GIC 2,5 HC/ 7-G-7,62 - PCB header

1745836

https://www.phoenixcontact.com/de/produkte/1745836

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PCB headers, nominal cross section: 2.5 mm^2, color: green, nominal current: 16 A, rated voltage (III/2): 630 V, contact surface: Tin, contact connection type: Socket, number of potentials: 7, number of rows: 1, number of positions: 7, number of connections: 7, product range: GIC 2,5 HC/..-G, pitch: 7.62 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.5 mm, number of solder pins per potential: 2, plug-in system: COMBICON MSTB 2,5 HC, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard

Your advantages

- Well-known mounting principle allows worldwide use
- Inverted header with socket contacts for touch-proof device outputs or PCB/PCB connections
- Integrated double steel spring provides additional safety in the event of temperature and power fluctuations

Commercial data

Item number	1745836
Packing unit	50 pc
Minimum order quantity	50 pc
Note	Made to order (non-returnable)
Sales key	E1 - Leiterplattenanschl.
Product key	AACSBE
Catalog page	Page 506 (C-1-2013)
GTIN	4046356310239
Weight per piece (including packing)	9,136 g
Weight per piece (excluding packing)	9,136 g
Customs tariff number	85366930
Country of origin	DE

Technical data

Product properties

Type	Standard
Product line	COMBICON Connectors M
Product type	PCB headers
Product family	GIC 2,5 HC/..-G
Number of positions	7
Pitch	7.62 mm
Number of connections	7
Number of rows	1
Mounting flange	without
Number of potentials	7
Pin layout	Linear pinning
Solder pins per potential	2

Electrical properties

Nominal current I_N	16 A
Nominal voltage U_N	630 V
Degree of pollution	3
Contact resistance	1.3 mΩ
Rated voltage (III/3)	630 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)	1000 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	hot-dip tin-plated
Metal surface contact area (top layer)	Tin (4 - 8 µm Sn)
Metal surface soldering area (top layer)	Tin (4 - 8 µm Sn)

Material data - housing

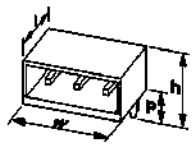
Color (Housing)	green (6021)
Insulating material	PA

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]	53.34 mm
Height [h]	13.7 mm
Length [l]	19 mm
Installed height	10.2 mm
Solder pin length [P]	3.5 mm
Pin dimensions	0.47 x 1.14 mm

PCB design

Pin spacing	5.04 mm
Hole diameter	1.4 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

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.	9 N
Withdraw strength per pos. approx.	8 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)	630 V
Rated surge voltage (III/3)	6 kV
minimum clearance value - non-homogenous field (III/3)	5.5 mm
minimum creepage distance (III/3)	8 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)	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

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	1.3 mΩ
Contact resistance R_2	1.5 mΩ
Insertion/withdrawal cycles	50
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	105 °C/168 h
Power-frequency withstand voltage	3.31 kV

Ambient conditions

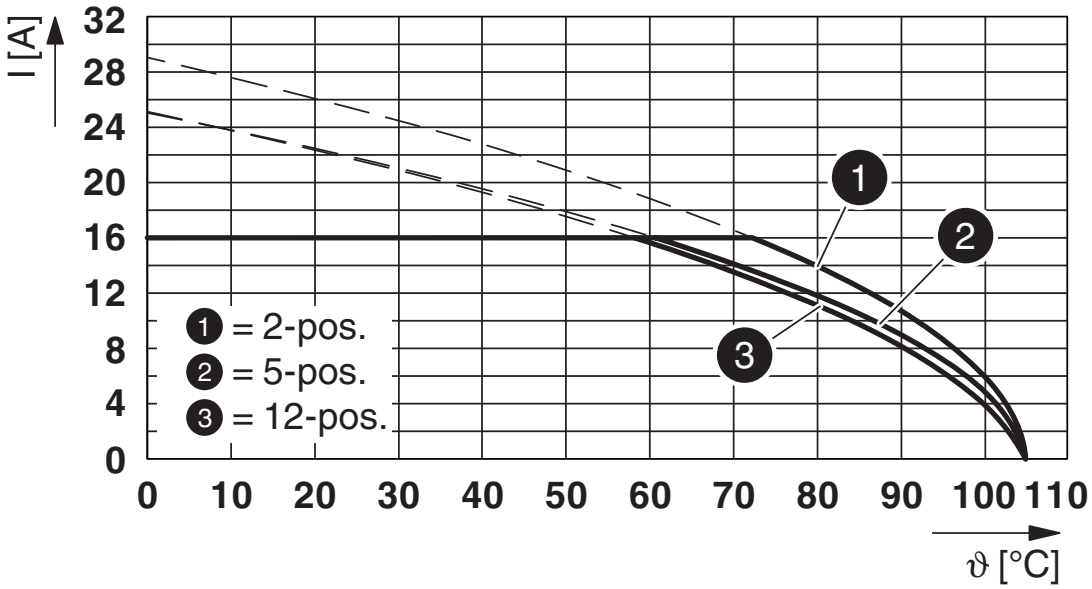
Ambient temperature (operation)	-40 °C ... 105 °C (dependent on the derating curve)
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C

Packaging specifications

Type of packaging	packed in cardboard

Drawings

Diagram



Type: GIC 2,5 HCV/...-ST-7,62 with GIC 2,5 HC/...-G-7,62

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/de/produkte/1745836

EAC
Approval ID: B.01687

cULus Recognized
Approval ID: E60425-19931014

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B				
	250 V	16 A	-	-
Use group D				
	300 V	10 A	-	-

VDE Zeichengenehmigung
Approval ID: 40050079

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	400 V	16 A	-	-

Classifications

ECLASS

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

ETIM

ETIM 8.0	EC002637

UNSPSC

UNSPSC 21.0	39121400

Environmental product compliance

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

Accessories

GIC 2,5 HCV/ 7-ST-7,62 - PCB connector

1745674

https://www.phoenixcontact.com/de/produkte/1745674

PCB connector, nominal cross section: 2.5 mm^2, color: green, nominal current: 16 A, rated voltage (III/2): 1000 V, contact surface: Tin, contact connection type: Pin, number of potentials: 7, number of rows: 1, number of positions: 7, number of connections: 7, product range: GIC 2,5 HCV/..-ST, 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 HC, locking: without, mounting: without, type of packaging: packed in cardboard

GMSTBA 2,5 HC/ 7-G-7,62 - PCB header

1728905

https://www.phoenixcontact.com/de/produkte/1728905

PCB headers, nominal cross section: 2.5 mm^2, color: green, nominal current: 16 A, rated voltage (III/2): 630 V, contact surface: Tin, contact connection type: Pin, number of potentials: 7, number of rows: 1, number of positions: 7, number of connections: 7, product range: GMSTBA 2,5 HC/..-G, pitch: 7.62 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.2 mm, number of solder pins per potential: 1, plug-in system: COMBICON MSTB 2,5 HC, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard

GIC 2,5 HC/ 7-G-7,62 - PCB header

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GMSTBVA 2,5 HC/ 7-G-7,62 - PCB header

1792407

https://www.phoenixcontact.com/de/produkte/1792407

PCB headers, nominal cross section: 2.5 mm^2, color: green, nominal current: 16 A, rated voltage (III/2): 630 V, contact surface: Tin, contact connection type: Pin, number of potentials: 7, number of rows: 1, number of positions: 7, number of connections: 7, product range: GMSTBVA 2,5 HC/..-G, 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 HC, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard

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