

# HDFK 50-VP - Panel feed-through terminal block



0709123

<https://www.phoenixcontact.com/in/products/0709123>

Please be informed that the data shown in this PDF document is generated from our Online Catalog. Please find the complete data in the user documentation. Our General Terms of Use for Downloads are valid.



Panel feed-through terminal block, connection method: Screw connection with tension sleeve, Cable lug connection, number of positions: 1, load current: 150 A, cross section: 16 mm<sup>2</sup> - 50 mm<sup>2</sup>, connection direction of the conductor to plug-in direction: 0 °, width: 18.8 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	0709123
Packing unit	10 pc
Minimum order quantity	10 pc
Sales Key	AA1
Product Key	AA1FAB
Catalog Page	Page 619 (C-1-2013)
GTIN	4017918004941
Weight per Piece (including packing)	91.7 g
Weight per Piece (excluding packing)	86.14 g
Customs tariff number	85369010
Country of origin	GR

# HDFK 50-VP - Panel feed-through terminal block



0709123

<https://www.phoenixcontact.com/in/products/0709123>

## Technical Data

### Product properties

Product type	Panel feed-through terminal block
Product family	HDFK 50-VP
Number of positions	1
Pitch	18.8 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 $I_N$	150 A
Nominal voltage $U_N$	690 V
Degree of pollution	3
Rated voltage (III/3)	690 V
Rated surge voltage (III/3)	8 kV

### Connection data

#### Connection technology

Connector system	HDFK 50
Nominal cross section	50 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	16 mm <sup>2</sup> ... 50 mm <sup>2</sup>
Conductor cross section flexible	16 mm <sup>2</sup> ... 50 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve	10 mm <sup>2</sup> ... 50 mm <sup>2</sup>
Conductor cross section, flexible, with ferrule, with plastic sleeve	10 mm <sup>2</sup> ... 50 mm <sup>2</sup>
2 conductors with same cross section, solid	6 mm <sup>2</sup> ... 16 mm <sup>2</sup>
2 conductors with same cross section, flexible	10 mm <sup>2</sup> ... 16 mm <sup>2</sup>
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	6 mm <sup>2</sup> ... 16 mm <sup>2</sup>
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	6 mm <sup>2</sup> ... 10 mm <sup>2</sup>
Internal cylindrical gage	B10
Stripping length	24 mm
Tightening torque	6 Nm ... 8 Nm

# HDFK 50-VP - Panel feed-through terminal block



0709123

<https://www.phoenixcontact.com/in/products/0709123>

## Conductor connection interior

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

## Mounting

Plate thickness	1 mm ... 6 mm
-----------------	---------------

## 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 ()	()
----------	----

## Notes

### Safety note

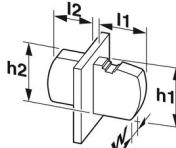
Safety note	<ul style="list-style-type: none"><li>• Only electrically qualified personnel may install and operate the product. To recognize and prevent danger, the qualified personnel must be familiar with the basics of electrical engineering.</li><li>• Observe the technical data provided here and refer to the documents listed under “Downloads”. The download area contains important information, such as installation notes, technical drawings, and 3D data.</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>
-------------	--

# HDFK 50-VP - Panel feed-through terminal block

0709123

<https://www.phoenixcontact.com/in/products/0709123>

## Dimensions

Dimensional drawing	
Pitch	18.8 mm
Width [w]	18.8 mm
External dimensions	
Height [h1]	54 mm
Length [l1]	43 mm
Internal dimensions	
Height [h2]	37 mm
Length [l2]	35 mm

## Mechanical tests

### Mechanical strength

Result	Test passed
--------	-------------

## Electrical tests

### Air clearances and creepage distances | 1. Insulation coordination

Application	Metal wall 4.5 mm ... 6.0 mm Internal part molded
Specification	IEC 60947-7-1:2002-07
Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	690 V
Rated surge voltage (III/3)	8 kV
minimum clearance value - non-homogenous field (III/3)	8 mm
minimum creepage distance (III/3)	8 mm

### Air clearances and creepage distances | 2. Insulation coordination

Application	Metal panel 2.0 mm ... 4.5 mm Internal part molded
Specification	IEC 60947-7-1:2002-07
Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	800 V
Rated surge voltage (III/3)	8 kV
minimum clearance value - non-homogenous field (III/3)	8 mm
minimum creepage distance (III/3)	10 mm

# HDFK 50-VP - Panel feed-through terminal block



0709123

<https://www.phoenixcontact.com/in/products/0709123>

## Air clearances and creepage distances | 3. Insulation coordination

Application	Metal panel 1.0 mm ... 2.0 mm
	Internal part molded
Specification	IEC 60947-7-1:2002-07
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

## Air clearances and creepage distances | 4. Insulation coordination

Application	Plastic panel 1.0 ... 6.0 mm
	Internal part molded
Specification	IEC 60947-7-1:2002-07
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

## Air clearances and creepage distances | 5. Insulation coordination

Application	Metal wall 1.0 mm ... 6.0 mm
	Internal part not molded
Specification	IEC 60947-7-1:2002-07
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
minimum clearance value - non-homogenous field (III/3)	3 mm
minimum creepage distance (III/3)	3.2 mm

## Air clearances and creepage distances | 6. Insulation coordination

Application	Plastic panel 1.0 ... 6.0 mm
	Internal part not molded
Specification	IEC 60947-7-1:2002-07
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
minimum clearance value - non-homogenous field (III/3)	3 mm
minimum creepage distance (III/3)	3.2 mm

## Surge voltage test

# HDFK 50-VP - Panel feed-through terminal block



0709123

<https://www.phoenixcontact.com/in/products/0709123>

Result	Test passed
--------	-------------

## Temperature-rise test

Requirement temperature-rise test	Increase in temperature $\leq 45$ K
Result	Test passed
Result	Test passed

## Power-frequency withstand voltage

Result	Test passed
--------	-------------

## Environmental and real-life conditions

### Needle-flame test

Time of exposure	30 s
Result	Test passed

## Packaging specifications

Type of packaging	packed in cardboard
-------------------	---------------------

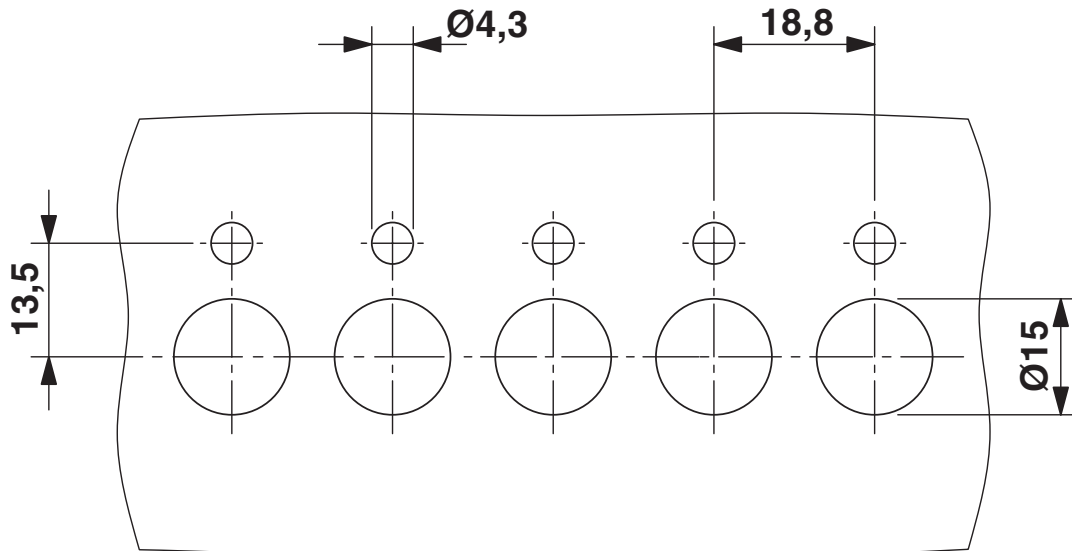
# HDFK 50-VP - Panel feed-through terminal block

0709123

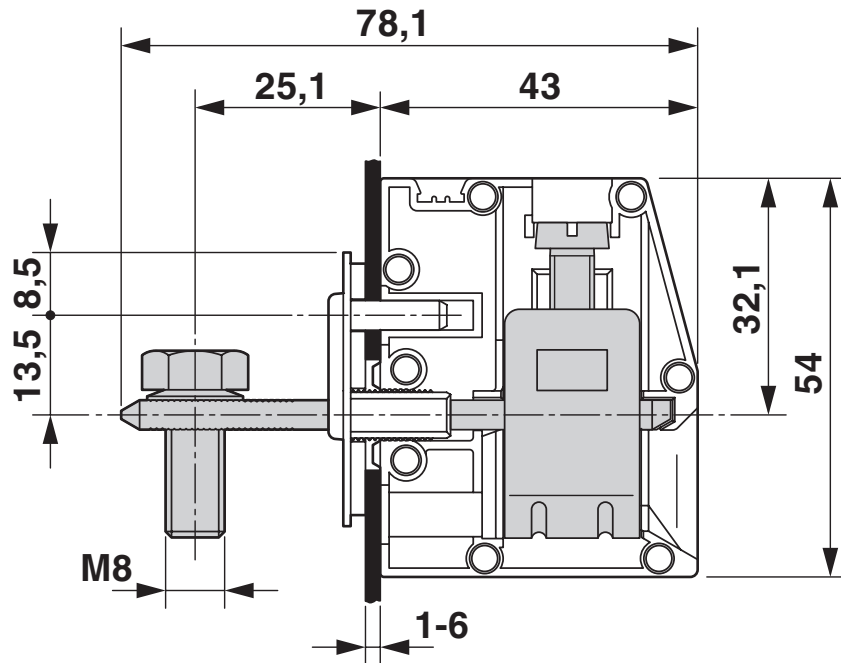
<https://www.phoenixcontact.com/in/products/0709123>

## Drawings

Dimensional drawing



Dimensional drawing




# HDFK 50-VP - Panel feed-through terminal block





0709123

<https://www.phoenixcontact.com/in/products/0709123>


## Approvals

 <b>CSA</b> Approval ID: 13631				
	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
	600 V	125 A	6 - 1/0	-
	600 V	125 A	6 - 1/0	-

 <b>UL Recognized</b> Approval ID: E60425-19890329				
	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
	600 V	170 A	6 - 2/0	-
	600 V	170 A	6 - 2/0	-

 <b>IECEE CB Scheme</b> Approval ID: NL-29947				
	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
	690 V	150 A	-	- 50

 <b>EAC</b> Approval ID: B.01687				
--	--	--	--	--

 <b>KEMA-KEUR</b> Approval ID: 2169260.01				
	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
	690 V	150 A	-	- 50



# HDFK 50-VP - Panel feed-through terminal block



0709123

<https://www.phoenixcontact.com/in/products/0709123>

## Classifications

### ECLASS

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

### ETIM

ETIM 8.0	EC001283
----------	----------

### UNSPSC

UNSPSC 21.0	39121400
-------------	----------

# HDFK 50-VP - Panel feed-through terminal block



0709123

<https://www.phoenixcontact.com/in/products/0709123>

## Environmental Product Compliance

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

# HDFK 50-VP - Panel feed-through terminal block



0709123

<https://www.phoenixcontact.com/in/products/0709123>

## Accessories

### SZS 1,2X8,0 VDE - Screwdriver

1205082

<https://www.phoenixcontact.com/in/products/1205082>



Screwdriver, slot-headed, VDE insulated, size: 1.2 x 8.0 x 175 mm, 2-component grip, with non-slip grip

---

### UKH 50 EP - Insertion profile

3009228

<https://www.phoenixcontact.com/in/products/3009228>



Insertion profile, color: silver

# HDFK 50-VP - Panel feed-through terminal block



0709123

<https://www.phoenixcontact.com/in/products/0709123>

## UC-TM 16 - Marker for terminal blocks

0819217

<https://www.phoenixcontact.com/in/products/0819217>



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 16 mm, lettering field size: 15.45 x 10.5 mm, Number of individual labels: 32

---

## UC-TM 16 CUS - Marker for terminal blocks

0824621

<https://www.phoenixcontact.com/in/products/0824621>



Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 16 mm, lettering field size: 15.45 x 10.5 mm, Number of individual labels: 32

# HDFK 50-VP - Panel feed-through terminal block



0709123

<https://www.phoenixcontact.com/in/products/0709123>

## ZB 16:UNPRINTED - Zack marker strip

0827461

<https://www.phoenixcontact.com/in/products/0827461>



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 16 mm, lettering field size: 16 x 10.5 mm, Number of individual labels: 50

---

## ZBF 16 CUS - Zack Marker strip, flat

0827465

<https://www.phoenixcontact.com/in/products/0827465>



Zack Marker strip, flat, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into flat marker groove, for terminal block width: 16 mm, lettering field size: 5.15 x 16 mm, Number of individual labels: 5

# HDFK 50-VP - Panel feed-through terminal block



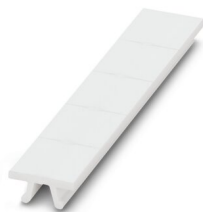
0709123

<https://www.phoenixcontact.com/in/products/0709123>

## ZB 12:UNPRINTED - Zack marker strip

0812120

<https://www.phoenixcontact.com/in/products/0812120>



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 12.2 mm, lettering field size: 12 x 10.5 mm, Number of individual labels: 5

---

Phoenix Contact 2023 © - all rights reserved

<https://www.phoenixcontact.com>

PHOENIX CONTACT (I) Pvt. Ltd.

A-58/2, Okhla Industrial Area, Phase - II, New Delhi-110 020

+91.1275.71420

[info@phoenixcontact.co.in](mailto:info@phoenixcontact.co.in)