

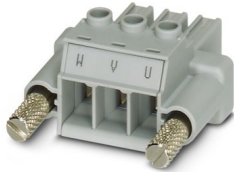
# PC 5/ 3-STF1-7,62 GY RAE BD:NZ - PCB connector



1783445

<https://www.phoenixcontact.com/pc/products/1783445>

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PCB connector, nominal cross section: 6 mm<sup>2</sup>, color: gray, nominal current: 41 A, rated voltage (III/2): 1000 V, contact surface: Tin, contact connection type: Socket, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: PC 5/..-STF1, pitch: 7.62 mm, connection method: Screw connection with tension sleeve, screw head form: H1L Slotted Phillips recess, conductor/PCB connection direction: 0 °, locking clip: - without locking clip, plug-in system: COMBICON PC 5, locking: Screw locking mechanism, mounting: Screw flange, type of packaging: packed in cardboard, Labeling: W V U; special screw: M3 knurled screw

## Your advantages

- Well-known connection principle allows worldwide use
- Low temperature rise, thanks to maximum contact force
- Allows connection of two conductors
- Integrated double steel spring provides additional safety in the event of temperature and power fluctuations
- 600 V UL approval in the smallest of dimensions
- Shield for adherence to the EMC requirements and an optional strain relief
- Flange with knurled screw that does not require tools, for superior mechanical stability

## Commercial data

Item number	1783445
Packing unit	50 pc
Minimum order quantity	1 pc
Product key	AAHGIC
GTIN	4046356563482
Weight per piece (including packing)	23.66 g
Weight per piece (excluding packing)	18.781 g
Customs tariff number	85366990
Country of origin	DE

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## Technical data

### Product properties

Product type	PCB connector
Product family	PC 5/..-STF1
Product line	COMBICON Connectors Special
Type	Standard
Number of positions	3
Pitch	7.62 mm
Number of connections	3
Number of rows	1
Number of potentials	3
Mounting flange	Screw flange

### Electrical properties

Nominal current $I_N$	41 A
Nominal voltage $U_N$	1000 V
Degree of pollution	3
Rated voltage (III/3)	1000 V
Rated surge voltage (III/3)	8 kV
Rated voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV
Rated voltage (II/2)	1000 V
Rated surge voltage (II/2)	6 kV

### Connection data

#### Connection technology

Connector system	COMBICON PC 5
Nominal cross section	6 mm <sup>2</sup>
Contact connection type	Socket

#### Interlock

Locking type	Screw locking mechanism
Mounting flange	Screw flange
Tightening torque	0.3 Nm ... 0.7 Nm

#### Conductor connection

Connection method	Screw connection with tension sleeve
Conductor/PCB connection direction	0 °
Conductor cross section rigid	0.2 mm <sup>2</sup> ... 10 mm <sup>2</sup>
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 6 mm <sup>2</sup>
Conductor cross section AWG	24 ... 10
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 6 mm <sup>2</sup>

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Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm <sup>2</sup> ... 4 mm <sup>2</sup>
2 conductors with same cross section, solid	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
2 conductors with same cross section, flexible	0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Cylindrical gauge a x b / diameter	3.6 mm x 3.1 mm / 3.4 mm
Stripping length	10 mm
Tightening torque	0.5 Nm ... 0.8 Nm

## Material specifications

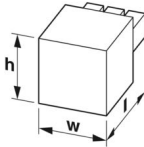
### Material data - contact

Note	WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/JEDEC JESD 201
Contact material	Cu alloy
Surface characteristics	hot-dip tin-plated
Metal surface terminal point (top layer)	Tin (4 - 8 µm Sn)
Metal surface contact area (top layer)	Tin (4 - 8 µm Sn)

### Material data - housing

Color (Housing)	gray (7042)
Insulating material	PA
Insulating material group	I
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0
Glow wire flammability index GWFI according to EN 60695-2-12	850
Glow wire ignition temperature GWIT according to EN 60695-2-13	775
Temperature for the ball pressure test according to EN 60695-10-2	125 °C

## Dimensions

Dimensional drawing	
Pitch	7.62 mm
Width [w]	38.09 mm
Height [h]	19.7 mm
Length [l]	35.3 mm

## Mounting

Drive form screw head	Slotted Phillips recess (H1L)
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## Flange

Tightening torque	0.3 Nm ... 0.7 Nm
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## Notes

Notes on operation	In accordance with IEC 61984, COMBICON connectors have no switching power (COC). During designated use, they must not be plugged in or disconnected when carrying voltage or under load.
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## Environmental and real-life conditions

### Ambient conditions

Ambient temperature (operation)	-40 °C ... 100 °C (dependent on the derating curve)
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C

## Electrical tests

### Air clearances and creepage distances |

Specification	IEC 60664-1:2007-04
Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	1000 V
Rated surge voltage (III/3)	8 kV
minimum clearance value - non-homogenous field (III/3)	8 mm
minimum creepage distance (III/3)	12.5 mm
Rated insulation voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV
minimum clearance value - non-homogenous field (III/2)	8 mm
minimum creepage distance (III/2)	8 mm
Rated insulation voltage (II/2)	1000 V
Rated surge voltage (II/2)	6 kV
minimum clearance value - non-homogenous field (II/2)	5.5 mm
minimum creepage distance (II/2)	5.5 mm

## Packaging specifications

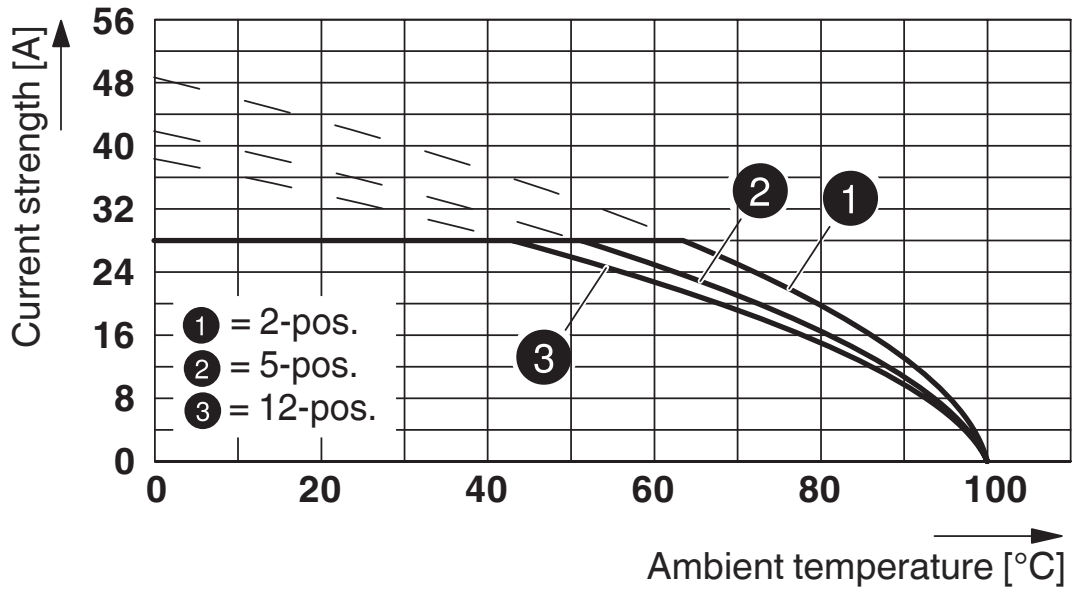
Type of packaging	packed in cardboard
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Drawings

Diagram



Derating curve for: PC 5/...-ST1-7,62 with PC 4/...-G-7,62  
Conductor cross section: 4 mm<sup>2</sup>

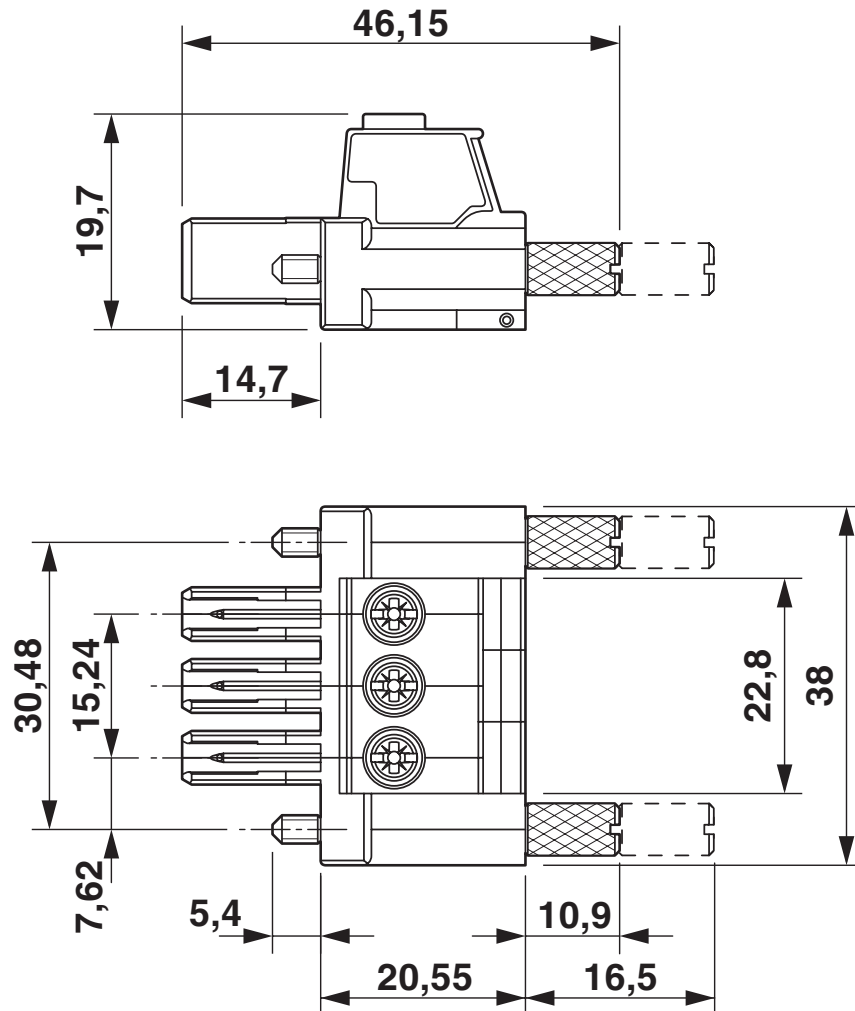
# PC 5/ 3-STF1-7,62 GY RAE BD:NZ - PCB connector

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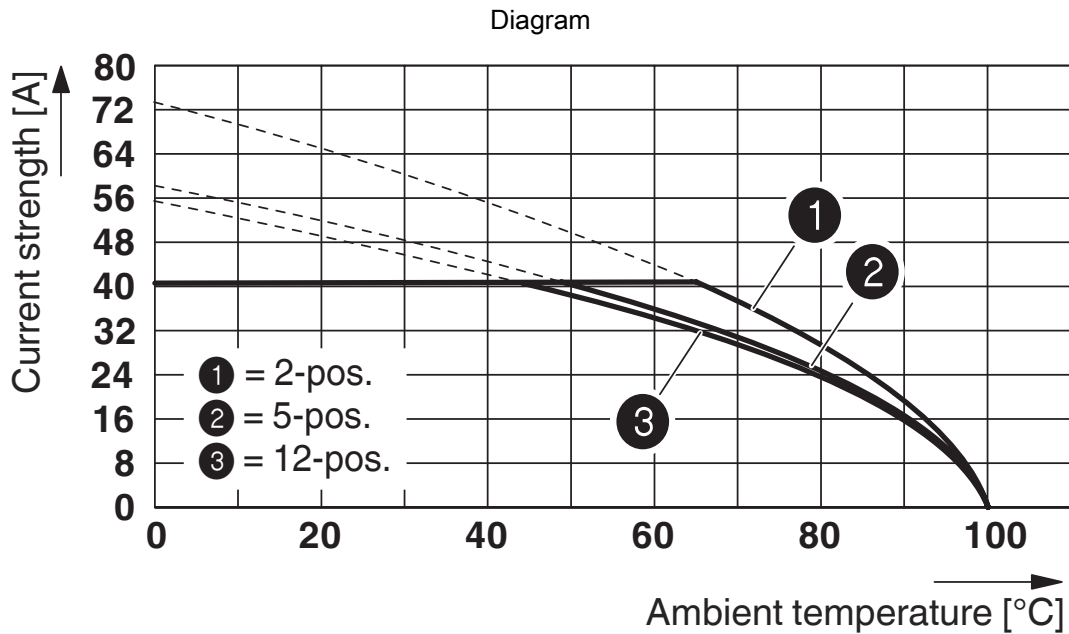


Dimensional drawing

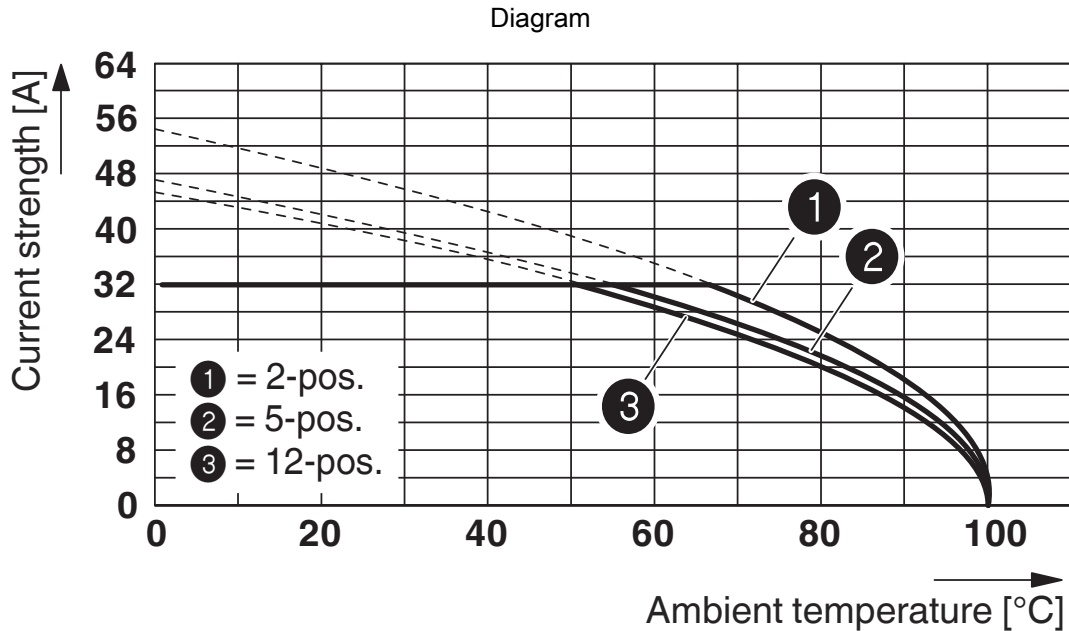


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Derating curve for: PC 5/...-ST1-7,62 with PC 5/...-G-7,62  
 Conductor cross section: 10 mm<sup>2</sup>



Derating curve for: PC 5/...-ST1-7,62 with PC 5/...-G-7,62  
 Conductor cross section: 6 mm<sup>2</sup>

# PC 5/ 3-STF1-7,62 GY RAE BD:NZ - PCB connector




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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/pc/products/1783445>

 <b>cULus Recognized</b> Approval ID: E60425-19920722		Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
Use group B					
Multi-conductor connection	600 V	41 A	24 - 12	-	
Screw connection	600 V	41 A	24 - 8	-	
Use group C					
Multi-conductor connection	600 V	41 A	24 - 12	-	
Screw connection	600 V	41 A	24 - 8	-	



# PC 5/ 3-STF1-7,62 GY RAE BD:NZ - PCB connector



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## Classifications

### ECLASS

ECLASS-11.0	27460202
ECLASS-12.0	27460202
ECLASS-13.0	27460202

### ETIM

ETIM 8.0	EC002638
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### UNSPSC

UNSPSC 21.0	39121400
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

### EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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## Accessories

### SZS 0,6X3,5 - Screwdriver

1205053

<https://www.phoenixcontact.com/pc/products/1205053>



Actuation tool, for ST terminal blocks, insulated, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

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### CP-PC RD - Coding profile

1701967

<https://www.phoenixcontact.com/pc/products/1701967>



Coding profile, for plugging into the coding ribs of the plug at a later date, insulating material, color: Red

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## SK 7,62/3,8:FORTL.ZAHLEN - Marker card

0804549

<https://www.phoenixcontact.com/pc/products/0804549>



Marker card, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 100, mounting type: adhesive, for terminal block width: 7.62 mm, lettering field size: 7.62 x 3.8 mm

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## SK 3,8 REEL P7,62 WH CUS - Marker card

0825128

<https://www.phoenixcontact.com/pc/products/0825128>



Marker card, can be ordered: by card, white, labeled according to customer specifications, mounting type: adhesive, for terminal block width: 7.62 mm, lettering field size: continuous x 3.8 mm

# PC 5/ 3-STF1-7,62 GY RAE BD:NZ - PCB connector



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## SK U/3,8 WH:UNBEDRUCKT - Marker card

0803906

<https://www.phoenixcontact.com/pc/products/0803906>



Marker card, Din A4, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, Office printing systems, mounting type: adhesive, for terminal block width: 210 mm, lettering field size: 186 x 3.8 mm, Number of individual labels: 1440

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## SK 3,8 WH:REEL - Marker strip

0805218

<https://www.phoenixcontact.com/pc/products/0805218>



Marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK E.300 (D)/600 (D), THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: adhesive, lettering field size: continuous x 3.8 mm, Number of individual labels: 12

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