

# ICV 2,5/ 8-GF-5,08 EX - PCB header



1810502

<https://www.phoenixcontact.com/de/produkte/1810502>

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PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, contact surface: Tin, contact connection type: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: ICV 2,5/..-GF-EX, pitch: 5.08 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.6 mm, number of solder pins per potential: 2, plug-in system: COMBICON MSTB 2,5 EX, Pin connector pattern alignment: Standard, locking: Screw locking mechanism, 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
- Easy PCB replacement thanks to plug-in modules
- Screwable flange for superior mechanical stability
- Satisfies the more stringent safety requirements of "Ex eb" protection according to IEC 60079-7 for potentially explosive areas

## Commercial data

Item number	1810502
Packing unit	50 pc
Minimum order quantity	50 pc
Note	Made to order (non-returnable)
Sales key	E1 - Leiterplattenanschl.
Product key	AACSAJ
Catalog page	Page 377 (C-1-2013)
GTIN	4046356706834
Weight per piece (including packing)	9,295 g
Weight per piece (excluding packing)	9,295 g
Customs tariff number	85366930
Country of origin	DE

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## Technical data

### Product properties

Type	Inverted
Product line	COMBICON Connectors M
Product type	PCB headers
Product family	ICV 2,5/...GF-EX
Number of positions	8
Pitch	5.08 mm
Number of connections	8
Number of rows	1
Mounting flange	Threaded flange
Number of potentials	8
Pin layout	Linear pinning
Solder pins per potential	2

### Electrical properties

Nominal current $I_N$	12 A
Nominal voltage $U_N$	176 V
Rated current / conductor cross section	12 A/2.5 mm <sup>2</sup>
Degree of pollution	3

### Ex data

#### Ex approval

Identification	0344 <sup>Ⓢ</sup> II 2GD / Ex eb IIC Gb
EU-type examination certificate	KEMA 10ATEX0196 U
IECEx certificate	IECEx KEM 10.0093U

### Mounting

Mounting type	Wave soldering
Pin layout	Linear pinning

#### Flange

Tightening torque	0.3 Nm
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#### 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

### Material specifications

#### Material data - contact

Note	WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/JEDEC JESD 201
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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)

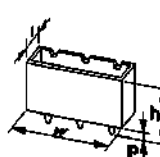
## Material data - housing

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.
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## Dimensions

Dimensional drawing	
Pitch	5.08 mm
Width [w]	50.76 mm
Height [h]	22.6 mm
Length [l]	10.2 mm
Installed height	19 mm
Solder pin length [P]	3.6 mm
Pin dimensions	1.2 x 0.5 mm

## PCB design

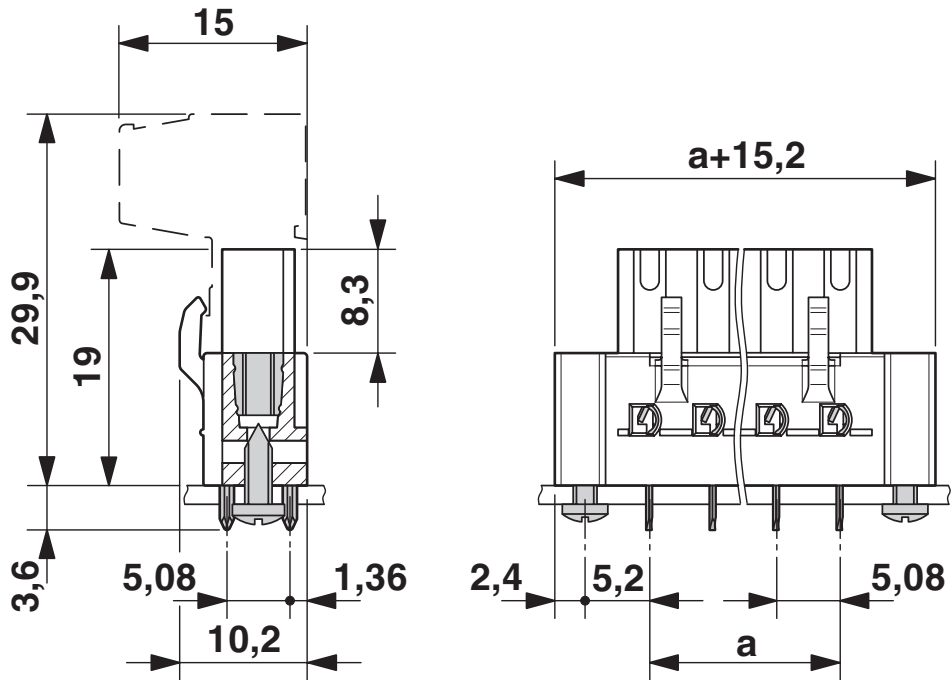
Pin spacing	5.08 mm
Hole diameter	1.4 mm

## Packaging specifications

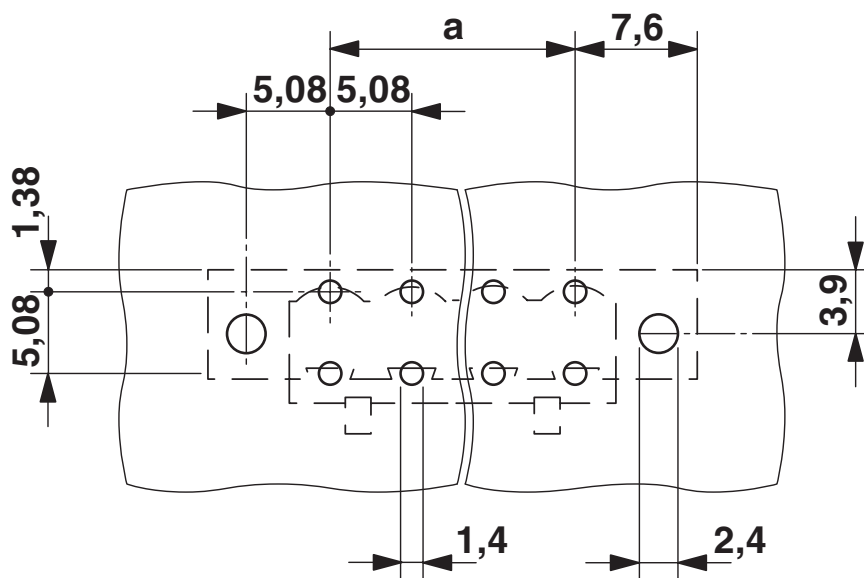
Type of packaging	packed in cardboard
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Drawings

Dimensional drawing



Drilling plan/solder pad geometry



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/de/produkte/1810502>

 <b>cULus Recognized</b> Approval ID: E60425-19931014				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
Use group B	250 V	12 A	-	-
Use group D	300 V	10 A	-	-

 <b>ATEX</b> Approval ID: KEMA 10ATEX0196 U				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	176 V	12 A	-	0.2 - 2.5

 <b>IECEX</b> Approval ID: IECEX KEM 10.0093U				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	176 V	12 A	-	0.2 - 2.5

 <b>EAC Ex</b> Approval ID: B.00065/19				
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 <b>CCC</b> Approval ID: 2021122313114375				
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## Classifications

### ECLASS

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

### ETIM

ETIM 8.0	EC002637
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### UNSPSC

UNSPSC 21.0	39121400
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## Environmental product compliance

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

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## Accessories

### MPS-MT - Test plugs

0201744

<https://www.phoenixcontact.com/de/produkte/0201744>



Test plugs, with solder connection up to 1 mm<sup>2</sup> conductor cross section, number of positions: 1, color: gray

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### RPS - Reducing plug

0201647

<https://www.phoenixcontact.com/de/produkte/0201647>



Reducing plug, number of positions: 1, color: gray

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## CP-MSTB - Coding profile

1734634

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



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