

Panel feed-through terminal block - HDFKV 10-VP



0708946

<https://www.phoenixcontact.com/us/products/0708946>

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Panel feed-through terminal block, connection method: Screw connection with tension sleeve, Solder connection, number of positions: 1, load current: 57 A, cross section: 0.5 mm² - 16 mm², connection direction of the conductor to plug-in direction: -90 °, width: 10.1 mm, color: gray

Your advantages

- Well-known connection principle allows worldwide use
- Low temperature rise, thanks to maximum contact force
- Tool-free snap-in principle enables easy mounting on the device panel
- Automatic panel thickness compensation enables universal use
- Reliable seal even with low-viscosity molding compounds

Commercial Data

Item number	0708946
Packing unit	1 pc
Minimum order quantity	50 pc
Sales Key	A02
Product Key	AA1CAJ
Catalog Page	Page 638 (CC-2009)
GTIN	4017918004804
Weight per Piece (including packing)	13.85 g
Weight per Piece (excluding packing)	13.85 g
Customs tariff number	85369010
Country of origin	GR

Technical Data

Product properties

Product type	Panel feed-through terminal block
Number of positions	1
Pitch	10.1 mm
Number of connections	2
Number of rows	1
Number of potentials	1

Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Electrical properties

Nominal current I_N	57 A
Nominal voltage U_N	400 V (With metal panels of 1 mm ... 2.5 mm)
Pollution degree	3
Rated voltage (III/3)	400 V
Rated surge voltage (III/3)	6 kV

Connection data

Connection technology

Connector system	HDFK 10
Nominal cross section	10 mm ²

Conductor connection exterior

Connection method	Screw connection with tension sleeve
Connection direction of the conductor to plug-in direction	-90 °
Conductor cross section solid	0.5 mm ² ... 16 mm ²
Conductor cross section flexible	0.5 mm ² ... 10 mm ²
Conductor cross section flexible, with ferrule without plastic sleeve	0.5 mm ² ... 10 mm ²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.5 mm ² ... 10 mm ²
2 conductors with same cross section, solid	0.5 mm ² ... 4 mm ²
2 conductors with same cross section, flexible	0.5 mm ² ... 4 mm ²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.5 mm ² ... 2.5 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm ² ... 6 mm ²
Internal cylindrical gage	B6

Conductor connection interior

Connection method	Solder connection
Connection direction of the conductor to plug-in direction	0 °

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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

Material data - housing

Housing color	gray (7042)
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

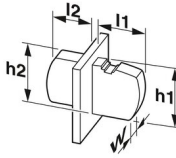
Notes

Notes on safety	The cable entry funnel is not touch-proof. Never connect or disconnect the terminal when it is energized. Take appropriate steps to ensure touch proofness.
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Safety note

Safety note	<ul style="list-style-type: none">Only electrically qualified personnel may install and operate the product. To recognize and prevent danger, the qualified personnel must be familiar with the basics of electrical engineering.
	<ul style="list-style-type: none">Observe the technical data provided here and refer to the documents listed under "Downloads". The download area contains important information, such as installation notes, technical drawings, and 3D data.
	<ul style="list-style-type: none">The cable entry funnel is not safe to touch. Never connect or disconnect the terminal when it is energized. Take appropriate steps to ensure touch protection.
	<ul style="list-style-type: none">To maintain the nominal voltage, cast the terminals on the inside.

Dimensions

Dimensional drawing	
Pitch	10.1 mm
Width [w]	10.1 mm

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Height [h]	30.5 mm
Length [l]	49.8 mm

External dimensions

Width [w]	10.1 mm
Height [h1]	30.5 mm
Length [l1]	31 mm

Mechanical tests

Test for conductor damage and slackening

Specification	IEC 60947-7-1:2009-04
Result	Test passed

Pull-out test

Specification	IEC 60947-7-1:2009-04
Conductor cross section/conductor type/tractive force setpoint/actual value	0.5 mm ² / solid / > 20 N
	0.5 mm ² / flexible / > 20 N
	16 mm ² / solid / > 100 N
	10 mm ² / flexible / > 90 N

Electrical tests

Temperature-rise test

Specification	IEC 60947-7-1:2009-04
Requirement temperature-rise test	Increase in temperature ≤ 45 K

Short-time withstand current

Specification	IEC 60947-7-1:2009-04
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Air clearances and creepage distances | 1. Insulation coordination

Application	Metal wall 1.0 mm ... 2.5 mm
Specification	IEC 60947-7-1:2009-04
Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	400 V
Rated surge voltage (III/3)	6 kV
minimum clearance value - non-homogenous field (III/3)	5.5 mm
minimum creepage distance (III/3)	5.5 mm

Air clearances and creepage distances | 2. Insulation coordination

Application	Metal wall > 2.5 mm ... 4.0 mm
Specification	IEC 60947-1:2007-06 + A1:2010-12
Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	250 V
Rated surge voltage (III/3)	4 kV

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minimum clearance value - non-homogenous field (III/3)	3 mm
minimum creepage distance (III/3)	3.2 mm

Air clearances and creepage distances | 3. Insulation coordination

Application	Plastic wall 1.0 ... 4.0 mm
Specification	IEC 60947-1:2007-06 + A1:2010-12
Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	500 V
Rated surge voltage (III/3)	6 kV
minimum clearance value - non-homogenous field (III/3)	5.5 mm
minimum creepage distance (III/3)	6.3 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 - 60.1 Hz)
Sweep speed	5g (60.1 - 150 Hz)
Test duration per axis	2.5 h

Glow-wire test

Specification	IEC 60695-2-11:2014-02
Temperature	960 °C
Time of exposure	30 s

Ambient conditions

Ambient temperature (operation)	-40 °C ... 100 °C (Depending on the current carrying capacity/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
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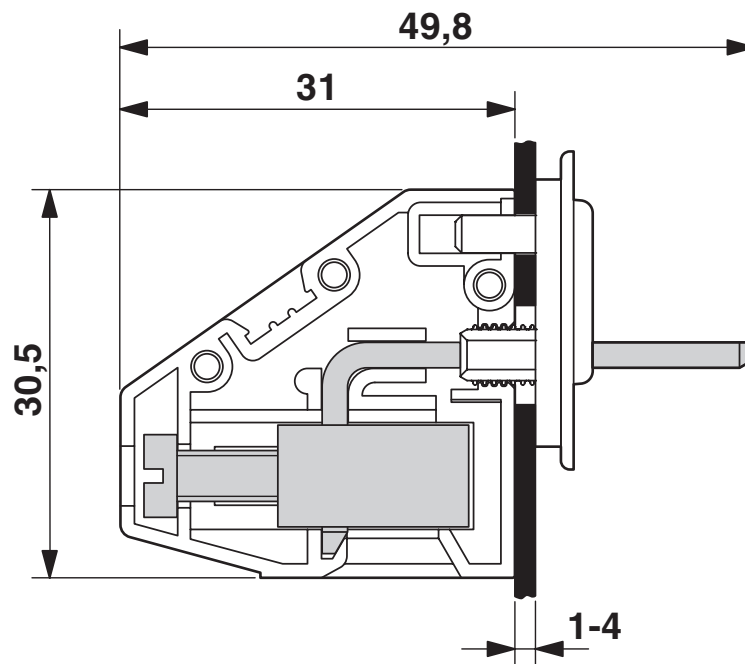
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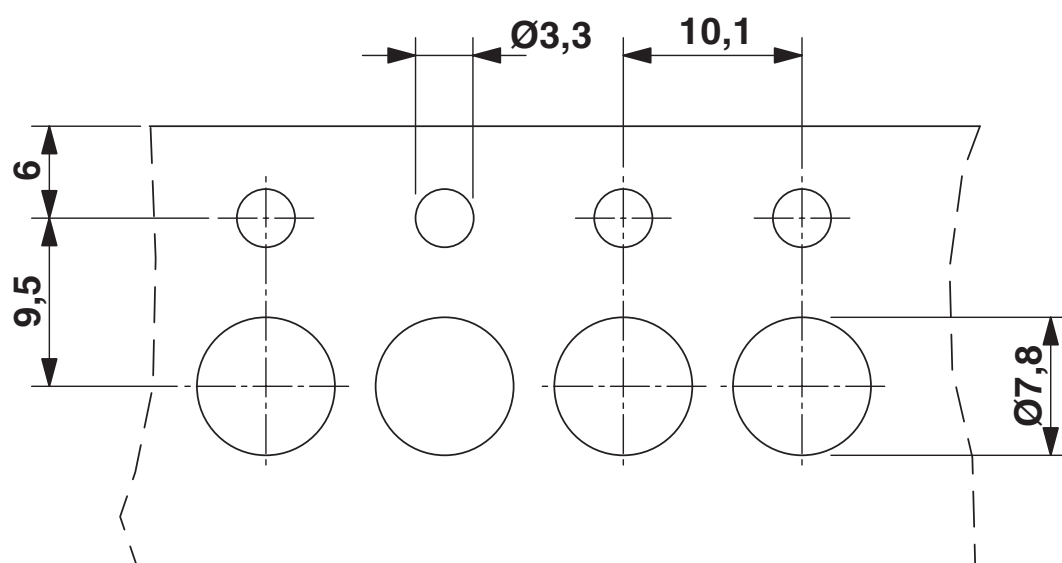
Drawings

Dimensional drawing



Side view

Dimensional drawing



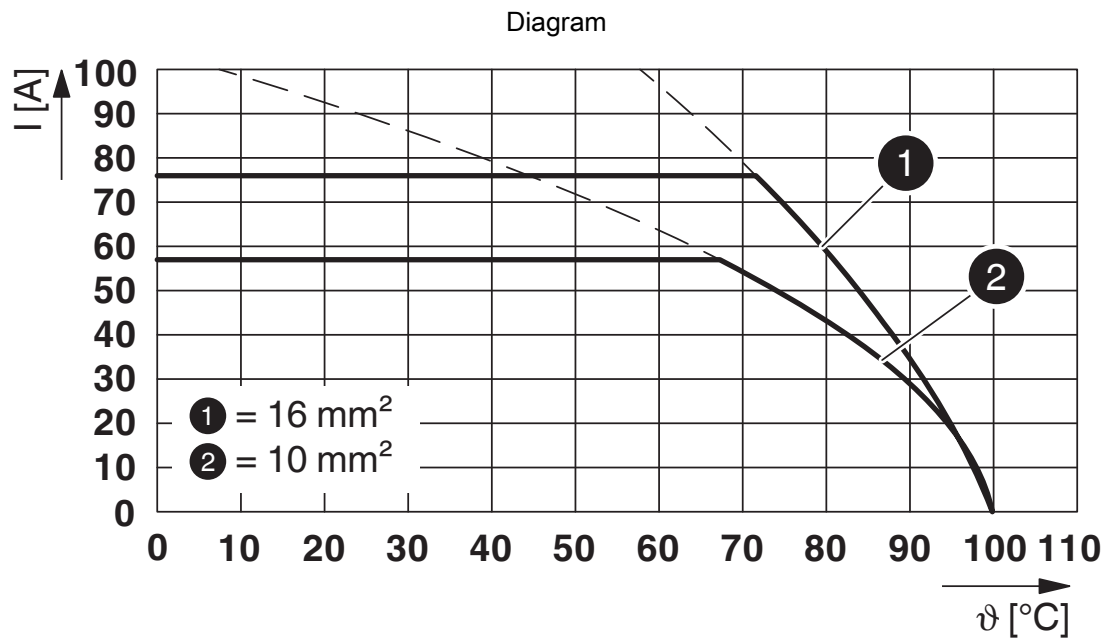
Panel feed-through

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Type: HDFKV 10-VP

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Approvals

CSA Approval ID: 13631				
	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	300 V	65 A	22 - 6	-

CB IECEE CB Scheme Approval ID: NL-29947				
	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	250 V	57 A	-	- 10

EAC EAC Approval ID: B.01687				
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cULus cULus Recognized Approval ID: E60425-19870911				
	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
Use group B				
	300 V	65 A	24 - 6	-
Use group D				
	300 V	10 A	24 - 6	-

KEMA-KEUR Approval ID: 2169260.01				
	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	250 V	57 A	-	- 10

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Classifications

ECLASS

ECLASS-9.0	27141134
ECLASS-10.0.1	27141134
ECLASS-11.0	27141134

ETIM

ETIM 8.0	EC001283
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UNSPSC

UNSPSC 21.0	39121400
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Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

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Accessories

 Note: Applying some accessories below might limit this product.

Insertion bridge

Insertion bridge - EB 2-10 - 0203153

<https://www.phoenixcontact.com/us/products/0203153>

Insertion bridge, pitch: 10 mm, color: gray



 Max. current carrying capacity: 70 A

Insertion bridge

Insertion bridge - EB 3-10 - 0203328

<https://www.phoenixcontact.com/us/products/0203328>

Insertion bridge, pitch: 10 mm, color: gray



 Max. current carrying capacity: 70 A

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Insertion bridge

Insertion bridge - EB 10-10 - 0203137

<https://www.phoenixcontact.com/us/products/0203137>

Insertion bridge, pitch: 10 mm, color: gray



 Max. current carrying capacity: 70 A

Screwdriver

Screwdriver - SZS 1,0X4,0 VDE - 1205066

<https://www.phoenixcontact.com/us/products/1205066>

Screwdriver, slot-headed, VDE insulated, size: 1.0 x 4.0 x 100 mm, 2-component grip, with non-slip grip



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