

# DFK-IPCV 16/ 6-G-10,16 - Feed-through header



1703098

<https://www.phoenixcontact.com/pc/products/1703098>

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Feed-through header, nominal cross section: 16 mm<sup>2</sup>, color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Silver, type of contact: Socket, number of potentials: 6, number of rows: 1, number of positions: 6, number of connections: 6, product range: DFK-IPCV 16/..-G, pitch: 10.16 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 4.1 mm, number of solder pins per potential: 3, plug-in system: COMBICON PC 16, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard

## Your advantages

- Well-known mounting principle allows worldwide use
- Flange system enables secure fixing to the housing panel by means of tool-free snap-in locking or screws
- 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	1703098
Packing unit	10 pc
Minimum order quantity	1 pc
Note	Made to Order (non-returnable)
Product Key	AAEWAG
Catalog Page	Page 581 (C-1-2013)
GTIN	4046356031684
Weight per Piece (including packing)	33.64 g
Weight per Piece (excluding packing)	30.735 g
Customs tariff number	85366990
Country of origin	PL

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## Technical Data

### Product properties

Type	Feed-through header
Product line	COMBICON Connectors XL
Product type	Feed-through header
Product family	DFK-IPCV 16/..-G
Number of positions	6
Pitch	10.16 mm
Number of connections	6
Number of rows	1
Mounting flange	without
Number of potentials	6
Pin layout	Linear pinning
Solder pins per potential	3

### Electrical properties

Nominal current $I_N$	76 A
Nominal voltage $U_N$	1000 V
Degree of pollution	3
Rated voltage (III/3)	1000 V
Rated surge voltage (III/3)	8 kV
Rated voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 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	completely silver-plated
Metal surface contact area (top layer)	Silver (4 - 8 $\mu\text{m}$ Ag)
Metal surface soldering area (top layer)	Silver (4 - 8 $\mu\text{m}$ Ag)

#### Material data - housing

Color (Housing)	green (6021)
Insulating material	PA
Insulating material group	I

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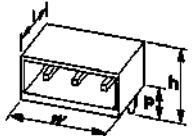
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CTI according to IEC 60112	600
Flammability rating according to UL 94	V0
Glow wire flammability index GWFI according to EN 60695-2-12	850
Glow wire ignition temperature GWIT according to EN 60695-2-13	775
Temperature for the ball pressure test according 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	10.16 mm
Width [w]	85.08 mm
Height [h]	51.05 mm
Length [l]	22 mm
Installed height	46.95 mm
Solder pin length [P]	4.1 mm
Pin dimensions	0.8 x 1.2 mm

## PCB design

Pin spacing	10.16 mm
Hole diameter	1.7 mm

## Electrical tests

### 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)	1000 V
Rated surge voltage (III/3)	8 kV
minimum clearance value - non-homogenous field (III/3)	8 mm
minimum creepage distance (III/3)	12.5 mm
Rated insulation voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV
minimum clearance value - non-homogenous field (III/2)	8 mm
minimum creepage distance (III/2)	8 mm
Rated insulation voltage (II/2)	1000 V

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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

### Ambient conditions

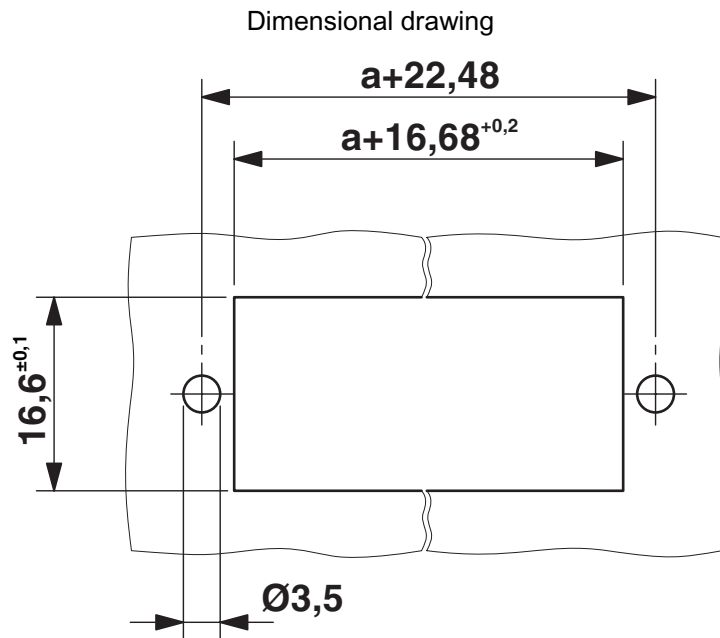
Ambient temperature (operation)	-40 °C ... 100 °C (dependent on the derating curve)
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C

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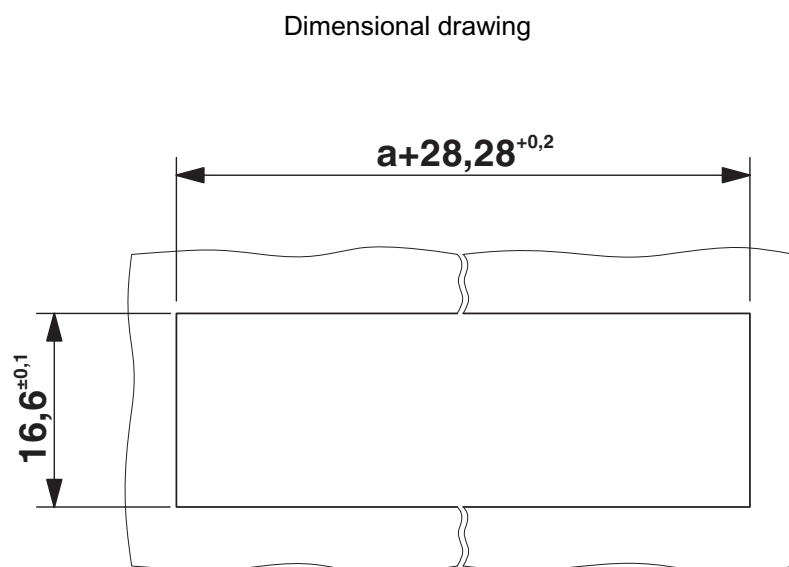
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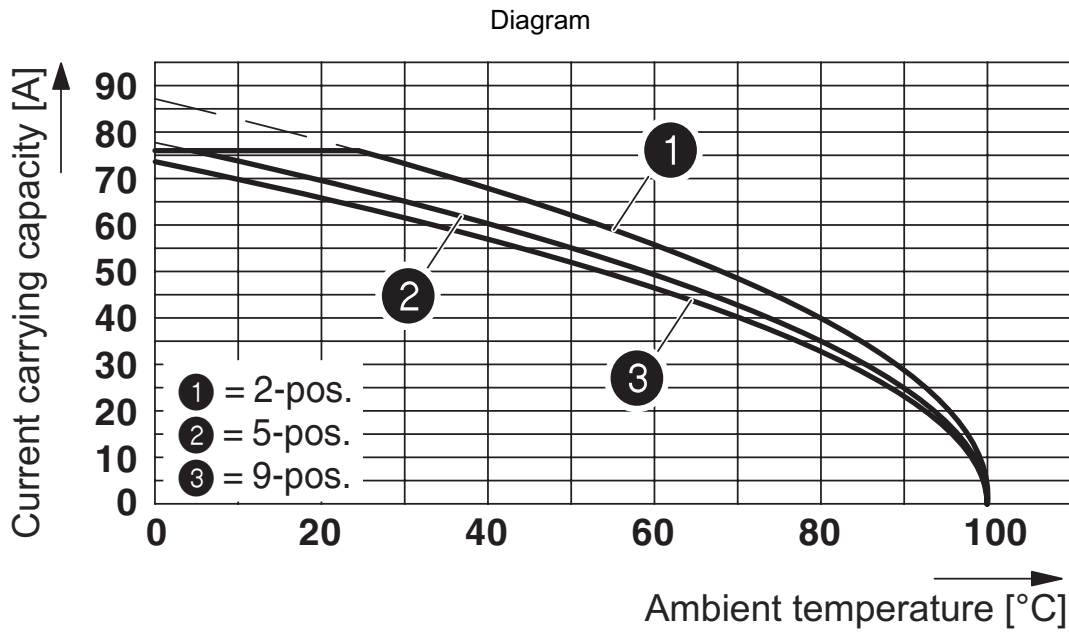
## Drawings



Sheet metal cutout for screw connection.

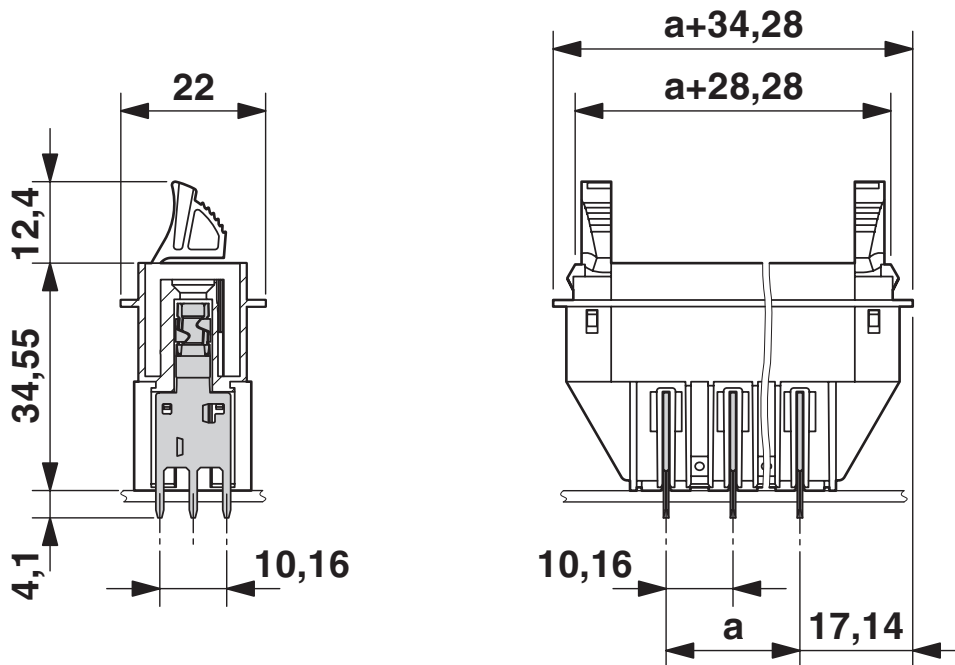


Sheet metal cutout for snap-on.



The figure shows the derating curve for DFK-IPC 16/...-G-10,16 inverted plugs in combination with the inverted header IPC 16/...-ST-10,16.

### Dimensional drawing



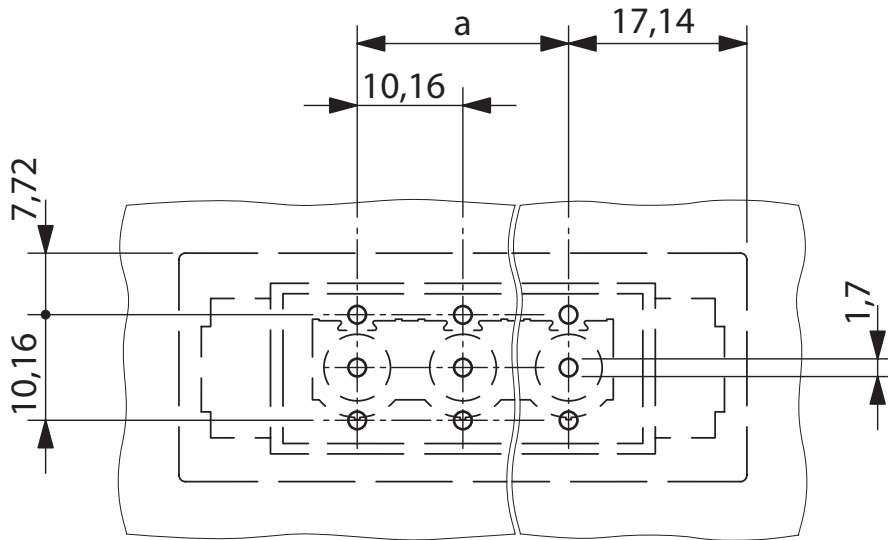
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Drilling plan/solder pad geometry



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/pc/products/1703098>



**EAC**

Approval ID: B.01687



**cULus Recognized**

Approval ID: E60425-20040202

	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
Use group B				
	300 V	55 A	-	-
Use group C				
	300 V	55 A	-	-
Use group D				
	600 V	5 A	-	-



**IECEE CB Scheme**

Approval ID: DE1-66677

	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
	1000 V	76 A	-	-



**VDE Zeichengenehmigung**

Approval ID: 40055586

	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
	1000 V	76 A	-	-

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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

### CP-PC RD - Coding profile

1701967

<https://www.phoenixcontact.com/pc/products/1701967>

Coding profile, for plugging into the coding ribs of the plug at a later date, insulating material, color: Red



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### DFK-PC 16-SS - Accessories

1705449

<https://www.phoenixcontact.com/pc/products/1705449>

Screw set for DFK-PC 16... connectors



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## SZK PH1 VDE - Screwdriver

1205150

<https://www.phoenixcontact.com/pc/products/1205150>



Screwdriver, PH crosshead, VDE insulated, size: PH 1 x 80 mm, 2-component grip, with non-slip grip

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## SZS 0,6X2,5 VDE - Screwdriver

1205040

<https://www.phoenixcontact.com/pc/products/1205040>



Screwdriver, slot-headed, VDE insulated, size: 0.6 x 2.5 x 80 mm, 2-component grip, with non-slip grip

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## DFK-PC MOUNT SET - Accessories

1054021

<https://www.phoenixcontact.com/pc/products/1054021>

Contains 20 pcs. latch and screw elements for feed-through connectors each



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## ISPC 16/ 6-ST-10,16 - PCB connector

1748587

<https://www.phoenixcontact.com/pc/products/1748587>



PCB connector, nominal cross section: 16 mm<sup>2</sup>, color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Silver, type of contact: Pin, number of potentials: 6, number of rows: 1, number of positions: 6, number of connections: 6, product range: ISPC 16/..-ST, pitch: 10.16 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, locking clip: - without locking clip, plug-in system: COMBICON PC 16, locking: without, mounting: without, type of packaging: packed in cardboard

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## IPC 16/ 6-ST-10,16 - PCB connector

1969412

<https://www.phoenixcontact.com/pc/products/1969412>



PCB connector, nominal cross section: 16 mm<sup>2</sup>, color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Silver, type of contact: Pin, number of potentials: 6, number of rows: 1, number of positions: 6, number of connections: 6, product range: IPC 16/..-ST, pitch: 10.16 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 PC 16, locking: without, mounting: without, type of packaging: packed in cardboard

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