

GMSTBV 2,5/ 3-GF-7,62 - PCB header



1829167

<https://www.phoenixcontact.com/us/products/1829167>

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: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 630 V, contact surface: Tin, contact connection type: Pin, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: GMSTBV 2,5/..-GF, pitch: 7.62 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.9 mm, number of solder pins per potential: 1, plug-in system: COMBICON MSTB 2,5, Pin connector pattern alignment: Standard, locking: Screw locking, mounting: Threaded flange, type of packaging: packed in cardboard

Your advantages

- Maximum flexibility when it comes to device design – one header for connectors with different connection technologies
- Well-known mounting principle allows worldwide use
- Larger pitch for increased voltage requirements
- Vertical connection enables multi-row arrangement on the PCB

Commercial Data

Item number	1829167
Packing unit	1 pc
Minimum order quantity	50 pc
Sales Key	AA03
Product Key	AACSJG
Catalog Page	Page 345 (C-1-2013)
GTIN	4017918050924
Weight per Piece (including packing)	3.02 g
Weight per Piece (excluding packing)	3.02 g
Customs tariff number	85366930
Country of origin	DE

GMSTBV 2,5/ 3-GF-7,62 - PCB header



1829167

<https://www.phoenixcontact.com/us/products/1829167>

Technical Data

Product properties

Type	Standard
Product line	COMBICON Connectors M
Product type	PCB headers
Product family	GMSTBV 2,5/...-GF
Number of positions	3
Pitch	7.62 mm
Number of connections	3
Number of rows	1
Mounting flange	Threaded flange
Number of potentials	3
Pin layout	Linear pinning
Solder pins per potential	1

Electrical properties

Nominal current I_N	12 A
Nominal voltage U_N	630 V
Degree of pollution	3
Contact resistance	2.4 m Ω
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

Flange

Tightening torque	0.3 Nm
-------------------	--------

Attachment on the PCB

Tightening torque	0.3 Nm
Screw	Sheet metal screw ISO 1481-ST 2,2x6,5 C or ISO 7049-ST 2,2x6,5 C
Tightening torque	0.3 Nm
Screw	Sheet metal screw ISO 1481-ST 2,2x6,5 C or ISO 7049-ST 2,2x6,5 C

Material specifications

GMSTBV 2,5/ 3-GF-7,62 - PCB header

1829167

<https://www.phoenixcontact.com/us/products/1829167>

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 (3 - 5 μm Sn)
Metal surface contact area (middle layer)	Nickel (1.3 - 3 μm Ni)
Metal surface soldering area (top layer)	Tin (3 - 5 μm Sn)
Metal surface soldering area (middle layer)	Nickel (1.3 - 3 μm Ni)

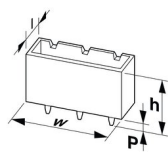
Material data - housing

Color (Housing)	green (6021)
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

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]	33.44 mm
Height [h]	15.9 mm
Length [l]	8.6 mm
Installed height	12 mm
Solder pin length [P]	3.9 mm
Pin dimensions	1 x 1 mm

Mechanical tests

Visual inspection

Specification	IEC 60512-1-1:2002-02
---------------	-----------------------

GMSTBV 2,5/ 3-GF-7,62 - PCB header



1829167

<https://www.phoenixcontact.com/us/products/1829167>

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

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	25
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	> 5 MΩ

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)	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)	5.5 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)	5.5 mm
Rated insulation voltage (II/2)	630 V

GMSTBV 2,5/ 3-GF-7,62 - PCB header



1829167

<https://www.phoenixcontact.com/us/products/1829167>

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

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)
Sweep speed	5g (60.1 Hz ... 150 Hz)
Test duration per axis	2.5 h

Durability test

Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	7.3 kV
Contact resistance R ₁	2.4 mΩ
Contact resistance R ₂	2.5 mΩ
Insertion/withdrawal cycles	25
Insulation resistance, neighboring positions	> 5 MΩ

Climatic test

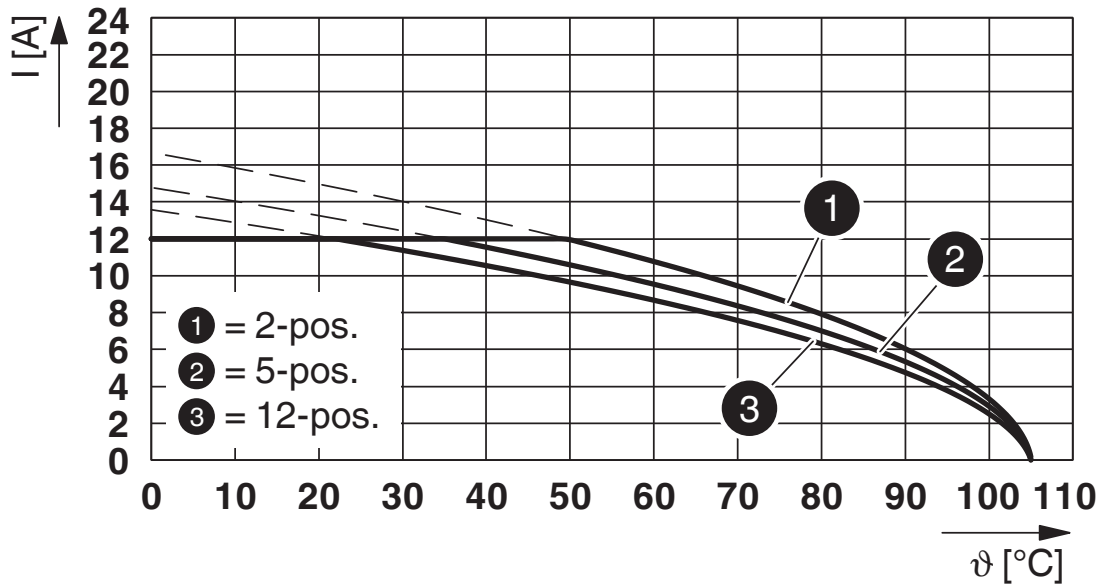
Specification	ISO 6988:1985-02
Corrosive stress	0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle
Thermal stress	100 °C/168 h
Power-frequency withstand voltage	3.31 kV

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

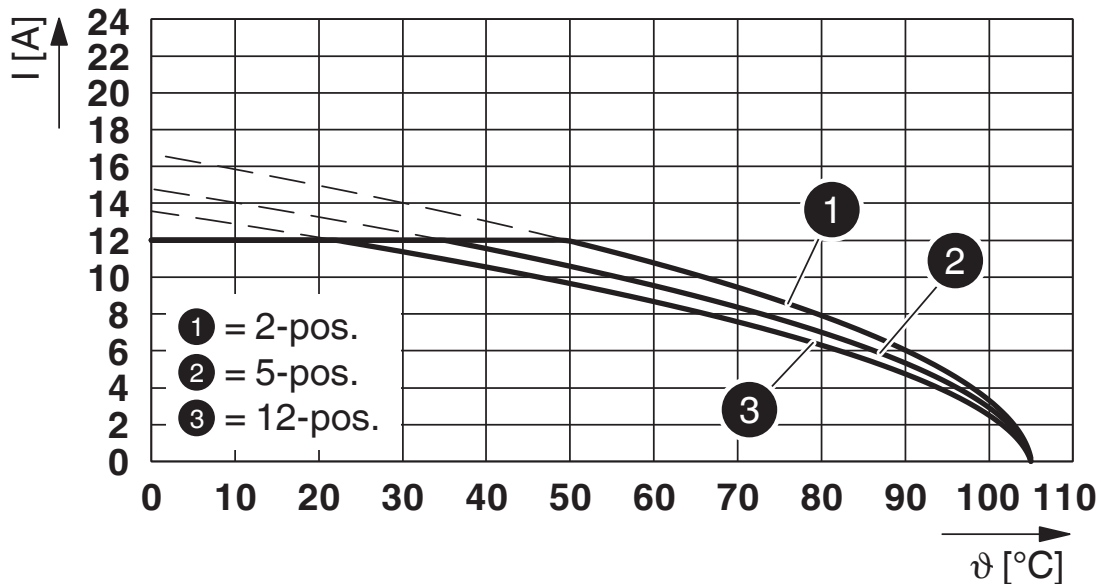
Drawings

Diagram



Type: GMVSTBR 2,5/...-STF-7,62 with GMSTBV 2,5/...-GF-7,62

Diagram



Type: GMVSTBW 2,5/...-STF-7,62 with GMSTBV 2,5/...-GF-7,62

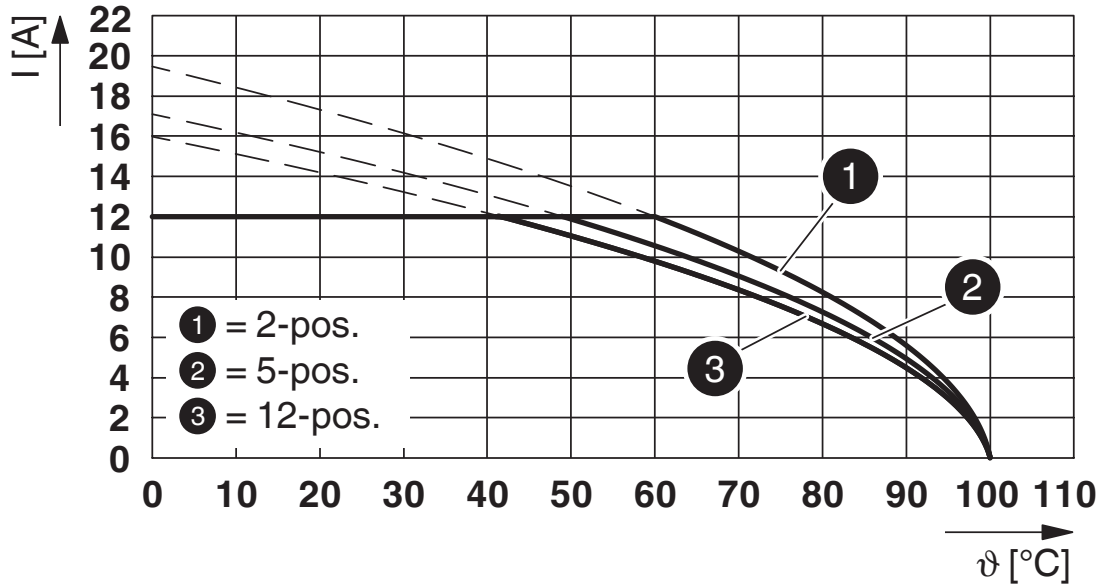
GMSTBV 2,5/ 3-GF-7,62 - PCB header



1829167

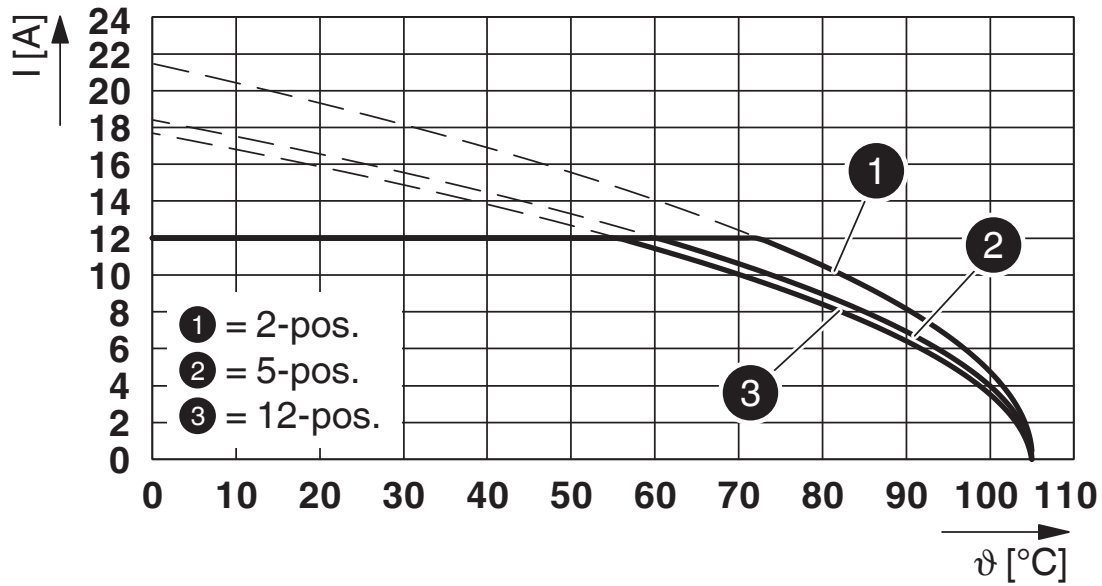
<https://www.phoenixcontact.com/us/products/1829167>

Diagram



Type: FRONT-GMSTB 2.5/...-STF-7.62 with GMSTBV 2.5/...-GF-7.62

Diagram



Type: GFKC 2,5/...-STF-7,62 with GMSTBV 2,5/...-GF-7,62

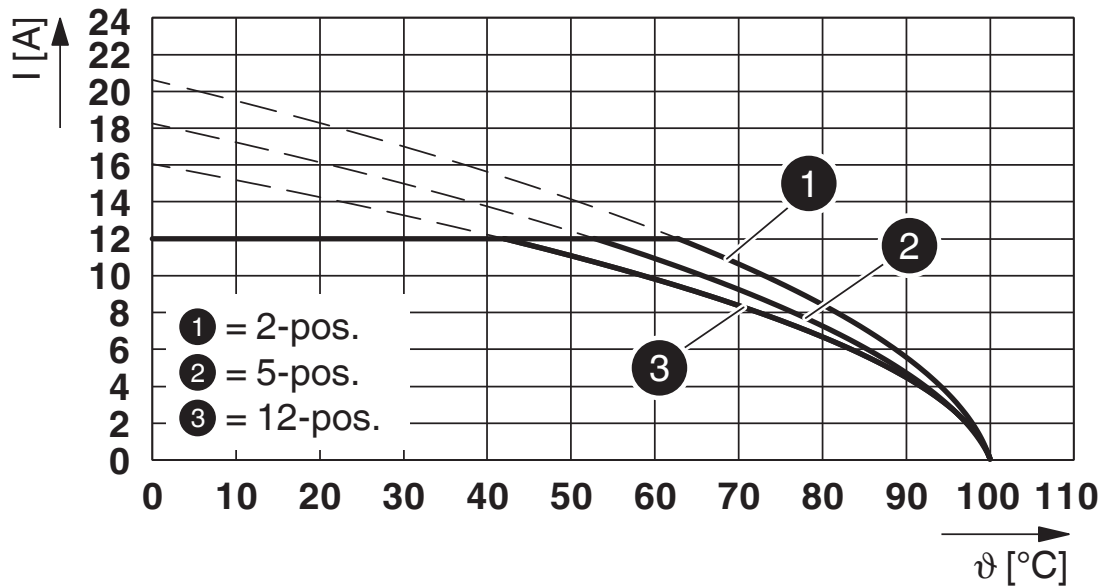
GMSTBV 2,5/ 3-GF-7,62 - PCB header



1829167

<https://www.phoenixcontact.com/us/products/1829167>

Diagram



Type: GMSTB 2.5/...-STF-7.62 with GMSTBV 2.5/...-GF-7.62

GMSTBV 2,5/ 3-GF-7,62 - PCB header





1829167


<https://www.phoenixcontact.com/us/products/1829167>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1829167>

 CSA Approval ID: 13631				
	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
Use group B	300 V	10 A	-	-
Use group D	300 V	10 A	-	-

 EAC Approval ID: B.01687				
--	--	--	--	--

 cULus Recognized Approval ID: E60425-19931013				
	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
Use group B	300 V	15 A	-	-
Use group D	300 V	10 A	-	-

 VDE Zeichengenehmigung Approval ID: 40050648				
	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	400 V	12 A	-	-

GMSTBV 2,5/ 3-GF-7,62 - PCB header



1829167

<https://www.phoenixcontact.com/us/products/1829167>

Classifications

ECLASS

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

ETIM

ETIM 8.0	EC002637
----------	----------

UNSPSC

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

GMSTBV 2,5/ 3-GF-7,62 - PCB header



1829167

<https://www.phoenixcontact.com/us/products/1829167>

Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

GMSTBV 2,5/ 3-GF-7,62 - PCB header



1829167

<https://www.phoenixcontact.com/us/products/1829167>

Accessories

MSTB-BL - Accessories

1755477

<https://www.phoenixcontact.com/us/products/1755477>



Keying cap, for forming sections, plugs onto header pin, green insulating material

CR-MSTB - Coding section

1734401

<https://www.phoenixcontact.com/us/products/1734401>



Coding section, inserted into the recess in the header or the inverted plug, red insulating material

GMSTBV 2,5/ 3-GF-7,62 - PCB header

1829167

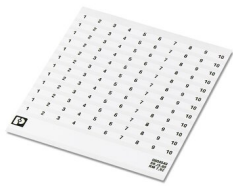
<https://www.phoenixcontact.com/us/products/1829167>



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

FRONT-GMSTB 2,5/ 3-STF-7,62 - PCB connector

1805990

<https://www.phoenixcontact.com/us/products/1805990>



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 630 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: FRONT-GMSTB 2,5/..-STF, pitch: 7.62 mm, connection method: Front screw connection, screw head form: L Slotted, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

GMSTBV 2,5/ 3-GF-7,62 - PCB header

1829167

<https://www.phoenixcontact.com/us/products/1829167>

GMVSTBR 2,5/ 3-STF-7,62 - PCB connector

1847893

<https://www.phoenixcontact.com/us/products/1847893>



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 630 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: GMVSTBR 2,5/..-STF, pitch: 7.62 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 90 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

GMVSTBW 2,5/ 3-STF-7,62 - PCB connector

1848009

<https://www.phoenixcontact.com/us/products/1848009>



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 630 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: GMVSTBW 2,5/..-STF, pitch: 7.62 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: -90 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

GMSTBV 2,5/ 3-GF-7,62 - PCB header



1829167

<https://www.phoenixcontact.com/us/products/1829167>

GMSTB 2,5/ 3-STF-7,62 - PCB connector

1858772

<https://www.phoenixcontact.com/us/products/1858772>



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 630 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: GMSTB 2,5/..-STF, pitch: 7.62 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, locking clip: - without locking clip, plug-in system: COMBICON MSTB 2,5, locking: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

GFKC 2,5/ 3-STF-7,62 - PCB connector

1939756

<https://www.phoenixcontact.com/us/products/1939756>



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 630 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: GFKC 2,5/..-STF, pitch: 7.62 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

Phoenix Contact 2023 © - 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