PCB header - IC 2,5/ 5-G-5,08 - 1786433

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The figure shows a 10-position version of the product

PCB headers, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of potentials: 5, Number of rows: 1, Number of positions per row: 5, number of connections: 5, product range: IC 2,5/..-G, pitch: 5.08 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.5 mm, plug-in system: CLASSIC COMBICON, Pin connector pattern alignment: Standard, Locking: without, mounting: without, type of packaging: packed in cardboard

Your advantages

- Maximum flexibility when it comes to device design – one header for connectors with different connection technologies
- Easy PCB replacement thanks to plug-in modules
- Well-known mounting principle allows worldwide use
- Inverted header with socket contacts for touch-proof device outputs or PCB/PCB connections

Key Commercial Data

Packing unit	50 pc
GTIN	4 017918 042585
GTIN	4017918042585

Technical data

Item properties

Brief article description	PCB header
Connector system	CLASSIC COMBICON
Type of contact	Female connector
Range of articles	IC 2,5/..-G
Pitch	5.08 mm
Number of positions	5
Mounting type	Wave soldering
Pin layout	Linear pinning
Locking	without
Number of levels	1
Number of connections	5

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Technical data

Item properties

Number of potentials	5
Pin connector pattern alignment	Standard

Electrical parameters

Nominal current	12 A
Nom. voltage	320 V
Rated voltage (III/3)	320 V
Rated voltage (III/2)	320 V
Rated voltage (II/2)	630 V
Rated surge voltage (III/3)	4 kV
Rated surge voltage (III/2)	4 kV
Rated surge voltage (II/2)	4 kV

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

Housing color	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

Dimensions for the product

Caption	Schematische Abbildung - weitere Details siehe Produktfamilienzeichnung im Download Center
Length [l]	18.9 mm
Width [w]	27.4 mm
Height [h]	13.7 mm
Pitch	5.08 mm
Height (without solder pin)	10.2 mm
Solder pin [P]	3.5 mm
Pin spacing	5.04 mm
Pin dimensions	0.48 x 1.14 mm

Dimensions for PCB design

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Dimensions for PCB design

Hole diameter	1.4 mm
Pin spacing	5.04 mm

Packaging information

Type of packaging	packed in cardboard
Pieces per package	50
Denomination packing units	Pcs.
Outer packaging type	Carton

General product information

Type of note	Notes on operation
Note	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.

Ambient conditions

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

Air clearances and creepage distances

Clearances and creepage distances	IEC 60664-1:2007-04
Specification	IEC 60664-1:2007-04
Minimum clearance - inhomogeneous field (III/3)	3 mm
Minimum clearance - inhomogeneous field (III/2)	3 mm
Minimum clearance - inhomogeneous field (II/2)	3 mm
Minimum creepage distance value (III/3)	4 mm
Minimum creepage distance value (III/2)	3 mm
Minimum creepage distance value (II/2)	3.2 mm

Mechanical tests (A)

Test specification	IEC 61984
Insertion strength per pos. approx.	8 N
Withdraw strength per pos. approx.	6 N
Polarization when inserted requirement >20 N	Test passed
Contact holder in insert requirements >20 N	Test passed

Durability tests (B)

Specification	IEC 60512-9-1:2010-03
Contact resistance R_1	1.2 mΩ
Insertion/withdrawal cycles	25
Contact resistance R_2	1.2 mΩ
Impulse withstand voltage at sea level	4.8 kV

Thermal tests (C)

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Technical data

Thermal tests (C)

Specification	IEC 60512-5-1:2002-02
Number of positions	24
Upper limiting temperature requirements <100 °C	Test passed

Climatic tests (D)

Specification	ISO 6988:1985-02
Cold stress	-40 °C/2 h
Thermal stress	100 °C/168 h
Corrosive stress	0.2 dm^3 SO_2 on 300 dm^3/40 °C/1 cycle
Impulse withstand voltage at sea level	4.8 kV
Power-frequency withstand voltage	2.21 kV

Environmental and durability tests (E)

Specification	IEC 61984:2008-10
Result, degree of protection, IP code	Finger safety with IP20 test finger

Vibration test

Specification	IEC 60068-2-6:2007-12
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 - 60.1 Hz)
Acceleration	5g (60.1 - 150 Hz)
Test duration per axis	2.5 h

Standards and Regulations

Connection in acc. with standard	EN-VDE
	CSA
Flammability rating according to UL 94	V0

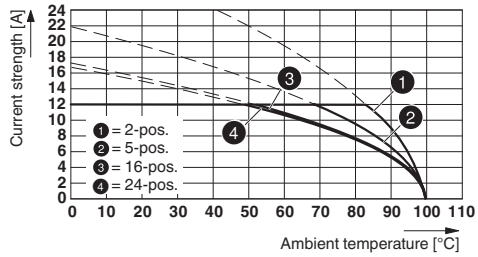
Environmental Product Compliance

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

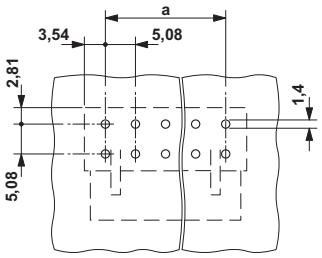
Drawings

PCB header - IC 2,5/ 5-G-5,08 - 1786433

Diagram

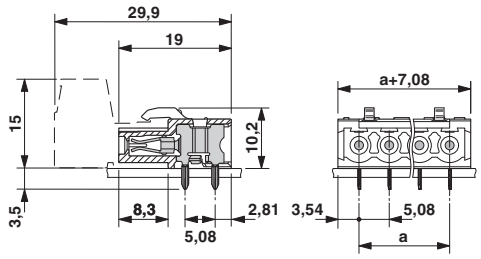


Drilling diagram

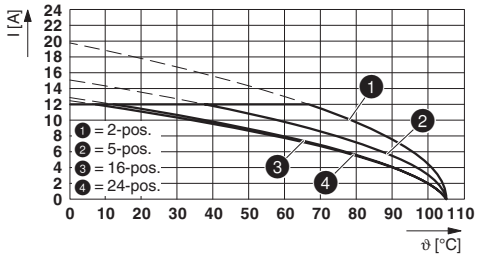


Type: IC 2,5/..-G-5,08 with MSTBA 2,5/..-G-5,08

Dimensional drawing

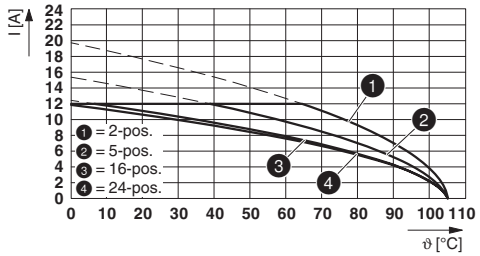


Diagram



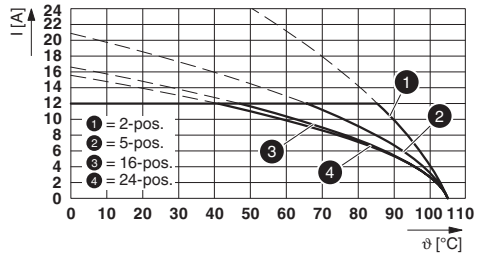
Type: IC 2,5/...-G-5,08 with MSTBV 2,5/...-G-5,08

Diagram



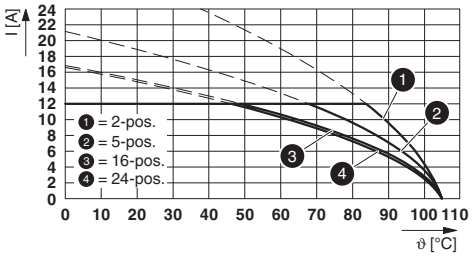
Type: IC 2,5/...-G-5,08 with MSTBVA 2,5/...-G-5,08

Diagram



Type: IC 2,5/...-G-5,08 with MSTBW 2,5/...-G-5,08

Diagram



Type: IC 2,5/...-G-5,08 with MSTB 2,5/...-G-5,08

PCB header - IC 2,5/ 5-G-5,08 - 1786433

Classifications

eCl@ss

eCl@ss 10.0.1	27440402
eCl@ss 11.0	27460201
eCl@ss 4.0	27260700
eCl@ss 4.1	27260700
eCl@ss 5.0	27260700
eCl@ss 5.1	27260700
eCl@ss 6.0	27260700
eCl@ss 7.0	27440402
eCl@ss 9.0	27440402

ETIM

ETIM 3.0	EC001121
ETIM 4.0	EC002637
ETIM 6.0	EC002637
ETIM 7.0	EC002637

UNSPSC

UNSPSC 6.01	30211810
UNSPSC 7.0901	39121409
UNSPSC 11	39121409
UNSPSC 12.01	39121409
UNSPSC 13.2	39121409
UNSPSC 18.0	39121409
UNSPSC 19.0	39121409
UNSPSC 20.0	39121409
UNSPSC 21.0	39121409

Approvals

Approvals

Approvals

VDE Zeichengenehmigung / CSA / IECEE CB Scheme / EAC / cULus Recognized

Ex Approvals

Approval details

PCB header - IC 2,5/ 5-G-5,08 - 1786433

Approvals

VDE Zeichengenehmigung		http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx	40050648

Nominal voltage UN	250 V
Nominal current IN	12 A

CSA		http://www.csagroup.org/services-industries/product-listing/	13631

	B	D
Nominal voltage UN	300 V	300 V
Nominal current IN	10 A	10 A

IECEE CB Scheme		http://www.iecee.org/	DE1-60988-B1B2

Nominal voltage UN	250 V
Nominal current IN	12 A

EAC		B.01687

cULus Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	E60425-19931014

	B	D
Nominal voltage UN	250 V	300 V
Nominal current IN	12 A	10 A

Accessories

Accessories

Coding element

Coding profile - CP-MSTB - 1734634

Coding profile, is inserted into the slot on the plug or inverted header, red insulating material

PCB header - IC 2,5/ 5-G-5,08 - 1786433

Accessories

Additional products

Printed-circuit board connector - DFK-MSTBA 2,5/ 5-G-5,08 - 1898868

Feed-through header, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, number of potentials: 5, Number of rows: 1, Number of positions per row: 5, number of connections: 5, product range: DFK-MSTBA 2,5/..-G, pitch: 5.08 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.2 mm, plug-in system: CLASSIC COMBICON, Pin connector pattern alignment: Standard, Locking: without, mounting: without, type of packaging: packed in cardboard

PCB header - MSTBO 2,5/ 5-GR-5,08 - 1847136

PCB headers, nominal cross section: 2.5 mm², color: green, nominal current: 8 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, number of potentials: 5, Number of rows: 1, Number of positions per row: 5, number of connections: 5, product range: MSTBO 2,5/..-GR, pitch: 5.08 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.2 mm, plug-in system: CLASSIC COMBICON, Locking: without, mounting: without, type of packaging: packed in cardboard

Printed-circuit board connector - FKIC 2,5/ 5-ST-5,08 - 1873388

PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, number of potentials: 5, Number of rows: 1, Number of positions per row: 5, number of connections: 5, product range: FKIC 2,5/..-ST, pitch: 5.08 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, Locking clip: - without locking clip, plug-in system: CLASSIC COMBICON, Locking: without, mounting: without, type of packaging: packed in cardboard

Printed-circuit board connector - MSTBA 2,5/ 5-G-5,08 - 1757271

PCB headers, nominal cross section: 2.5 mm², nominal current: 12 A, rated voltage (III/2): 320 V, type of contact: Male connector, number of potentials: 5, Number of rows: 1, Number of positions per row: 5, number of connections: 5, product range: MSTBA 2,5/..-G, pitch: 5.08 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.5 mm, plug-in system: CLASSIC COMBICON, Pin connector pattern alignment: Standard, Locking: without, mounting: without

PCB header - SMSTBA 2,5/ 5-G-5,08 - 1767407

PCB headers, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, number of potentials: 5, Number of rows: 1, Number of positions per row: 5, number of connections: 5, product range: SMSTBA 2,5/..-G, pitch: 5.08 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.5 mm, plug-in system: CLASSIC COMBICON, Pin connector pattern alignment: Standard, Locking: without, mounting: without, type of packaging: packed in cardboard

PCB header - IC 2,5/ 5-G-5,08 - 1786433

Accessories

Printed-circuit board connector - SMSTB 2,5/ 5-G-5,08 - 1769492

PCB headers, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, number of potentials: 5, Number of rows: 1, Number of positions per row: 5, number of connections: 5, product range: SMSTB 2,5/..-G, pitch: 5.08 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.5 mm, plug-in system: CLASSIC COMBICON, Pin connector pattern alignment: Standard, Locking: without, mounting: without, type of packaging: packed in cardboard

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Printed-circuit board connector - ICC 2,5/ 5-STZ-5,08 - 1823875

PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, type of contact: Male connector, number of potentials: 5, Number of rows: 1, Number of positions per row: 5, number of connections: 5, product range: ICC 2,5/..-STZ, pitch: 5.08 mm, connection method: Crimp connection, conductor/PCB connection direction: 0 °, Locking clip: - without locking clip, plug-in system: CLASSIC COMBICON, Locking: Snap-in locking, mounting: Engagement nose, type of packaging: packed in cardboard, Corresponding male crimp contacts with current [A] and conductor cross section range [mm²] data: 10A/ICC-MT 0,5-1,0 (3190577); 10A/ICC-MT 0,5-1,0 BA (3190603); 12A/ICC-MT 1,5-2,5 (3190580); 12A/ICC-MT 1,5-2,5 BA (3190593). BA = Bandkontakte

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