10.808.111	55,88	50
12	10.808.112	60,96	50
13	10.808.113	66,04	50
14	10.808.114	71,12	50
15	10.808.115	76,20	50
16	10.808.116	81,28	50
17	10.808.117	86,36	50
18	10.808.118	91,44	50
19	10.808.119	96,52	50
20	10.808.120	101,60	50
21	10.808.121	106,68	50
22	10.808.122	111,76	50
23	10.808.123	116,84	50
24	10.808.124	121,92	50

General Information

Pitch	5,08 mm
No. of poles	2 - 24
Usable with	all pin strips of series 121

Technical Data

Clamping Range	*solid / flexible / AWG*		
	0,2 - 4 mm² / 0,2 - 2,5 mm² / 26 - 12 AWG		
Rated Cross Section	2,5 mm²		
Wire Stripping Length	7 mm ± 0,5 mm		
Overvoltage Category	III	III	II
Pollution Severity Level	3	2	2
Rated Voltage	250 V	320 V	630 V
Rated Impulse Voltage	4 kV	4 kV	4 kV
Rated Insulation Voltage	250 V acc. to EN 60998-1		
Rated Current	12 A		
Torque	0,5 Nm		

Material

Moulding	PA, grey, V-0
Comparative Tracking Index	CTI ≥ 600
Insulating Group	I
Temperature Range	-40°C up to 100°C
Terminal body	Nickel plated brass
Pressure clamp	Tin plated tin bronze
Screw	M3; zinc plated steel, blue passivated
Spring	Tin plated tin bronze

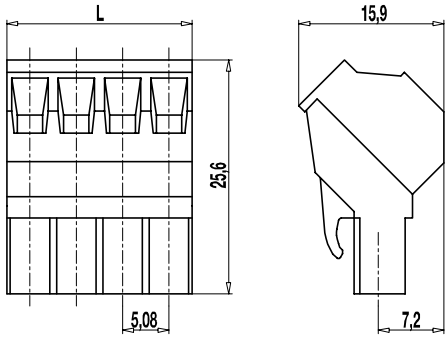
Approvals

	Current	Voltage	Group	AWG	Nm
	15	300	B	26 - 12	0,51
	10	300	D	26 - 12	0,51
	15	300	B	26 - 12	0,51
	10	300	D, E	26 - 12	0,51

Options / Accessories

- Consecutive numbering
- Special marking according to drawing
- Self-adhesive marking strip BST-5,08
- Pitch of 10,16 mm for larger clearance and creepage distances
- Coding elements 120-K
- Connectors equipped with coding elements on request
- Strain relief

Plug connector
121-C-111
Screw connection diagonal 45° to PCB



The plug connector 121-C-111 in a inclined version, with a pitch of 5,08 mm, is available in 2- to 24-pole design and can be mounted side-by-side without pole loss.

For each pole the plug connector has one trapezoidal coding slot in which the coding elements 120-K can be inserted.
The wire entrance is diagonal, i.e. in a 45° angle to the PC board. Therefore, this Plug connector is ideal for the assembly in the center of PCBs. The design of this Plug connector allows space-saving arrangement of consecutive rows of terminals.
The screws are captive.

Part Numbers

No. of poles	121-C-111	Length	Pcs
2	10.808.302	10,16	100
3	10.808.303	15,24	100
4	10.808.304	20,32	100
5	10.808.305	25,40	100
6	10.808.306	30,48	100
7	10.808.307	35,56	50
8	10.808.308	40,64	50
9	10.808.309	45,72	50
10	10.808.310	50,80	50
11	10.808.311	55,88	50
12	10.808.312	60,96	50
13	10.808.313	66,04	50
14	10.808.314	71,12	50
15	10.808.315	76,20	50
16	10.808.316	81,28	50
17	10.808.317	86,36	50
18	10.808.318	91,44	50
19	10.808.319	96,52	50
20	10.808.320	101,60	50
21	10.808.321	106,68	50
22	10.808.322	111,76	50
23	10.808.323	116,84	50
24	10.808.324	121,92	50

General Information

Pitch	5,08 mm
No. of poles	2 - 24
Usable with	all pin strips of series 121

Technical Data

Clamping Range	*solid / flexible / AWG*		
	0,2 - 4 mm² / 0,2 - 2,5 mm² / 26 - 12 AWG		
Rated Cross Section	2,5 mm²		
Wire Stripping Length	7 mm ± 0,5 mm		
Overvoltage Category	III	III	II
Pollution Severity Level	3	2	2
Rated Voltage	250 V	320 V	630 V
Rated Impulse Voltage	4 kV	4 kV	4 kV
Rated Insulation Voltage	250 V acc. to EN 60998-1		
Rated Current	12 A		
Torque	0,5 Nm		

Material

Moulding	PA, grey, V-0
Comparative Tracking Index	CTI ≥ 600
Insulating Group	I
Temperature Range	-40°C up to 100°C
Terminal body	Nickel plated brass
Pressure clamp	Tin plated tin bronze
Screw	M3; zinc plated steel, blue passivated
Spring	Tin plated tin bronze

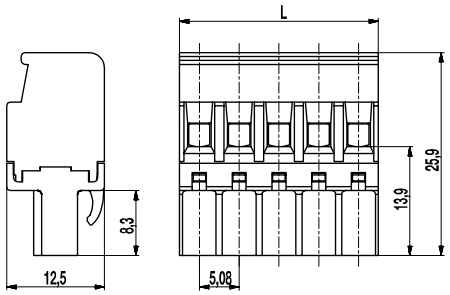
Approvals

	Current	Voltage	Group	AWG	Nm
	15	300	B	26 - 12	0,51
	10	300	D	26 - 12	0,51
	15	300	B	26 - 12	0,51
	10	300	D, E	26 - 12	0,51

Options / Accessories

- Consecutive numbering
- Special marking according to drawing
- Self-adhesive marking strip BST-5,08
- Pitch of 10,16 mm for larger clearance and creepage distances
- Coding elements 120-K
- Connectors equipped with coding elements on request
- Strain relief

Plug connector
121-D-111
Screw connection, backside latching hooks



The plug connector 121-D-111, with a pitch of 5,08 mm, is available in 2- to 24-pole design and can be mounted side-by-side without pole loss.

On version 121-D-111, the wire entrance is located opposite to the latching hook side; on version 121-D-121, it is located on the same side. Plugging the plug connector on pin strips of series 121 therefore results in inverted plug-in configurations.

For each pole the plug connector has one trapezoidal coding slot in which the coding elements 120-K can be inserted. The wire entrance is vertical to the plug direction.
The screws are captive.

Part Numbers

No. of poles	121-D-111	Length	Pcs
2	10.808.602	10,16	100
3	10.808.603	15,24	100
4	10.808.604	20,32	100
5	10.808.605	25,40	100
6	10.808.606	30,48	100
7	10.808.607	35,56	50
8	10.808.608	40,64	50
9	10.808.609	45,72	50
10	10.808.610	50,80	50
11	10.808.611	55,88	50
12	10.808.612	60,96	100
13	10.808.613	66,04	50
14	10.808.614	71,12	50
15	10.808.615	76,20	50
16	10.808.616	81,28	50
17	10.808.617	86,36	50
18	10.808.618	91,44	50
19	10.808.619	96,52	50
20	10.808.620	101,60	50
21	10.808.621	106,68	50
22	10.808.622	111,76	50
23	10.808.623	116,84	50
24	10.808.624	121,92	50

General Information

Pitch	5,08 mm
No. of poles	2 - 24
Usable with	all pin strips of series 121

Technical Data

Clamping Range	*solid / flexible / AWG*		
	0,2 - 4 mm² / 0,2 - 2,5 mm² / 26 - 12 AWG		
Rated Cross Section	2,5 mm²		
Wire Stripping Length	7 mm ± 0,5 mm		
Overvoltage Category	III	III	II
Pollution Severity Level	3	2	2
Rated Voltage	250 V	320 V	630 V
Rated Impulse Voltage	4 kV	4 kV	4 kV
Rated Insulation Voltage	250 V acc. to EN 60998-1		
Rated Current	12 A		
Torque	0,5 Nm		

Material

Moulding	PA, grey, V-0
Comparative Tracking Index	CTI ≥ 600
Insulating Group	I
Temperature Range	-40°C up to 100°C
Terminal body	Nickel plated brass
Pressure clamp	Tin plated tin bronze
Screw	M3; zinc plated steel, blue passivated
Spring	Tin plated tin bronze

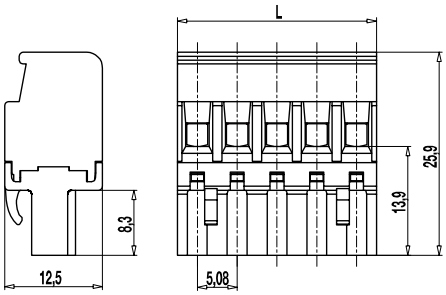
Approvals

	Current	Voltage	Group	AWG	Nm
	15	300	B	26 - 12	0,51
	10	300	D	26 - 12	0,51
	15	300	B	26 - 12	0,51
	10	300	D, E	26 - 12	0,51

Options / Accessories

- Consecutive numbering
- Special marking according to drawing
- Self-adhesive marking strip BST-5,08
- Pitch of 10,16 mm for larger clearance and creepage distances
- Coding elements 120-K
- Connectors equipped with coding elements on request
- Strain relief

Plug connector
121-D-121
Screw connection



The plug connector 121-D-121, with a pitch of 5,08 mm, is available in 2- to 24-pole design and can be mounted side-by-side without pole loss.

On version 121-D-111, the wire entrance is located opposite to the latching hook side; on version 121-D-121, it is located on the same side. Plugging the plug connector on pin strips of series 121 therefore results in inverted plug-in configurations.

For each pole the plug connector has one trapezoidal coding slot in which the coding elements 120-K can be inserted. The wire entrance is vertical to the plug direction.
The screws are captive.

Part Numbers

No. of poles	121-D-121	Length	Pcs
2	20.808.602	10,16	100
3	20.808.603	15,24	100
4	20.808.604	20,32	100
5	20.808.605	25,40	100
6	20.808.606	30,48	100
7	20.808.607	35,56	50
8	20.808.608	40,64	50
9	20.808.609	45,72	50
10	20.808.610	50,80	50
11	20.808.611	55,88	50
12	20.808.612	60,96	100
13	20.808.613	66,04	50
14	20.808.614	71,12	50
15	20.808.615	76,20	50
16	20.808.616	81,28	50
17	20.808.617	86,36	50
18	20.808.618	91,44	50
19	20.808.619	96,52	50
20	20.808.620	101,60	50
21	20.808.621	106,68	50
22	20.808.622	111,76	50
23	20.808.623	116,84	50
24	20.808.624	121,92	50

General Information

Pitch	5,08 mm
No. of poles	2 - 24
Usable with	all pin strips of series 121

Technical Data

Clamping Range	*solid / flexible / AWG*		
	0,2 - 4 mm² / 0,2 - 2,5 mm² / 26 - 12 AWG		
Rated Cross Section	2,5 mm²		
Wire Stripping Length	7 mm ± 0,5 mm		
Overvoltage Category	III	III	II
Pollution Severity Level	3	2	2
Rated Voltage	250 V	320 V	630 V
Rated Impulse Voltage	4 kV	4 kV	4 kV
Rated Insulation Voltage	250 V acc. to EN 60998-1		
Rated Current	12 A		
Torque	0,5 Nm		

Material

Moulding	PA, grey, V-0
Comparative Tracking Index	CTI ≥ 600
Insulating Group	I
Temperature Range	-40°C up to 100°C
Terminal body	Nickel plated brass
Pressure clamp	Tin plated tin bronze
Screw	M3; zinc plated steel, blue passivated
Spring	Tin plated tin bronze

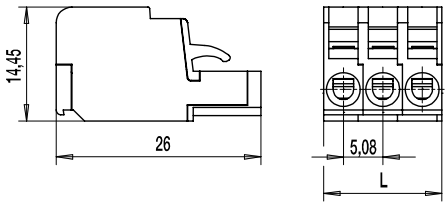
Approvals

	Current	Voltage	Group	AWG	Nm
	15	300	B	26 - 12	0,51
	10	300	D	26 - 12	0,51
	15	300	B	26 - 12	0,51
	10	300	D, E	26 - 12	0,51

Options / Accessories

- Consecutive numbering
- Special marking according to drawing
- Self-adhesive marking strip BST-5,08
- Pitch of 10,16 mm for larger clearance and creepage distances
- Coding elements 120-K
- Connectors equipped with coding elements on request
- Strain relief

Plug connector
121-F-111
Spring clamp connection



The plug connector 121-F-111 series with screwless terminals complements our "CONECTA"-Series.
The rated cross-section of 2,5 mm² is geared towards screw-connector variants. This plug connector can be used with single-core copper conductors and fine-stranded wires (2,5 mm²), but also with pin cable sockets or crimped ferrules. For crimped ferrules, the cross-section must be reduced accordingly. All other rated data is identical with the screw-connector variants.

Test ports for ø 2 mm or ø 2,3 mm test plugs or for spring test pins are accessible from the upper side of the clamp. The plug connector consists of individual poles and can be manufactured to any required pole configuration at our factory.

For each pole the plug connector has one trapezoidal coding groove in which the coding elements 120-K can be inserted.

The plug connector can be operated by either a standard 3 mm blade screwdriver, terminal pliers or the built-in pusher, see 121-F-211.

Part Numbers

No. of poles	121-F-111	Length	Pcs
2	12.808.952	10,16	200
3	13.808.952	15,24	200
4	14.808.952	20,32	100
5	15.808.952	25,40	100
6	16.808.952	30,48	100
7	17.808.952	35,56	50
8	18.808.952	40,64	50
9	19.808.952	45,72	50
10	20.808.952	50,08	50
11	21.808.952	55,88	50
12	22.808.952	60,69	50

General Information

Pitch	5,08 mm
No. of poles	2 - 12
Usable with	all pin strips of series 121

Technical Data

Clamping Range	*solid / flexible / AWG*
	0,2 - 4 mm² / 0,2 - 2,5 mm² / 24 - 12 AWG
Rated Cross Section	2,5 mm²
Wire Stripping Length	8,5 mm ± 0,5 mm
Overvoltage Category	II
Pollution Severity Level	2
Rated Voltage	320 V
Rated Impulse Voltage	2,5 kV
Rated Insulation Voltage	250 V acc. to EN 60998-1
Rated Current	12 A

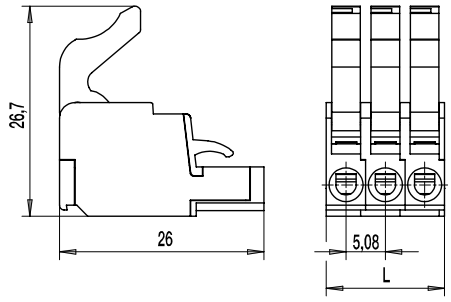
Material

Moulding	PA, grey, V-0
Comparative Tracking Index	CTI ≥ 600
Insulating Group	I
Temperature Range	-40°C up to 100°C
Pressure clamp	Copper alloy, tin plated
Tension spring	Stainless strip steel
Spring	Copper alloy, tin plated

Options / Accessories

- Consecutive numbering
- Special marking according to drawing
- Self-adhesive marking strip BST-5,08
- Coding elements 120-K
- Connectors equipped with coding elements on request
- Strain relief
- Terminal pliers 120-F

Plug connector
121-F-211
Spring clamp connection, with pusher



The plug connector 121-F-211 series with screwless terminals complements our "CONECTA"-Series.
The rated cross-section of 2,5 mm² is geared towards screw-connector variants. This plug connector can be used with single-core copper conductors and fine-stranded wires (2,5 mm²), but also with pin cable sockets or crimped ferrules. For crimped ferrules, the cross-section must be reduced accordingly. All other rated data is identical with the screw-connector variants.

Test ports for ø 2 mm or ø 2,3 mm test plugs or for spring test pins are accessible from the upper side of the clamp. The plug connector consists of individual poles and can be manufactured to any required pole configuration at our factory.

For each pole the plug connector has one trapezoidal coding groove in which the coding elements 120-K can be inserted.

The plug connector is operated by the built-in pusher.

Part Numbers

No. of poles	121-F-211	Length	Pcs
2	12.808.955	10,16	200
3	13.808.955	15,24	200
4	14.808.955	20,32	100
5	15.808.955	25,40	100
6	16.808.955	30,48	100
7	17.808.955	35,56	50
8	18.808.955	40,64	50
9	19.808.955	45,72	50
10	20.808.955	50,08	50
11	21.808.955	55,88	50
12	22.808.955	60,69	50

General Information

Pitch	5,08 mm
No. of poles	2 - 12
Usable with	all pin strips series 121

Technical Data

Clamping Range	*solid / flexible / AWG* 0,2 - 4 mm² / 0,2 - 2,5 mm² / 24 - 12 AWG
Rated Cross Section	2,5 mm²
Wire Stripping Length	8,5 mm ± 0,5 mm
Overvoltage Category	II
Pollution Severity Level	2
Rated Voltage	320 V
Rated Impulse Voltage	2,5 kV
Rated Insulation Voltage	250 V acc. to EN 60998-1
Rated Current	12 A

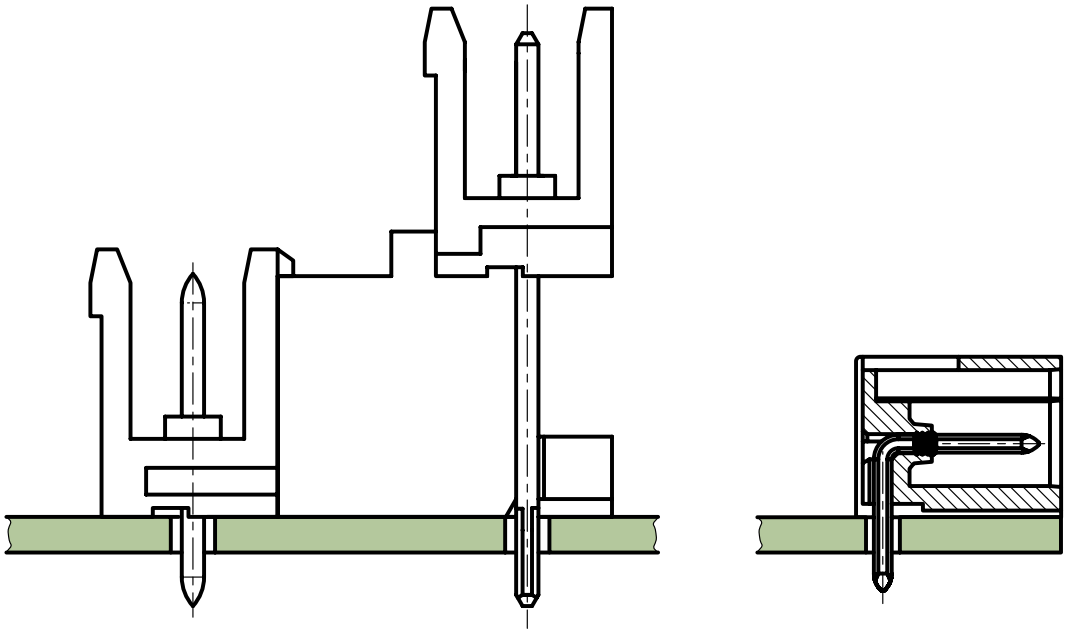
Material

Moulding	PA, grey, V-0
Comparative Tracking Index	CTI ≥ 600
Insulating Group	I
Temperature Range	-40°C up to 100°C
Pressure clamp	Copper alloy, tin plated
Tension spring	Stainless strip steel
Spring	Copper alloy, tin plated

Options / Accessories

- Consecutive numbering
- Special marking according to drawing
- Self-adhesive marking strip BST-5,08
- Coding elements 120-K
- Connectors equipped with coding elements on request
- Strain relief

Pin strips



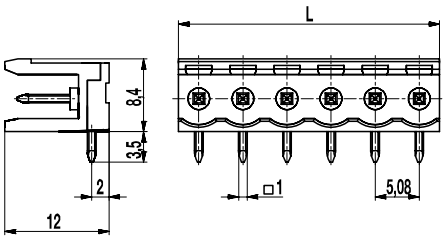
Here, you can find the male pin strips of series 121 for the female socket terminal strips.
Depending on their design, pin strips are available with 2 to 24 poles, as flange versions with 2 to 22 poles and as two-tier versions with 4 to 48 poles.

The user can choose from different designs with perpendicular or parallel plug direction to the PC board.

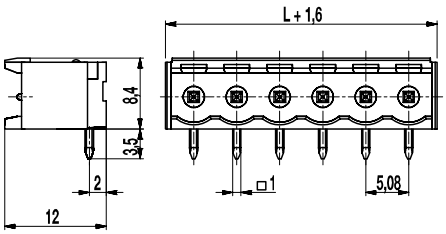
Series 121 pin strips as well as socket terminal strips feature grooves to accomodate coding elements. Laterally attached dovetail expansions on the housings reliably prevent offset plugging of the socket terminal strips.

Two-tier versions widen the range of applications considerably.

Pin strip
121-M-111/-211
Plug-in direction parallel to PCB



121-M-111



121-M-211

The pin strips 121-M-111 und 121-M-211 with a pitch of 5,08 mm are available in 2- to 24-pole design.

The ..-M-111 version is a pin strip without side walls and can be mounted side-by-side without pole loss. The ..-M-211 version is a pin strip with side walls. For both versions, the plug direction for mating plug connectors is parallel to the PCB.

For each pole, the pin strip has one trapezoidal coding slot in which the coding elements 120-K can be inserted.

General Information

Pitch	5,08 mm
No. of poles	2 - 24
Usable with	all plug connectors of series 121
Additonal Information	Ordering information: ..-111: without side wall ..-211: with side wall, pottable

Technical Data

Overvoltage Category	III	III	II
Pollution Severity Level	3	2	2
Rated Voltage	250 V	320 V	630 V
Rated Impulse Voltage	4 kV	4 kV	4 kV
Rated Insulation Voltage	250 V acc. to EN 60998-1		
Rated Current	12 A		
Hole in PCB	ø 1,4 mm		

Material

Moulding	PA, grey, V-0
Comparative Tracking Index	CTI ≥ 600
Insulating Group	I
Temperature Range	-40°C up to 100°C
Solder pin	1,0 x 1,0 mm; tin plated brass

Approvals

	Current	Voltage	Group	AWG	Nm
	15	300	B		
	10	300	D		
	15	300	B		
	10	300	D, E		

Part Numbers

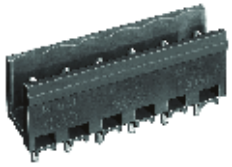
No. of poles	121-M-111	121-M-211	Length	Pcs
2	10.806.102	10.806.126	10,16	200
3	10.806.103	10.806.127	15,24	200
4	10.806.104	10.806.128	20,32	100
5	10.806.105	10.806.129	25,40	100
6	10.806.106	10.806.130	30,48	100
7	10.806.107	10.806.131	35,56	50
8	10.806.108	10.806.132	40,64	50
9	10.806.109	10.806.133	45,72	50
10	10.806.110	10.806.134	50,80	50
11	10.806.111	10.806.135	55,88	50
12	10.806.112	10.806.136	60,96	50

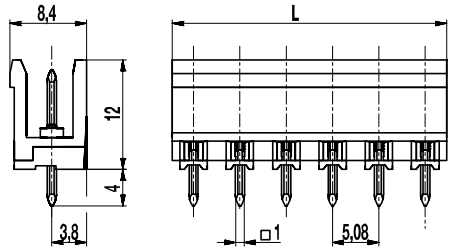
further number of poles on request

Options / Accessories

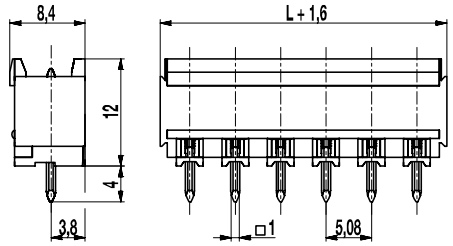
- Consecutive numbering
- Special marking according to drawing
- Self-adhesive marking strip BST-5,08
- Pitch of 10,16 mm for larger clearance and creepage distances
- Other P.C. pin lengths
- Coding elements 120-K
- Connectors equipped with coding elements on request

Pin strip
121-M-121/-221
Plug-in direction vertical to PCB





121-M-121



121-M-221

The pin strips 121-M-121 and 121-M-221 with a pitch of 5,08 mm are available in 2- to 24-pole design.

The ..-M-121 version is a pin strip without side walls and can be mounted side-by-side without pole loss. The ..-M-221 version is a pin strip with side walls. For both versions, the plug direction for mating plug connectors is vertical to the PCB.

For each pole, the pin strip has one trapezoidal coding slot in which the coding elements 120-K can be inserted.

Part Numbers

No. of poles	121-M-121	121-M-221	Length	Pcs
2	20.806.102	20.806.126	10,16	200
3	20.806.103	20.806.127	15,24	200
4	20.806.104	20.806.128	20,32	100
5	20.806.105	20.806.129	25,40	100
6	20.806.106	20.806.130	30,48	100
7	20.806.107	20.806.131	35,56	50
8	20.806.108	20.806.132	40,64	50
9	20.806.109	20.806.133	45,72	50
10	20.806.110	20.806.134	50,80	50
11	20.806.111	20.806.135	55,88	50
12	20.806.112	20.806.136	60,96	50

further number of poles on request

General Information

Pitch	5,08 mm
No. of poles	2 - 24
Usable with	all plug connectors of series 121
Additonal Information	Ordering information: ..-121: without side wall ..-221: with side wall, pottable

Technical Data

Overvoltage Category	III	III	II
Pollution Severity Level	3	2	2
Rated Voltage	250 V	320 V	630 V
Rated Impulse Voltage	4 kV	4 kV	4 kV
Rated Insulation Voltage	250 V acc. to EN 60998-1		
Rated Current	12 A		
Hole in PCB	ø 1,4 mm		

Material

Moulding	PA, grey, V-0
Comparative Tracking Index	CTI ≥ 600
Insulating Group	I
Temperature Range	-40°C up to 100°C
Solder pin	1,0 x 1,0 mm; tin plated brass

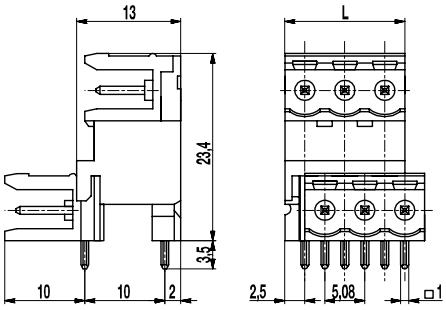
Approvals

	Current	Voltage	Group	AWG	Nm
	15	300	B		
	10	300	D		
	15	300	B		
	10	300	D, E		

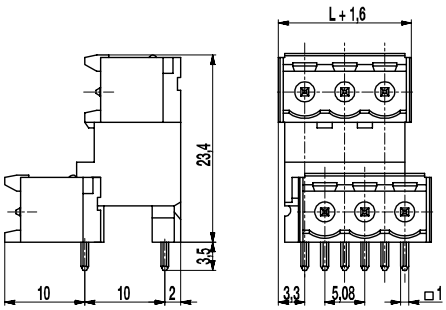
Options / Accessories

- Consecutive numbering
- Special marking according to drawing
- Self-adhesive marking strip BST-5,08
- Pitch of 10,16 mm for larger clearance and creepage distances
- Other P.C. pin lengths
- Coding elements 120-K
- Connectors equipped with coding elements on request

Pin strip
121-M-151/-251
Plug-in direction parallel to PCB, two-tier version



121-M-151



121-M-251

The pin strips 121-M-151 und 121-M-251, as two-tier version with a pitch of 5,08 mm are available in 4- to 48-pole design.

The ..-M-151 version is a pin strip without side walls and can be mounted side-by-side without pole loss. The ..-M-251 version is a pin strip with side walls. For both versions, the plug direction for mating plug connectors is parallel to the PCB.

For each pole, the pin strip has one trapezoidal coding slot in which the coding elements 120-K can be inserted.

Part Numbers

No. of poles	121-M-151	121-M-251	Length	Pcs
4	10.806.152	10.806.176	20,32	100
6	10.806.153	10.806.177	30,48	100
8	10.806.154	10.806.178	40,64	50
10	10.806.155	10.806.179	50,80	50
12	10.806.156	10.806.180	60,96	50
14	10.806.157	10.806.181	71,12	50
16	10.806.158	10.806.182	81,28	25
18	10.806.159	10.806.183	91,44	25
20	10.806.160	10.806.184	101,60	25
22	10.806.161	10.806.185	111,76	25
24	10.806.162	10.806.186	121,92	25

further number of poles on request

General Information

Pitch	5,08 mm
No. of poles	4 - 48
Usable with	all plug connectors of series 121
Additonal Information	Ordering information: ..-151: without side wall ..-251: with side wall

Technical Data

Overvoltage Category	III	III	II
Pollution Severity Level	3	2	2
Rated Voltage	250 V	320 V	630 V
Rated Impulse Voltage	4 kV	4 kV	4 kV
Rated Insulation Voltage	250 V acc. to EN 60998-1		
Rated Current	12 A		
Hole in PCB	ø 1,4 mm		

Material

Moulding	PA, grey, V-0
Comparative Tracking Index	CTI ≥ 600
Insulating Group	I
Temperature Range	-40°C up to 100°C
Solder pin	1,0 x 1,0 mm; tin plated brass

Approvals

	Current	Voltage	Group	AWG	Nm
	15	300	B		
	10	300	D		
	15	300	B		
	10	300	D, E		

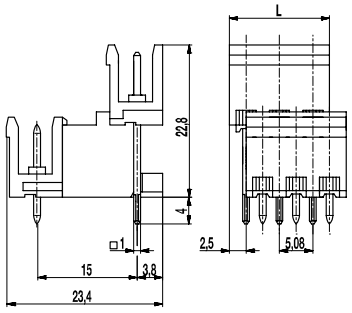
Options / Accessories

- Consecutive numbering
- Special marking according to drawing
- Self-adhesive marking strip BST-5,08
- Pitch of 10,16 mm for larger clearance and creepage distances
- Coding elements 120-K
- Connectors equipped with coding elements on request
- Two-tier version with front pin strip offset to the left
- Special arrangements of front- and rear row of the floor version

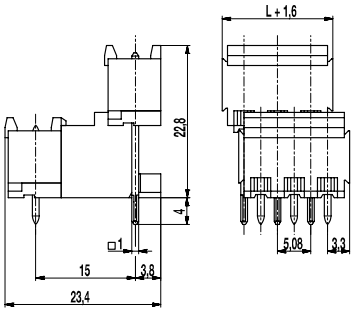
Pin strip
121-M-161/-261
Plug-in direction vertical to PCB, two-tier version

conecta®

RoHS COMPLIANT



121-M-161



121-M-261

The pin strips 121-M-161 und 121-M-261, as two-tier versions with a pitch of 5,08 mm are available in 4- to 48-pole design.

The ..-M-161 version is a pin strip without side walls and can be mounted side-by-side without pole loss. The ..-M-261 version is a pin strip with side walls. For both versions, the plug direction for mating plug connectors is vertical to the PCB.

For each pole, the pin strip has one trapezoidal coding slot in which the coding elements 120-K can be inserted.

Part Numbers

No. of poles	121-M-161	121-M-261	Length	Pcs
4	30.806.152	30.806.176	20,32	100
6	30.806.153	30.806.177	30,48	100
8	30.806.154	30.806.178	40,64	50
10	30.806.155	30.806.179	50,80	50
12	30.806.156	30.806.180	60,96	50
14	30.806.157	30.806.181	71,12	50
16	30.806.158	30.806.182	81,28	25
18	30.806.159	30.806.183	91,44	25
20	30.806.160	30.806.184	101,60	25
22	30.806.161	30.806.185	111,76	25
24	30.806.162	30.806.186	121,92	25

further number of poles on request

General Information

Pitch	5,08 mm
No. of poles	4 - 48
Usable with	all plug connectors of series 121
Additonal Information	Ordering information: ..-161: without side wall ..-261: with side wall, pottable

Technical Data

Overvoltage Category	III	III	II
Pollution Severity Level	3	2	2
Rated Voltage	250 V	320 V	630 V
Rated Impulse Voltage	4 kV	4 kV	4 kV
Rated Insulation Voltage	250 V acc. to EN 60998-1		
Rated Current	12 A		
Hole in PCB	ø 1,4 mm		

Material

Moulding	PA, grey, V-0
Comparative Tracking Index	CTI ≥ 600
Insulating Group	I
Temperature Range	-40°C up to 100°C
Solder pin	1,0 x 1,0 mm; tin plated brass

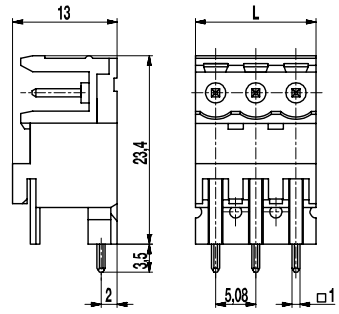
Approvals

	Current	Voltage	Group	AWG	Nm
	15	300	B		
	10	300	D		
	15	300	B		
	10	300	D, E		

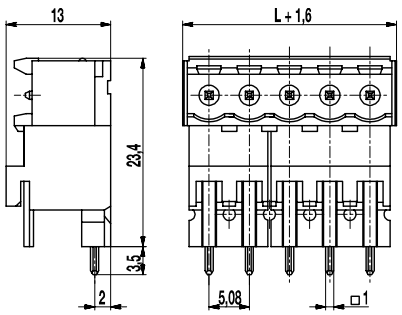
Options / Accessories

- Consecutive numbering
- Special marking according to drawing
- Self-adhesive marking strip BST-5,08
- Pitch of 10,16 mm for larger clearance and creepage distances
- Coding elements 120-K
- Connectors equipped with coding elements on request
- Two-tier version with front pin strip offset to the left
- Special arrangements of front- and rear row of the floor version

Pin strip
121-M-181/-281
Plug-in direction parallel to PCB, tall version



121-M-181



121-M-281

The pin strips 121-M-181 und 121-M-281, tall version with a pitch of 5,08 mm are available in 2- to 24-pole design.

The ..-M-181 version is a pin strip without side walls and can be mounted side-by-side without pole loss. The ..-M-281 version is a pin strip with side walls. For both versions, the plug direction for mating plug connectors is parallel to the PCB.

For each pole, the pin strip has one trapezoidal coding slot in which the coding elements 120-K can be inserted.

Part Numbers

No. of poles	121-M-181	121-M-281	Length	Pcs
2	25.806.152	25.806.176	10,16	200
3	25.806.153	25.806.177	15,24	100
4	25.806.154	25.806.178	20,32	100
5	25.806.155	25.806.179	25,40	100
6	25.806.156	25.806.180	30,48	100
7	25.806.157	25.806.181	35,56	50
8	25.806.158	25.806.182	40,64	50
9	25.806.159	25.806.183	45,72	50
10	25.806.160	25.806.184	50,80	50
11	25.806.161	25.806.185	55,88	50
12	25.806.162	25.806.186	60,96	50

further number of poles on request

General Information

Pitch	5,08 mm
No. of poles	2 - 24
Usable with	all plug connectors of series 121
Additonal Information	Ordering information: ..-181: without side wall ..-281: with side wall

Technical Data

Overvoltage Category	III	III	II
Pollution Severity Level	3	2	2
Rated Voltage	250 V	320 V	630 V
Rated Impulse Voltage	4 kV	4 kV	4 kV
Rated Insulation Voltage	250 V acc. to EN 60998-1		
Rated Current	12 A		
Hole in PCB	ø 1,4 mm		

Material

Moulding	PA, grey, V-0
Comparative Tracking Index	CTI ≥ 600
Insulating Group	I
Temperature Range	-40°C up to 100°C
Solder pin	1,0 x 1,0 mm; tin plated brass

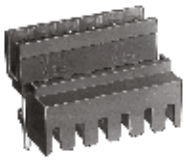
Approvals

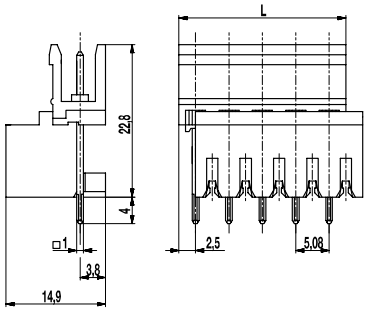
	Current	Voltage	Group	AWG	Nm
	15	300	B		
	10	300	D		
	15	300	B		
	10	300	D, E		

Options / Accessories

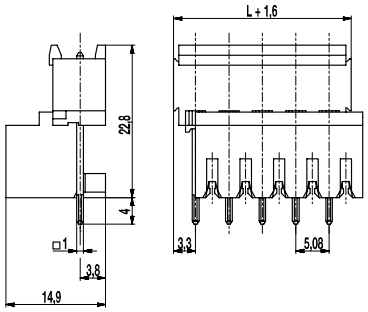
- Consecutive numbering
- Special marking according to drawing
- Self-adhesive marking strip BST-5,08
- Pitch of 10,16 mm for larger clearance and creepage distances
- Coding elements 120-K
- Connectors equipped with coding elements on request

Pin strip
121-M-191/-291
Plug-in direction vertical to PCB, tall version





121-M-191



121-M-291

The pin strips 121-M-191 und 121-M-291 as tall version with a pitch of 5,08 mm are available in 2- to 24-pole design.

The ..-M-191 version is a pin strip without side walls and can be mounted side-by-side without pole loss. The ..-M-291 version is a pin strip with side walls. For both versions, the plug direction for mating plug connectors is vertical to the PCB.

For each pole, the pin strip has one trapezoidal coding slot in which the coding elements 120-K can be inserted.

Part Numbers

No. of poles	121-M-191	120-M-291	Length	Pcs
2	25.806.102	25.806.126	10,16	200
3	25.806.103	25.806.127	15,24	100
4	25.806.104	25.806.128	20,32	100
5	25.806.105	25.806.129	25,40	100
6	25.806.106	25.806.130	30,48	100
7	25.806.107	25.806.131	35,56	50
8	25.806.108	25.806.132	40,64	50
9	25.806.109	25.806.133	45,72	50
10	25.806.110	25.806.134	50,80	50
11	25.806.111	25.806.135	55,88	50
12	25.806.112	25.806.136	60,96	50

further number of poles on request

General Information

Pitch	5,08 mm
No. of poles	2 - 24
Usable with	all plug connectors of series 121
Additonal Information	Ordering information: ..-191: without side wall ..-291: with side wall

Technical Data

Overvoltage Category	III	III	II
Pollution Severity Level	3	2	2
Rated Voltage	250 V	320 V	630 V
Rated Impulse Voltage	4 kV	4 kV	4 kV
Rated Insulation Voltage	250 V acc. to EN 60998-1		
Rated Current	12 A		
Hole in PCB	ø 1,4 mm		

Material

Moulding	PA, grey, V-0
Comparative Tracking Index	CTI ≥ 600
Insulating Group	I
Temperature Range	-40°C up to 100°C
Solder pin	1,0 x 1,0 mm; tin plated brass

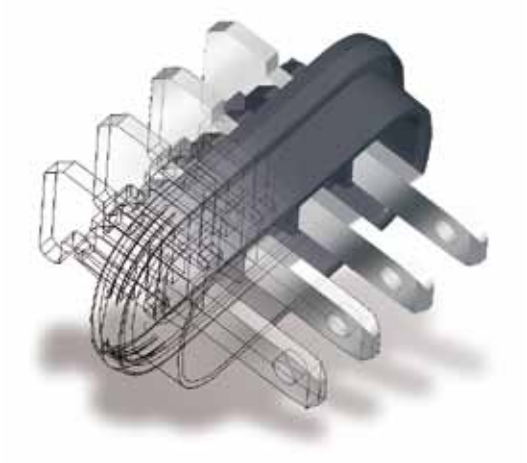
Approvals

	Current	Voltage	Group	AWG	Nm
	15	300	B		
	10	300	D		
	15	300	B		
	10	300	D, E		

Options / Accessories

- Consecutive numbering
- Special marking according to drawing
- Self-adhesive marking strip BST-5,08
- Pitch of 10,16 mm for larger clearance and creepage distances
- Coding elements 120-K
- Connectors equipped with coding elements on request

Looking for a Customer Designed Solution?



„Sealed“

With a pitch of 3.5 mm, this insert with four tabs 2.8 x 0.8 mm was designed to seal the contacts, for an application which required the protection class IP54.

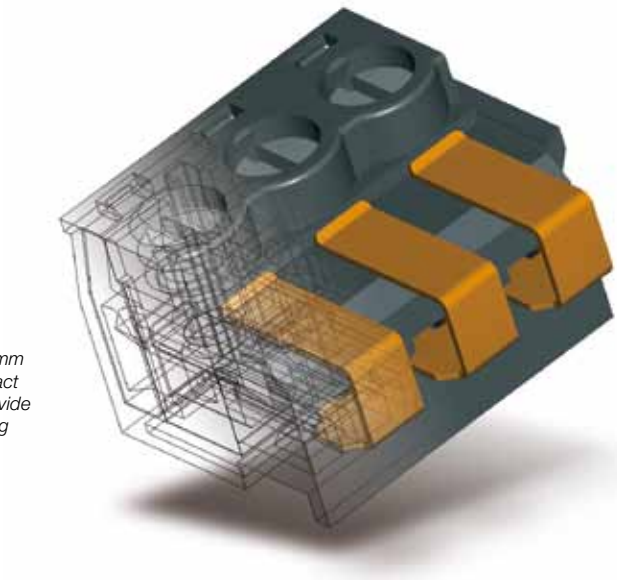
„Top“

Version of a terminal our series 970 in 5 mm pitch.
In order to achieve a distance of 100 mm from the PCB, a housing was constructed, which not only does protect the pins but also positions them in a special arrangement. In the terminal area are also placed elongated ribs.

Our Product Information Centre will assist you with every technical inquiry.

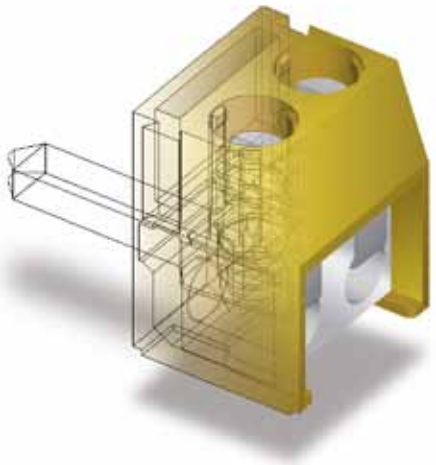
- Please, call us under +49 6181 105-151.
- Contact us via e-mail at products@wecogroup.com.
- You want us to pay you a visit? We are pleased to arrange an appointment.
- You would prefer a visit in Hanau?
  Of course, you are welcomed anytime.

We are looking forward to your call.



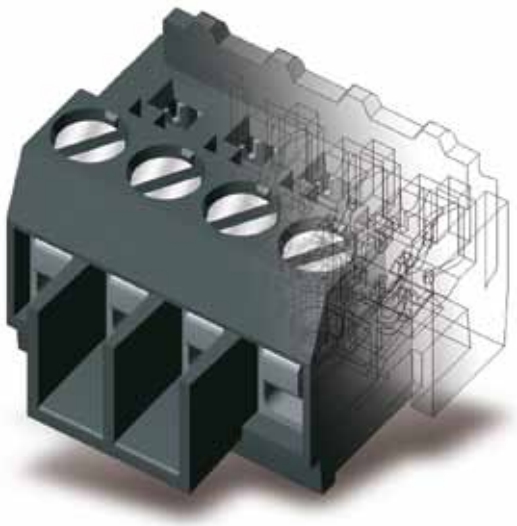
„Well Contacted“

This plug connector with the pitch of 5 mm is designed with outer gold-plated contact surfaces. Additionally, the side walls provide ribs for receiving a corresponding locking hook.



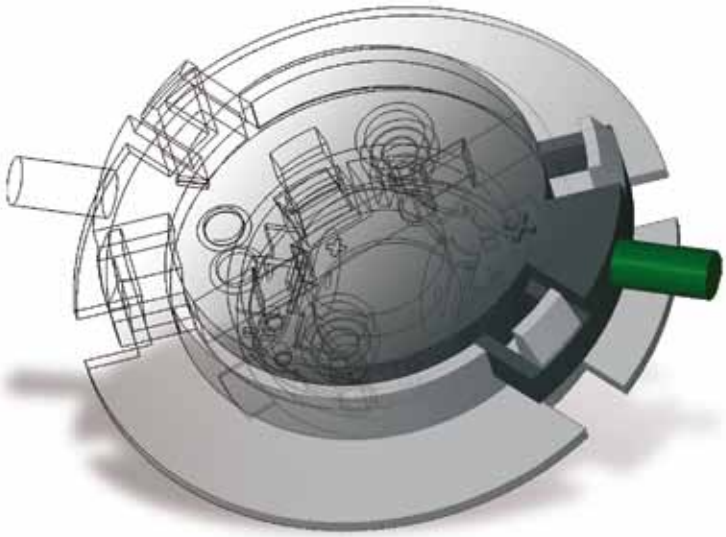
„Stable bridged“

Terminal connector in 5 mm pitch with one potential but two screw connections and a plug connector at the back. This allows a connection to other terminals.
For the customer the housing was made with buttercup yellow material (similar to RAL 1021).



„Long-ribbed“

A plug connector with a pitch of 3.5 mm, with a anti-twist peg and two extra-long guiding ribs.
In the plug connection area, tabs and round plug pins could be contacted.

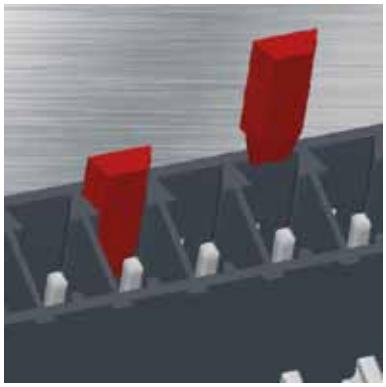


„Solar“

Draft for a photovoltaic-module connection.

Accessories / Options

Coding elements



This coding element is applicable for the Conecta Series of 110, 120, 121 and 122.
For coding, all pin strips and plug connectors of this series are equipped with a trapezoidal slot per pole into which the coding elements can easily be inserted.
With this, simple solution error free plugging is ensured.
In the standard version the coding elements have a bright red colour, making them clearly visible in mated condition. Alternatively, they are also available in light grey. 12 of each coding element are related to a strip.
The coding elements are not reflow solderable and for SMD & THR products they can only be used after the soldering process.

Part number	Type	Pcs
20.496.025	120-K/12 KODIEREL.	120
17.496.025	120-K/12 KODIEREL. LIGHTGREY	120

Marking strips

These marking strips are made of polyester with black print on a silver background. They have a scratch resistant mylar surface.
Numbering begins with 1, the specified pole number is the last digit respectively.
The marking strips withstand printed circuit board cleaning agents containing water and soap, freon, fluorinated or chlorinated ingredients; they are not suitable for reflow soldering procedures.
They are supplied on adhesive cards each containing ten strips.

Part number	Type	Pitch	Length (L)	Width (a)	Pcs
24.499.006	BST-5,08/12	5,08 mm	61 mm	3,5 mm	100
24.499.007	BST-5,08/32	5,08 mm	162 mm	3,5 mm	100

Marking

Alternatively to the self-adhesive marking strips, we offer a special marking to meet almost any special and individual marking requirement. The printing is carried out on pre-designed marking areas.
Depending upon the housing colour, the numbers are imprinted in white or in black.
Other printing colours are possible on request.

Accessories / Options

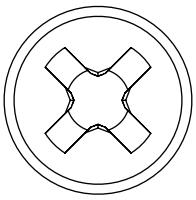
Colours

WECO offers a wide range of housing colours.
Besides our standard housing colours, you can choose between many other colours.
Please contact us for further information.

Screws

Our standard products are fitted with slotted screws.
On enquiry and customer‘s request, we also offer screws with Philips/Pozidrive or +/- screw heads.

Further materials:
Standard screws are made of steel; also screws out of various materials, e.g. brass, are available on request.



Packaging: Card board boxes, Tape-on-Reel, Magazines

According to standard, we pack our products in pollution free folding boxes from card board and from corrugated board. Besides, we offer transfer tubes (magazines) as packing for the use with feeders and dispensers for automated insertion machinery. Transfer tubes offer the advantage of a better transportation facility and a simple withdrawal over the cardboards.

Our SMD and THR products are packed in “Tape-on-Reel” for the automated assembly process in pick and place machines. Please find data sheet information about products packed on Tape-on-Reel on our website.

Technical Information

Rating of clearance and creepage distances according to DIN EN 60664-1 (VDE 0110-1)

The rating of clearance and creepage distances depends on the expected electrical surge, the characteristic values of the electronic protection measures as well as the contamination at the place of installation.

Clearanece distances are dimensioned in accordance with the rated impulse voltage table F.1, which results out of the overvoltage category and phase-to-earth voltage.

The minimum clearance in air is stated at altitudes of less than 2000m above sea level and ascertained in accordance with the impulse voltage and the contamination level, table 2.

Creepage distances are measured by the operating voltage, the characteristic of the insulants (CTI value), the expected contamination level as well as the preventive measures against contamination.

Basis of the creepage distance is the rated voltage derived from the operating and / or system voltage.

The minimum creepage distance (depending on the respective degree of contamination) are assigned to the rated voltage, see table F.4.

Overvoltage categories

Overvoltage category IV:

Electrical equipments for the use at the connection point of the installation e.g. electricity meter and primary over-current protection devices.

Overvoltage category III:

Electrical equipment in firm installations and for such cases in which special demands are made against the reliability and the availability of the electrical equipment, e.g. switches in firm installations and devices for industrial use with continuing connection to the firm installation.

Overvoltage category II:

Energy using electrical equipment, which is energised by a firm installation e.g. household appliances, portable tools and other domestic appliances as well as similar devices.

Electrical equipment for the connection to electric circuits, in which measures are taken for the delimitation of the transient overvoltages to a suitable low value, e.g. devices with electronic circuits and appropriate protection level.

F.2 DIN EN 60664-1 (VDE 0110-1), table F.2 (extract)
Clearance for transient overvoltages

Required impulse withstand voltage [1] [5]	Mimimum clearence in air up to 2 000 m above sea level		
	Case A Inhomogeneous field (see 3.15)		
	Pollution degree		
	1	2	3
kV	mm	mm	mm
1,2	0,25	0,25	0,8 [4]
1,5 [2]	0,5	0,5	
2,0	1,0	1,0	1,0
2,5 [2]	1,5	1,5	1,5
3,0	2,0	2,0	2,0
4,0 [2]	3,0	3,0	3,0
5,0	4,0	4,0	4,0
6,0 [2]	5,5	5,5	5,5
8,0 [2]	8,0	8,0	8,0

[1] This voltage is
- for functional insulation, the maximum impulse voltage expected to occur accross the clearence (see 5.1.5),
- for basic insulation directly exposed to or significantly influenced by transient overvoltages from the low-voltage mains (see 4.3.3.3, 4.3.3.4.1 and 5.1.6), the rated impulse voltage of the equipment,
- for other basic insulation (see 4.3.3.4.2), the highest impulse voltage that can occur in the circuit.

[2] Prefered values as specified in 4.2.3.

[4] The minimum clearences given for pollution degrees 2 and 3 are based on the reduced withstand characteristics of the associated creepage distance under humidity conditions (see IEC 60664-5).

[5] For parts or circuits within equipment subject to impulse voltages according to 4.3.3.4.2, interpolation of values is allowed. However, standardization is achieved by using the preferred series of impulse voltage values in 4.2.3.

F.4 DIN EN 60664-1 (VDE 0110-1), table F.4 (extract)
Creepage distance for the avoidance of the failure by tracking

Voltage r.m.s. [1]	Minimum creepage distances								
	Printed wiring material								
	Pollution degree								
	1	2	1	2			3		
	All material groups	All material groups except IIIb	All material groups	Material group I	Material group II	Material group III	Material group I	Material group II	Material group III [2]
V	mm	mm	mm	mm	mm	mm	mm	mm	mm
25	0,025	0,040	0,125	0,500	0,500	0,500	1,250	1,250	1,250
32	0,025	0,040	0,14	0,53	0,53	0,53	1,30	1,30	1,30
40	0,025	0,040	0,16	0,56	0,80	1,10	1,40	1,60	1,80
50	0,025	0,040	0,18	0,60	0,85	1,20	1,50	1,70	1,90
63	0,040	0,063	0,20	0,63	0,90	1,25	1,60	1,80	2,00
80	0,063	0,100	0,22	0,67	0,95	1,30	1,70	1,90	2,10
100	0,100	0,160	0,25	0,71	1,00	1,40	1,80	2,00	2,20
125	0,160	0,250	0,28	0,75	1,05	1,50	1,90	2,10	2,40
160	0,250	0,400	0,32	0,80	1,10	1,60	2,00	2,20	2,50
200	0,400	0,630	0,42	1,00	1,40	2,00	2,50	2,80	3,20
250	0,560	1,000	0,56	1,25	1,80	2,50	3,20	3,60	4,00
320	0,75	1,60	0,75	1,60	2,20	3,20	4,00	4,50	5,00
400	1,0	2,0	1,0	2,0	2,8	4,0	5,0	5,6	6,3
500	1,3	2,5	1,3	2,5	3,6	5,0	6,3	7,1	8,0
630	1,8	3,2	1,8	3,2	4,5	6,3	8,0	9,0	10,0
800	2,4	4,0	2,4	4,0	5,6	8,0	10,0	11,0	12,5
1000	3,2	5,0	3,2	5,0	7,1	10,0	12,5	14,0	16,0

[1] This voltage is
- for functional insulation, the working voltage,
- for basic and supplementary insulation of the circuit energized directly from the supply mains (see 4.3.2.2.1), the voltage rationalized through Table F.3a or Table F.3b, based on the rated voltage of the equipment, or the rated insulation voltage,
- for basic and supplementary insulation of systems, equipment and internal circuits not energized directly from the mains (see 4.3.2.2.2), the highest r.m.s. voltage which can occur in the system, equipment or internal circuit when supplied at rated voltage and under the most onerous combination of conditions of operation within equipment rating.

[2] Material group IIIb is no not recommended for application in pollution degree 3 above 630 V.

Degree of contamination

The micro environment determines the influence of the contamination on the isolation.

However the macro environment must be considered with the view of the micro environment.

Resources to achieve a reduction of the contamination on the regarded isolation can be planned by the effective employment of casings (housings), encapsulations or hermetic sealings.

The influence of the contamination is considered with the calculation of air and creepage distances by degrees of pollution.

F.1 DIN EN 60664-1 (VDE 0110-1), table F.1 (extract)
Rated impulse voltages for electrical equipments, which are energised directly by a low-voltage system

Nominal voltage of the supply system [1] based on IEC 60038 [3]		Rated impulse voltage [2]			
		Overvoltage catagory [4]			
Three phase	Single phase	I	II	III	IV
V	V	V	V	V	V
	120-240	800	1 500	2 500	4 000
230/400 277/480		1 500	2 500	4 000	6 000
400/690		2 500	4 000	6 000	8 000
1 000		4 000	6 000	8 000	12 000

[1] See Annex B for application to existing different low-voltage mains and their nominal voltages.

[2] Equipment with these rated impulse voltages can be used in installations in accordance with IEC 60364-4-44.

[3] The / mark indicates a four-wire three-phase distribution system. The lower value is the voltage line-to-neutral, while the higher value is the voltage line-to-line. Where only one value is indicated, it refers to three-wire, three-phase systems and specifies the value line-to-line.

[4] See 4.3.3.2.2 for an explanation of the overvoltage catagories.

Technical Information

Four degrees of contamination levels are defined for the micro environment:

Contamination level 1
No contamination or only dry, non-conductive contamination occurs. The contamination has no influence.

Contamination level 2
Only non-conductive contamination occurs. However, occasional temporary conductivity must be expected as a result of moisture condensation.

Contamination level 3
Conductive contamination occurs; dry, non-conductive contamination which becomes conductive as a result of moisture condensation may also occur.

Contamination level 4
Impurities in the form of conductive dust, rain or humidity result in permanent conductivity.

Insulant

DIN EN 60664-1 (VDE 0110-1) divides the insulants according to their CTI values in four groups. These are:

Insulant I: 600 = CTI
Insulant II: 400 = CTI < 600
Insulant IIIa: 175 = CTI < 400
Insulant IIIb: 100 = CTI < 175

The check numbers of the tracking must be determined according to IEC 60112 at an examination body using test solution A. The check number of the tracking is used as a proof of the creepage characteristics of insulants.

Rated cross section

The current carrying capacity depends not only on the terminal design, but also on the application of the terminals. The appropriate specifications for the devices, e.g. DIN EN 60335-1 (VDE 0700-1), should be taken into account.
According to DIN EN 60999-1/VDE 0609 part 1, the current cross section and respectively the rated connection ability of a connection referres to the wire cross section indicated by the manufacturer, to which determined thermal, mechanical and electrical requirements apply to.
The relationship between rated connection abilities and diameters of the wires is represented in table 1.
If nothing else is specified in the product standard, each connection point must be able to take up not only its rated cross section (rated connection ability) but also the next two lower cross sections.
Connecting points must be able to take up unprepared wires.
Regarded as unprepared wires are all cables stripped at their ends, whose form is adjusted before insertion or whose wires are twisted for the purpose of the solidification.

T1 DIN EN 60999-1, table 1 (extract)
Relation between rated connection abilities and wires

Rated cross section	Theoretical diameter of the largest conductor						
	metric			AWG			
	solid		flexible	solid			flexible
	single wire	multi-stranded wire			b) single wire	b) Class B multi-stranded wire	c) Class I, K, M multi-stranded wire
mm²	mm	mm	mm	No.	mm	mm	mm
0,2	0,51	0,53	0,61	24	0,54	0,61	0,64
0,34	0,63	0,66	0,8	22	0,68	0,71	0,80
0,5	0,9	1,1	1,1	20	0,85	0,97	1,02
0,75	1,0	1,2	1,3	18	1,07	1,23	1,28
1,0	1,2	1,4	1,5	–	–	–	–
1,5	1,5	1,7	1,8	16	1,35	1,55	1,60
2,5	1,9	2,2	2,3 a)	14	1,71	1,95	2,08
4,0	2,4	2,7	2,9 a)	12	2,15	2,45	2,70
6,0	2,9	3,3	3,9 a)	10	2,72	3,09	3,36
10,0	3,7	4,2	5,1	8	3,34	3,89	4,32
16,0	4,6	5,3	6,3	6	4,32	4,91	5,73
25,0	–	6,6	7,8	4	5,45	6,18	7,26
35	–	7,9	9,2	2	6,87	7,78	9,02

NOTE The diameter of the largest solid and flexible wire is based on Table 1 according to IEC 60228A and IEC 60344 and for AWG conductors on ASTM B 172-71 [4], ICEA-Publication S-19-81 [5], ICEA-Publication S-66-524 [6] and ICEA-Publication S-66-516 [7].

a) Information only for flexible wires in class 5 of IEC 60228A.
b) Nominal + 5 %.
c) Largest diameter for each of the three classes I, K, M + 5 %.

In the USA and Canada an identification is used by leader sizes (AWG) instead of the cross section indicated in mm².

Current carrying capacity

Current carrying capacity In the technical data a current carrying capacity is shown, with which no thermal damage and no disturbance of the function arise under consideration of the rated cross section and the ambient temperature.
testing currents according to DIN EN 60998-1 (VDE 0613 part 1) are assigned to the rated cross sections in table 2.
With the testing currents the heating up of energized parts of the connecting point may not exceed 45 K.
The permitted carrying capacity not only depends on the terminal construction, but also on the use of the terminal.
The appropriate technical regulations for devices, e.g. DIN EN 60335-1 (VDE 0700-1) should be taken into consideration.

T2 DIN EN 60998-1, table 2 (extract)
Relation between rated connection abilities and testing current

Rated Cross-section	Load capacity
mm²	A
0,2	4
0,34	5
0,5	6
0,75	9
1	13,5
1,5	17,5
2,5	24
4	32
6	41
10	57
16	76
25	101
35	125

Index

Catalogue overview

Electronic
1: Pitch 3,5 mm
2: Pitch 5 mm
3: Pitch 5,08 mm
4: Pitch 7,5 mm
5: Pitch >10 mm
6: SMD & THR

Your Contact

USA
WECO Electrical Connectors Inc.
2330 State Route 11
Mooers NY12958
Phone: +1 518 298-4810
Fax: +1 518 298-5938

FRANCE
WECO-Connexion S.A.R.L.
8 B, Rue des Industries
67140 Eichhoffen
Phone: +33 (0) 3 88.08.97.29
Fax: +33 (0) 3 88.08.97.49

BRASIL
WECO do Brasil LTDA.
Rod. BR-116, 12.757 - Vila Fanny
Curitiba, PR CEP-81690-200
Phone: +55 41-3278-9720
Phone: +55 41-3278-9721
Phone: +55 41-3278-9717
Fax: +55 41-3276-8575
weco.do.brasil@weco.com.br
www.weco.com.br

HONG KONG
WECO Electrical Connectors Ltd.
Room 1105, New Commerce Centre
19 On Sum Street, Shatin
New Territory, Hong Kong
Phone: +852 2636 6252
Fax: +852 2559 3161
www.weco-hk.com

CANADA
WECO Electrical Connectors Inc.
19 900 Clark Graham
Baie d'Urfé, QC. H9X 3R8
Phone: +1 514 694-9136
Fax: +1 514 694-0956
weco@weco.ca
www.weco.ca

MEXICO
WECO de México SA CV
Carretera a Morelia 3583-B
Tlajomulco de Zuñiga
Guadalajara, Jalisco
Fraccionamiento Los Gavilanes
Codigo Postal: 45645
Phone: +52 33 3684 9066
Fax: +52 33 3684 9066
www.weco.com.mx

CHINA
WECO Electrical (Shenzhen) Ltd.
Room 1719, Dynamic World,
Zhonghang Road No. 9
Futian District,
Shenzhen, P.R. China, 518031
Phone: +86 755 8280 7673
Fax: +86 755 8280 7674
www.weco-cn.com

WECO Contact GmbH
Connectors for electronic and electrical application
PO Box 2342
63413 Hanau
Donaustrasse 15
63452 Hanau
Germany

Phone +49 6181 / 105 -156
Fax +49 6181 / 105 -720
eMail vertrieb@wecogroup.de
Internet www.wecogroup.com

Art.-No.: 45 955 102