

# HDFK 16-VP - Panel feed-through terminal block



0709796

<https://www.phoenixcontact.com/in/products/0709796>

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Panel feed-through terminal block, connection method: Screw connection with tension sleeve, Cable lug connection, number of positions: 1, load current: 76 A, cross section: 0.5 mm<sup>2</sup> - 25 mm<sup>2</sup>, connection direction of the conductor to plug-in direction: 0 °, width: 12.1 mm

## 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	0709796
Packing unit	50 pc
Minimum order quantity	50 pc
Sales Key	AA1
Product Key	AA1DAB
Catalog Page	Page 635 (CC-2009)
GTIN	4017918153465
Weight per Piece (including packing)	27.3 g
Weight per Piece (excluding packing)	26.53 g
Customs tariff number	85369010
Country of origin	GR

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## Technical Data

### Product properties

Product type	Panel feed-through terminal block
Product family	HDFK 16-VP
Number of positions	1
Pitch	12.1 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 $I_N$	76 A
Nominal voltage $U_N$	500 V
Degree of pollution	3
Rated voltage (III/3)	500 V
Rated surge voltage (III/3)	6 kV

### Connection data

#### Connection technology

Connector system	HDFK 16
Nominal cross section	16 mm <sup>2</sup>

#### Conductor connection exterior

Connection method	Screw connection with tension sleeve
Connection direction of the conductor to plug-in direction	0 °
Conductor cross section rigid	0.5 mm <sup>2</sup> ... 25 mm <sup>2</sup>
Conductor cross section flexible	0.5 mm <sup>2</sup> ... 16 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve	0.5 mm <sup>2</sup> ... 16 mm <sup>2</sup>
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.5 mm <sup>2</sup> ... 16 mm <sup>2</sup>
2 conductors with same cross section, solid	0.5 mm <sup>2</sup> ... 6 mm <sup>2</sup>
2 conductors with same cross section, flexible	0.5 mm <sup>2</sup> ... 6 mm <sup>2</sup>
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.5 mm <sup>2</sup> ... 6 mm <sup>2</sup>
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm <sup>2</sup> ... 6 mm <sup>2</sup>
Internal cylindrical gage	B7
Stripping length	16 mm
Tightening torque	2 Nm ... 2.3 Nm

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## Conductor connection interior

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

## 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

Color (Housing)	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

### Material data – actuating element

Color ()	()
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## Notes

### Safety note

Safety note	<ul style="list-style-type: none"><li>• 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.</li><li>• The installation notes/Design In documents online on the download page at <a href="https://www.phoenixcontact.com/products">phoenixcontact.com/products</a> must be observed for this product.</li><li>• 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.</li><li>• To maintain the nominal voltage, align the cable lugs straight and centered, and cast the terminals on the inside.</li></ul> <p><input type="checkbox"/> There is no electrical contact to the housing. Make sure that protective grounding is provided for green/yellow color variants and articles marked with PE.</p>
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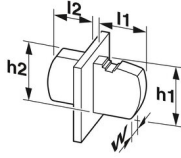
## Dimensions

# HDFK 16-VP - Panel feed-through terminal block



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Dimensional drawing	
Pitch	12.1 mm
Width [w]	12.1 mm
Height [h]	40 mm
Length [l]	58 mm

## External dimensions

Width [w]	12.1 mm
Height [h1]	40 mm
Length [l1]	32.3 mm

## Internal dimensions

Height [h2]	26 mm
Length [l2]	24.3 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 <sup>2</sup> / solid / > 20 N
	0.5 mm <sup>2</sup> / flexible / > 20 N
	25 mm <sup>2</sup> / stranded / > 135 N
	16 mm <sup>2</sup> / flexible / > 100 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

Specification	IEC 60947-7-1:2009-04
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

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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 Hz ... 60.1 Hz)
Sweep speed	5g (60.1 Hz ... 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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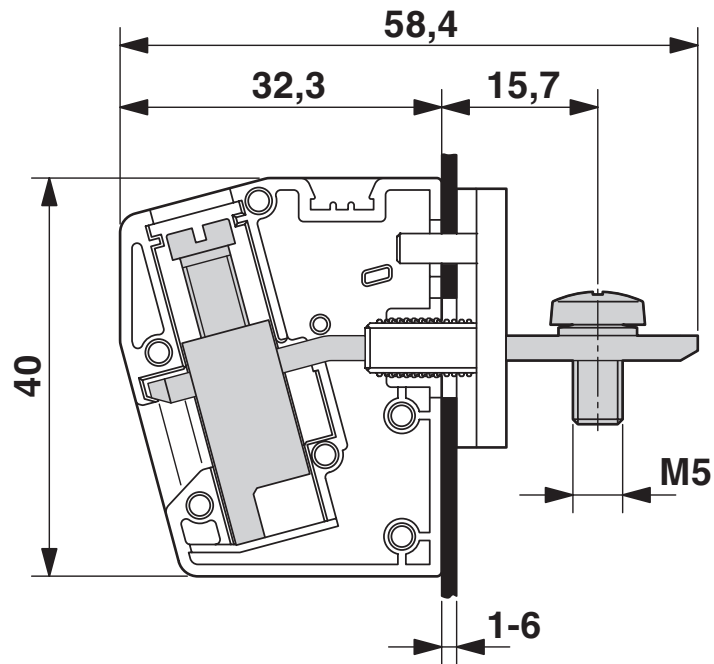
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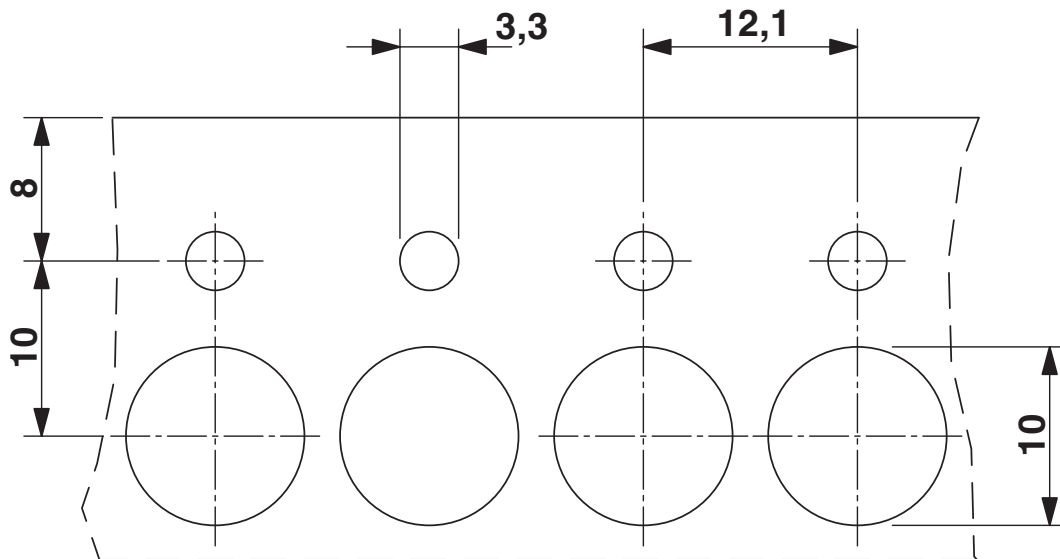
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## Drawings

Dimensional drawing



Dimensional drawing

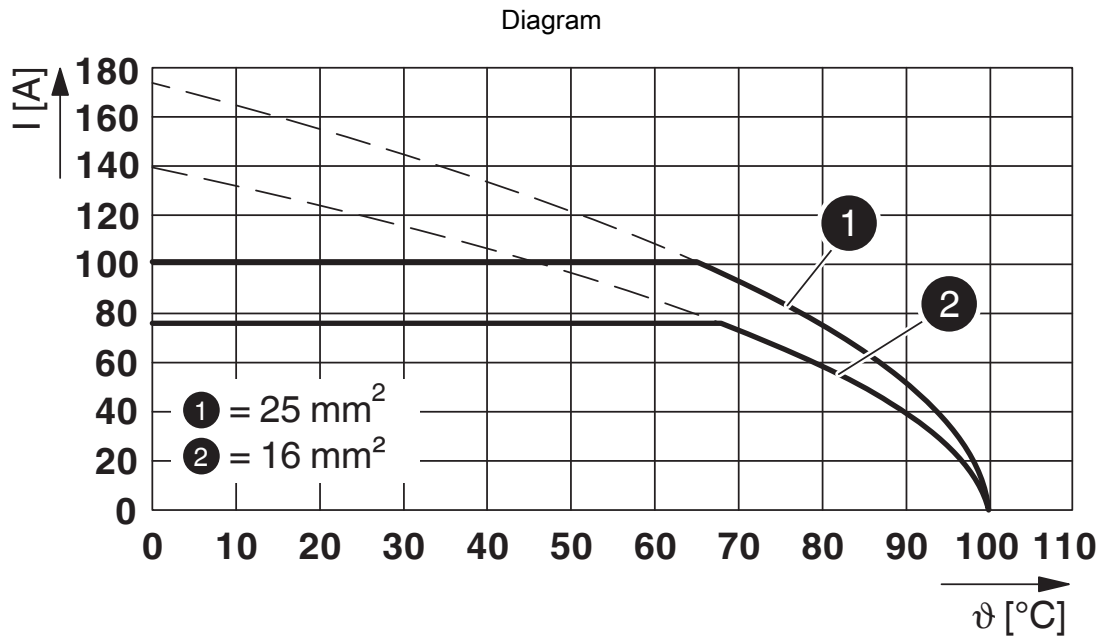


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Type: HDFK 16-VP

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## Approvals

 <b>IECEE CB Scheme</b> Approval ID: NL-29947				
	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
	500 V	76 A	-	- 16

 <b>EAC</b> Approval ID: B.01687				
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 <b>cULus Recognized</b> Approval ID: E60425-19870911				
	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
	600 V	85 A	20 - 4	-
	600 V	85 A	20 - 4	-

 <b>KEMA-KEUR</b> Approval ID: 2169260.01				
	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
	500 V	76 A	-	- 16



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## Classifications

### ECLASS

ECLASS-11.0	27141134
ECLASS-13.0	27141134
ECLASS-12.0	27141134

### ETIM

ETIM 8.0	EC001283
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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

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

1205066

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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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