

ICC25-H/5R3,5-5015 - PCB header



1643166

<https://www.phoenixcontact.com/gb/products/1643166>

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PCB headers, color: blue, nominal current: 8 A, rated voltage (III/2): 150 V, contact surface: Sn, contact connection type: Pin, number of potentials: 5, number of rows: 1, number of positions: 5, number of connections: 5, product range: ICC...H/...R3,5, pitch: 3.5 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 2.8 mm, number of solder pins per potential: 1, plug-in system: ICC 1,5, Pin connector pattern alignment: Standard, locking: Snap-in locking, mounting method: without, type of packaging: Box packaging, Product with pin output on right side

Your advantages

- Variable coding, for reliable protection against incorrect connection
- Designed for integration into the wave soldering process
- Easy and fast push-in mounting of assembled printed-circuit boards, thanks to stable guide rails
- Quick and easily coded when initially connecting the connector and header

Commercial data

Item number	1643166
Packing unit	50 pc
Minimum order quantity	50 pc
Note	Made to order (non-returnable)
Sales key	ACHAFB
Product key	ACHAFB
GTIN	4067923171077
Weight per piece (including packing)	4.71 g
Weight per piece (excluding packing)	3.37 g
Customs tariff number	85366930
Country of origin	PL

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Technical data

Product properties

Product type	PCB headers
Product family	ICC...-H/..R3,5
Type	Header perpendicular to the PCB
Number of positions	5
Pitch	3.5 mm
Number of connections	5
Number of rows	1
Number of potentials	5
Pin layout	Linear pinning
Solder pins per potential	1

Electrical properties

Properties

Nominal current I_N	8 A
Contact resistance	1.76 mΩ
Rated voltage (III/3)	150 V
Rated surge voltage (III/3)	2.5 kV
Rated voltage (III/2)	150 V
Rated surge voltage (III/2)	2.5 kV
Rated voltage (II/2)	250 V
Rated surge voltage (II/2)	2.5 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 terminal point (top layer)	Tin (2 - 4 μm Sn)
Metal surface terminal point (middle layer)	Nickel (1.3 - 3 μm Ni)
Metal surface contact area (top layer)	Tin (2 - 4 μm Sn)
Metal surface contact area (middle layer)	Nickel (1.3 - 3 μm Ni)
Metal surface soldering area (top layer)	Tin (2 - 4 μm Sn)
Metal surface soldering area (middle layer)	Nickel (1.3 - 3 μm Ni)

Material data - housing

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Color (Housing)	blue (5015)
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

Assembly note	Please observe the application note in the download area.
General	Further information and detailed dimensions are available in the download area.

Dimensions

Dimensional drawing	
Pitch	3.5 mm
Width [w]	25 mm
Height [h]	22.4 mm
Length [l]	20.22 mm
Solder pin length [P]	2.8 mm
Pin dimensions	0.8 x 0.8 mm

PCB design

Hole diameter	1.2 mm
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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

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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.	7.2 N
Withdraw strength per pos. approx.	5.4 N

Electrical tests

Thermal test | Test group C

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

Insulation resistance

Specification	IEC 60512-3-1:2002-02
Insulation resistance, neighboring positions	> 3 TΩ

Air clearances and creepage distances |

Insulating material group	I
Rated insulation voltage (III/3)	150 V
Rated surge voltage (III/3)	2.5 kV
Rated insulation voltage (III/2)	150 V
Rated surge voltage (III/2)	2.5 kV
Rated insulation voltage (II/2)	250 V
Rated surge voltage (II/2)	2.5 kV

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)
Test duration per axis	2.5 h
Test directions	X-, Y- and Z-axis

Durability test

Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	2.95 kV
Contact resistance R ₁	1.76 mΩ

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Contact resistance R_2	1.82 m Ω
Insertion/withdrawal cycles	25
Insulation resistance, neighboring positions	> 3 T Ω

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	1.54 kV

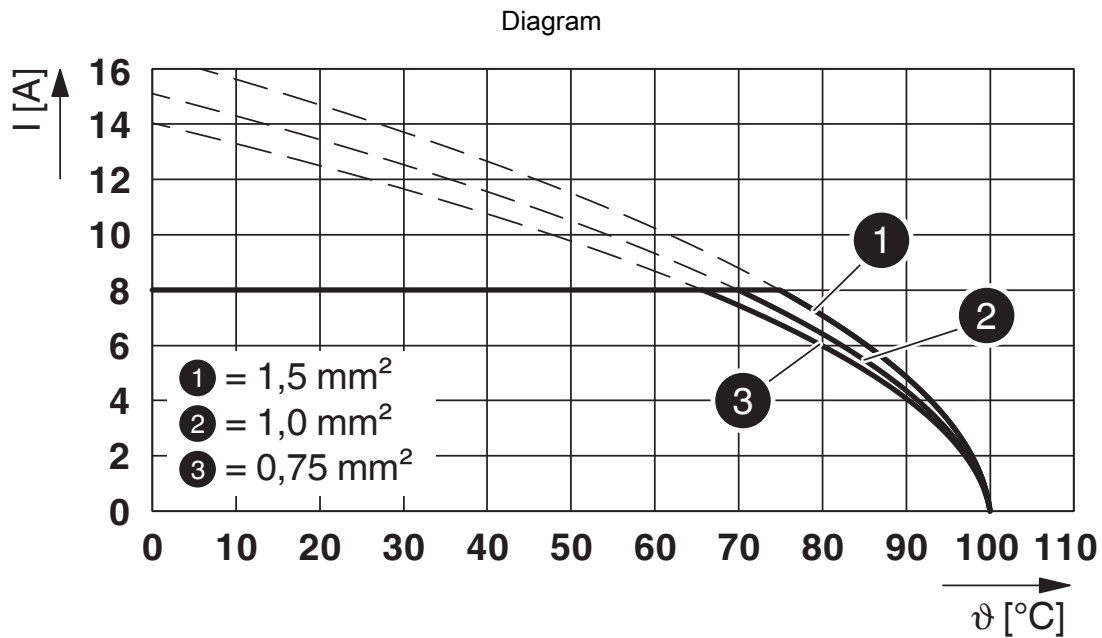
Ambient conditions

Ambient temperature (operation)	-40 °C ... 105 °C (dependent on the derating curve)
Ambient temperature (storage/transport)	-40 °C ... 55 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C

Packaging specifications

Type of packaging	Box packaging
Outer packaging type	Carton

Drawings



Type: ICC20(25)-PSC1,5/...-3,5-... with ICC20(25)-H/...L(R)3,5-...

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/gb/products/1643166>

<div> cULus Recognized Approval ID: E60425-20181123</div>				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B				
	300 V	8 A	-	-
Use group C				
	50 V	8 A	-	-

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Classifications

ECLASS

ECLASS-13.0	27460201
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ETIM

ETIM 9.0	EC002637
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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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