

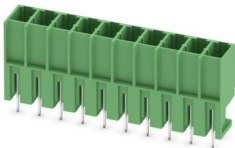
PCV 4/10-G-7,62 - PCB header

1804768

<https://www.phoenixcontact.com/us/products/1804768>



Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



PCB headers, nominal cross section: 4 mm², color: green, nominal current: 20 A, rated voltage (III/2): 630 V, contact surface: Tin, contact connection type: Pin, number of potentials: 10, number of rows: 1, number of positions: 10, number of connections: 10, product range: PCV 4/-G, pitch: 7.62 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 5 mm, number of solder pins per potential: 2, plug-in system: COMBICON PC 4, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard, Mounting flange: Accessory Item No. 1827570

Your advantages

- Well-known mounting principle allows worldwide use
- Maximum flexibility when it comes to device design – one header for connectors with different connection technologies
- Easy PCB replacement thanks to plug-in modules

Commercial data

Item number	1804768
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	AA04
Product key	AADSAD
Catalog page	Page 517 (C-1-2013)
GTIN	4017918046200
Weight per piece (including packing)	23.236 g
Weight per piece (excluding packing)	18.1 g
Customs tariff number	85366930
Country of origin	DE

PCV 4/10-G-7,62 - PCB header

1804768

<https://www.phoenixcontact.com/us/products/1804768>



Technical data

Product properties

Product type	PCB headers
Product family	PCV 4/..-G
Product line	COMBICON Connectors L
Type	Standard
Number of positions	10
Pitch	7.62 mm
Number of connections	10
Number of rows	1
Number of potentials	10
Mounting flange	without
Pin layout	Linear pinning
Solder pins per potential	2

Electrical properties

Nominal current I_N	20 A
Nominal voltage U_N	630 V
Degree of pollution	3
Contact resistance	0.45 mΩ
Rated voltage (III/3)	400 V
Rated surge voltage (III/3)	6 kV
Rated voltage (III/2)	630 V
Rated surge voltage (III/2)	6 kV
Rated voltage (II/2)	630 V
Rated surge voltage (II/2)	6 kV

Mounting

Mounting type	Wave soldering
Pin layout	Linear pinning

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	Tin-plated
Metal surface contact area (top layer)	Tin (5 - 10 μm Sn)
Metal surface contact area (middle layer)	Nickel (2 - 5 μm Ni)
Metal surface soldering area (top layer)	Tin (5 - 10 μm Sn)
Metal surface soldering area (middle layer)	Nickel (2 - 5 μm Ni)

Material data - housing

PCV 4/10-G-7,62 - PCB header

1804768

<https://www.phoenixcontact.com/us/products/1804768>

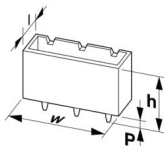


Color (Housing)	green (6021)
Insulating material	PBT
Insulating material group	IIIa
CTI according to IEC 60112	225
Flammability rating according to UL 94	V0

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.
--------------------	--

Dimensions

Dimensional drawing	
Pitch	7.62 mm
Width [w]	76.16 mm
Height [h]	34 mm
Length [l]	14.25 mm
Installed height	29 mm
Solder pin length [P]	5 mm
Pin dimensions	0.8 x 1 mm

PCB design

Pin spacing	7.62 mm
Hole diameter	1.3 mm

Mechanical tests

Visual inspection

Specification	IEC 60512-1-1:2002-02
Result	Test passed

Dimension check

Specification	IEC 60512-1-2:2002-02
Result	Test passed

Resistance of inscriptions

Specification	IEC 60068-2-70:1995-12
Result	Test passed

Polarization and coding

Specification	IEC 60512-13-5:2006-02
Result	Test passed

PCV 4/10-G-7,62 - PCB header



1804768

<https://www.phoenixcontact.com/us/products/1804768>

Contact holder in insert

Specification	IEC 60512-15-1:2008-05
Contact holder in insert Requirements >20 N	Test passed

Insertion and withdrawal forces

Result	Test passed
No. of cycles	50
Insertion strength per pos. approx.	8 N
Withdraw strength per pos. approx.	6 N

Electrical tests

Thermal test | Test group C

Specification	IEC 60512-5-1:2002-02
Tested number of positions	12

Insulation resistance

Specification	IEC 60512-3-1:2002-02
Insulation resistance, neighboring positions	$>10^{12} \Omega$

Air clearances and creepage distances |

Specification	IEC 60664-1:2007-04
Insulating material group	IIIa
Comparative tracking index (IEC 60112)	CTI 225
Rated insulation voltage (III/3)	400 V
Rated surge voltage (III/3)	6 kV
minimum clearance value - non-homogenous field (III/3)	5.5 mm
minimum creepage distance (III/3)	6.3 mm
Rated insulation voltage (III/2)	630 V
Rated surge voltage (III/2)	6 kV
minimum clearance value - non-homogenous field (III/2)	5.5 mm
minimum creepage distance (III/2)	6.3 mm
Rated insulation voltage (II/2)	630 V
Rated surge voltage (II/2)	6 kV
minimum clearance value - non-homogenous field (II/2)	5.5 mm
minimum creepage distance (II/2)	6.3 mm

Environmental and real-life conditions

Vibration test

Specification	IEC 60068-2-6:2007-12
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 Hz ... 60.1 Hz)
Acceleration	5g (60.1 Hz ... 150 Hz)

PCV 4/10-G-7,62 - PCB header



1804768

<https://www.phoenixcontact.com/us/products/1804768>

Test duration per axis	2.5 h
------------------------	-------

Durability test

Specification	IEC 60512-5:1992-08
Impulse withstand voltage at sea level	7.3 kV
Contact resistance R ₁	0.45 mΩ
Contact resistance R ₂	0.6 mΩ
Insertion/withdrawal cycles	50

Climatic test

Specification	ISO 6988:1985-02
Corrosive stress	0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle
Thermal stress	100 °C/168 h
Power-frequency withstand voltage	3.31 kV

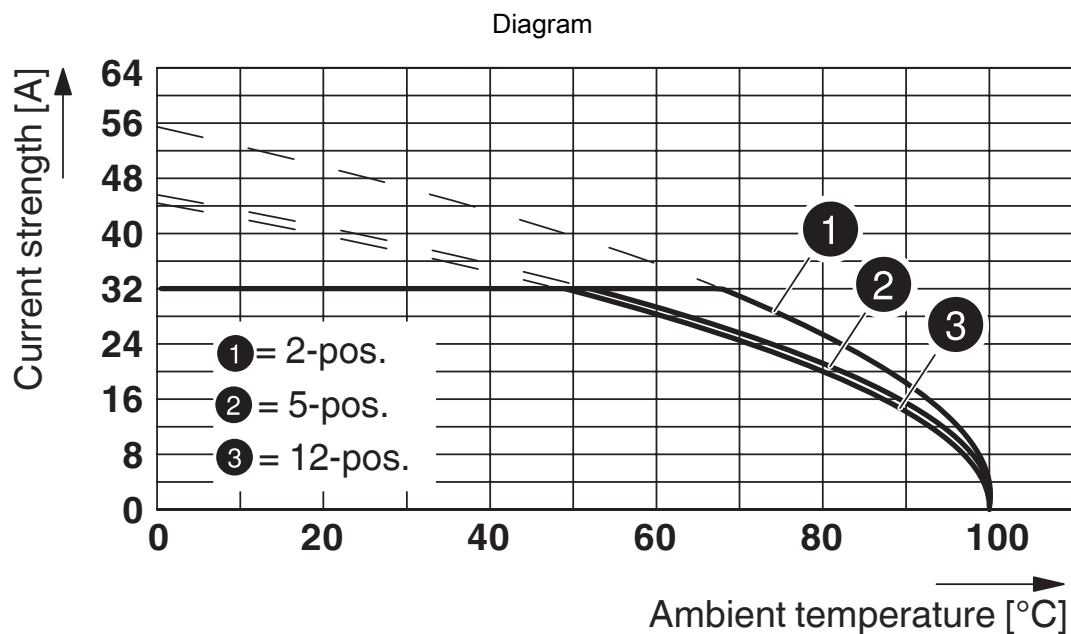
Ambient conditions

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

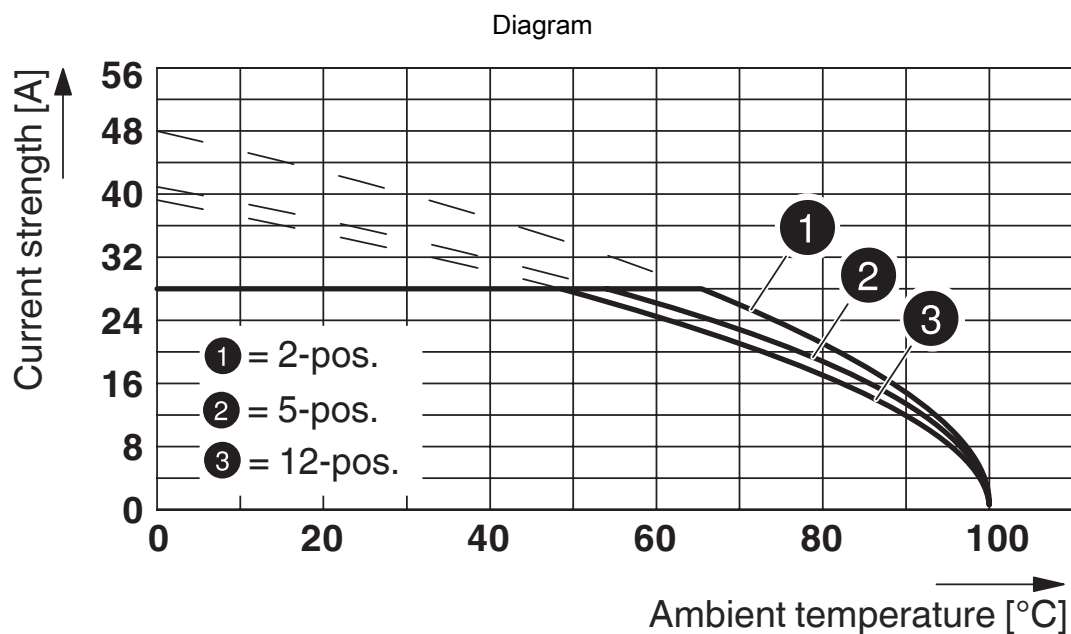
Packaging specifications

Type of packaging	packed in cardboard
-------------------	---------------------

Drawings

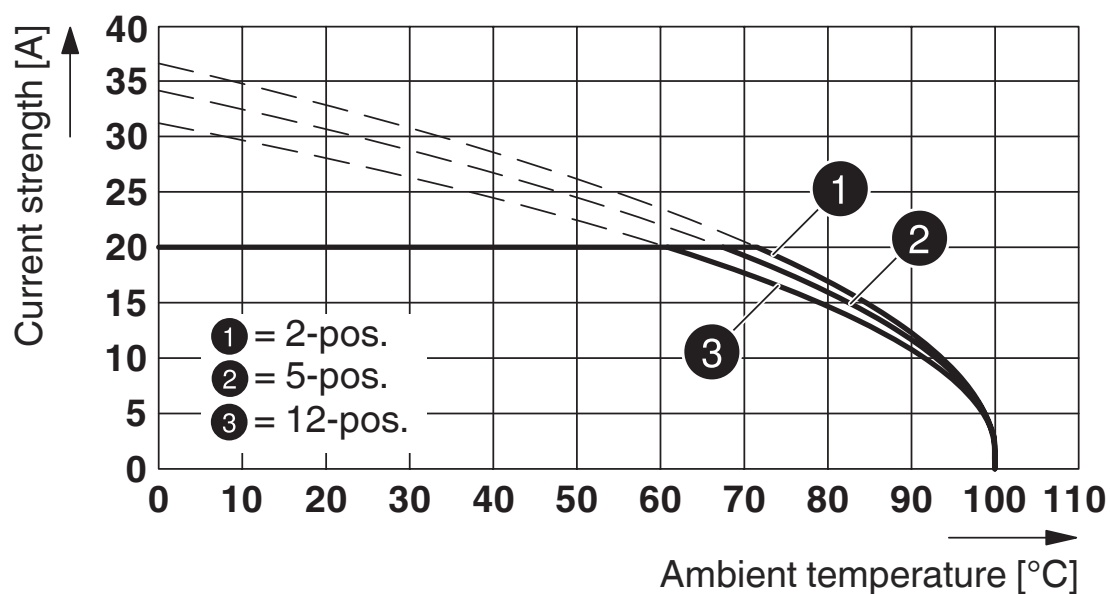


Derating curve for: PC 5/...-ST1-7,62 with PCV 4/...-G-7,62
Conductor cross section: 6 mm²



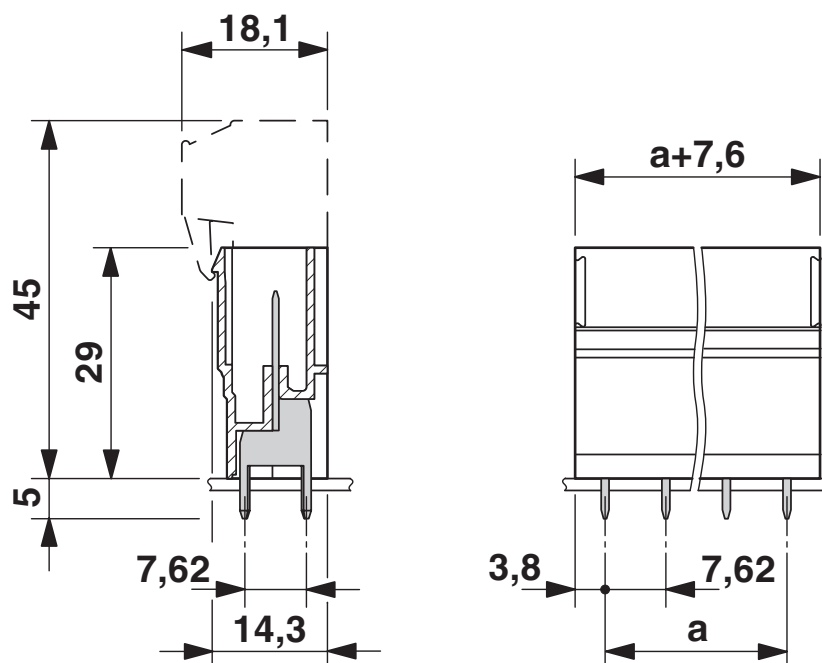
Derating curve for: PC 5/...-ST1-7,62 with PCV 4/...-G-7,62
Conductor cross section: 4 mm²

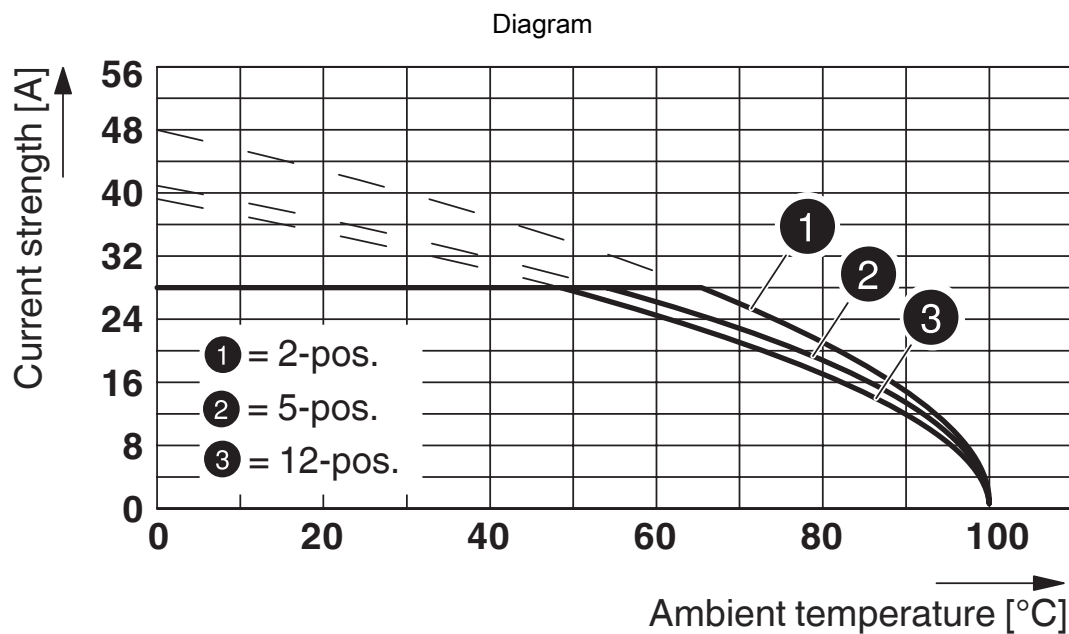
Diagram



Type: PC 4/...-STF-7,62 with PCV 4/...-G-7,62 and BF-PC 4

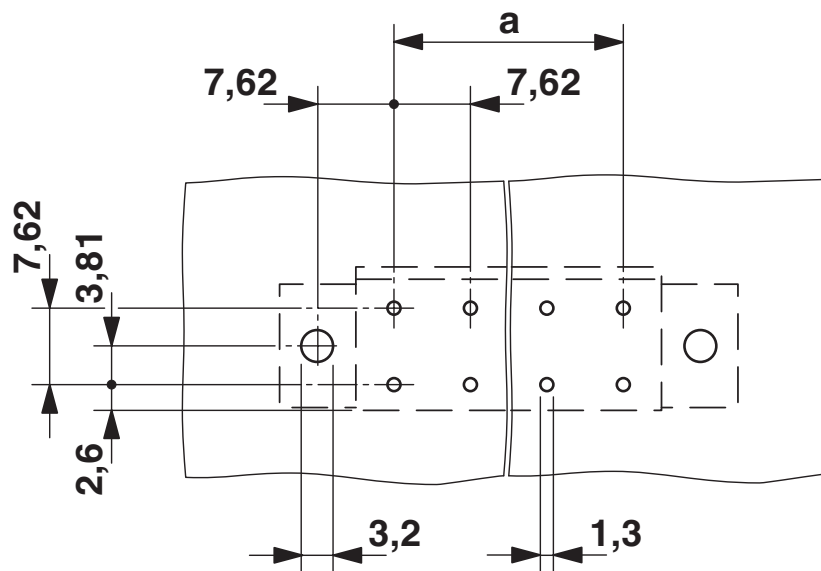
Dimensional drawing





Type: PC 5/...-STF1-7,62 with PCV 4/...-G-7,62 and BF-PC 4
Conductor cross section: 4 mm²

Drilling plan/solder pad geometry



PCV 4/10-G-7,62 - PCB header



1804768

<https://www.phoenixcontact.com/us/products/1804768>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1804768>

 CSA Approval ID: 13631				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B	300 V	20 A	-	-
Use group C	300 V	20 A	-	-

 cULus Recognized Approval ID: E60425-19920722				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B	300 V	30 A	-	-
Use group C	300 V	30 A	-	-

 DNV GL Approval ID: TAE00001EZ				
--	--	--	--	--

 LR Approval ID: LR21308805TA				
--	--	--	--	--

 BV Approval ID: 35433/B0 BV				
---	--	--	--	--

PCV 4/10-G-7,62 - PCB header



1804768

<https://www.phoenixcontact.com/us/products/1804768>

Classifications

ECLASS

ECLASS-11.0	27460201
ECLASS-12.0	27460201
ECLASS-13.0	27460201

ETIM

ETIM 9.0	EC002637
----------	----------

UNSPSC

UNSPSC 21.0	39121400
-------------	----------

PCV 4/10-G-7,62 - PCB header



1804768

<https://www.phoenixcontact.com/us/products/1804768>

Environmental product compliance

EU RoHS	
Fulfills EU RoHS substance requirements	Yes, No exemptions
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%

PCV 4/10-G-7,62 - PCB header

1804768

<https://www.phoenixcontact.com/us/products/1804768>



Accessories

BF-PC 4 - Mounting flange

1827570

<https://www.phoenixcontact.com/us/products/1827570>



Mounting flange, is snapped onto the left and right of the headers, for screw connection with PC 4/...-STF-7.62

CP-PC RD - Coding profile

1701967

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



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

PCV 4/10-G-7,62 - PCB header

1804768

<https://www.phoenixcontact.com/us/products/1804768>



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

0804549

<https://www.phoenixcontact.com/us/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

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

0803906

<https://www.phoenixcontact.com/us/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

PCV 4/10-G-7,62 - PCB header

1804768

<https://www.phoenixcontact.com/us/products/1804768>



B-STIFT - Marker pen

1051993

<https://www.phoenixcontact.com/us/products/1051993>

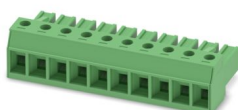


Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

PC 4/10-ST-7,62 - PCB connector

1804988

<https://www.phoenixcontact.com/us/products/1804988>



PCB connector, nominal cross section: 4 mm², color: green, nominal current: 20 A, rated voltage (III/2): 630 V, contact surface: Tin, contact connection type: Socket, number of potentials: 10, number of rows: 1, number of positions: 10, number of connections: 10, product range: PC 4/..-ST, pitch: 7.62 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON PC 4, locking: without, mounting: without, type of packaging: packed in cardboard

PCV 4/10-G-7,62 - PCB header

1804768

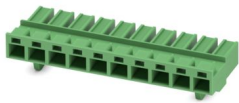
<https://www.phoenixcontact.com/us/products/1804768>



PCC 4/10-ST-7,62 - PCB connector

1840117

<https://www.phoenixcontact.com/us/products/1840117>



PCB connector, nominal cross section: 4 mm², color: green, nominal current: 20 A, rated voltage (III/2): 1000 V, contact connection type: Socket, number of potentials: 10, number of rows: 1, number of positions: 10, number of connections: 10, product range: PCC 4/...-ST, pitch: 7.62 mm, connection method: Crimp connection, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON PC 4, locking: without, mounting: without, type of packaging: packed in cardboard, Corresponding female crimp contacts with current [A] and conductor cross section range [mm²] data: 13,5A/STG-MTN 0,5-1,0 (3190438); 13,5A/STG-MTN 0,5-1,0 BA (3190629); 20A/STG-MTN 1,5-2,5 (3190506); 20A/STG-MTN 1,5-2,5 BA (3190632). BA = Taped contacts

Phoenix Contact 2024 © - all rights reserved
<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com