VDFK 4 RD - Panel feed-through terminal block

1846602

https://www.phoenixcontact.com/us/products/1846602

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The figure shows a 6-position version

Panel feed-through terminal block, connection method: Screw connection with tension sleeve, Solder connection, number of positions: 1, load current: 32 A, cross section: 0.2 mm^2 - 6 mm^2, connection direction of the conductor to plug-in direction: 0 °, width: 10 mm, color: red

Your advantages

- Well-known connection principle allows worldwide use
- Low temperature rise, thanks to maximum contact force

Commercial data

Item number	1846602
Packing unit	50 pc
Minimum order quantity	50 pc
Note	Made to order (non-returnable)
Sales key	AA48
Product key	AA1ACB
GTIN	4055626003054
Weight per piece (including packing)	4.05 g
Weight per piece (excluding packing)	4.03 g
Customs tariff number	85369010
Country of origin	PL

Technical data

Product properties

Product type	Panel feed-through terminal block
Product family	VDFK 4
Number of positions	1
Pitch	10 mm
Number of connections	2
Number of potentials	1

Fitting of components

Partial assembly	No

Electrical properties

Properties

Nominal current I_N	32 A
Nominal voltage U_N	500 V
Rated voltage (III/3)	500 V
Rated surge voltage (III/3)	6 kV

Connection data

Connection technology

Connector system	VDFK 4
Nominal cross section	4 mm²

Conductor connection exterior

Connection method	Screw connection with tension sleeve
Connection direction of the conductor to plug-in direction	0 °
Conductor cross-section rigid	0.2 mm² ... 6 mm²
Conductor cross-section flexible	0.2 mm² ... 4 mm²
Conductor cross-section, flexible, with ferrule, without plastic sleeve	0.25 mm² ... 4 mm²
Conductor cross-section, flexible, with ferrule, with plastic sleeve	0.25 mm² ... 4 mm²
2 conductors with same cross section, rigid	0.2 mm² ... 1.5 mm²
2 conductors with same cross section, flexible	0.2 mm² ... 1.5 mm²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm² ... 1.5 mm²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm² ... 2.5 mm²
Internal cylindrical gage	A4
Stripping length	8 mm
Tightening torque	0.6 Nm ... 0.8 Nm

Conductor connection interior

Connection method	Solder connection

Connection direction of the conductor to plug-in direction	0 °

Mounting

Panel thickness	1 mm...4 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

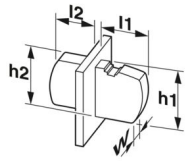
Color (Housing)	red (3001)
Insulating material	PA
Insulating material group	I
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0
Glow wire flammability index GWFI according to EN 60695-2-12	850
Glow wire ignition temperature GWIT according to EN 60695-2-13	775
Temperature for the ball pressure test according to EN 60695-10-2	125 °C

Notes

Safety note

Safety note	• WARNING: Only electrically qualified personnel may install and operate the product. They must observe the following safety notes. The qualified personnel must be familiar with the basics of electrical engineering. They must be able to recognize and prevent danger. The relevant symbol on the packaging indicates that only personnel familiar with electrical engineering are allowed to install and operate the product.
	• The installation notes/Design In documents online on the download page at phoenixcontact.com/products must be observed for this product.
	• 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.
	• To maintain the nominal voltage, cast the terminals on the inside.
	• 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.

Dimensions

Dimensional drawing	
Pitch	10 mm
Width [w]	10 mm
Height [h]	20.5 mm
Length [l]	25.5 mm

External dimensions

Height [h1]	20.5 mm
Length [l1]	10.9 mm

Internal dimensions

Height [h2]	9.8 mm
Length [l2]	13.6 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	0.2 mm² / solid / > 10 N
	0.2 mm² / flexible / > 10 N
	6 mm² / solid / > 80 N
	4 mm² / flexible / > 60 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

Air clearances and creepage distances | 1. Insulation coordination

Application	Internal part molded
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

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)
Acceleration	5g (60.1 Hz ... 150 Hz)
Test duration per axis	2.5 h
Test directions	X-, Y- and Z-axis

Glow-wire test

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

Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C
Ambient temperature (operation)	-40 °C ... 105 °C (Depending on the current carrying capacity/derating curve)

Ambient conditions

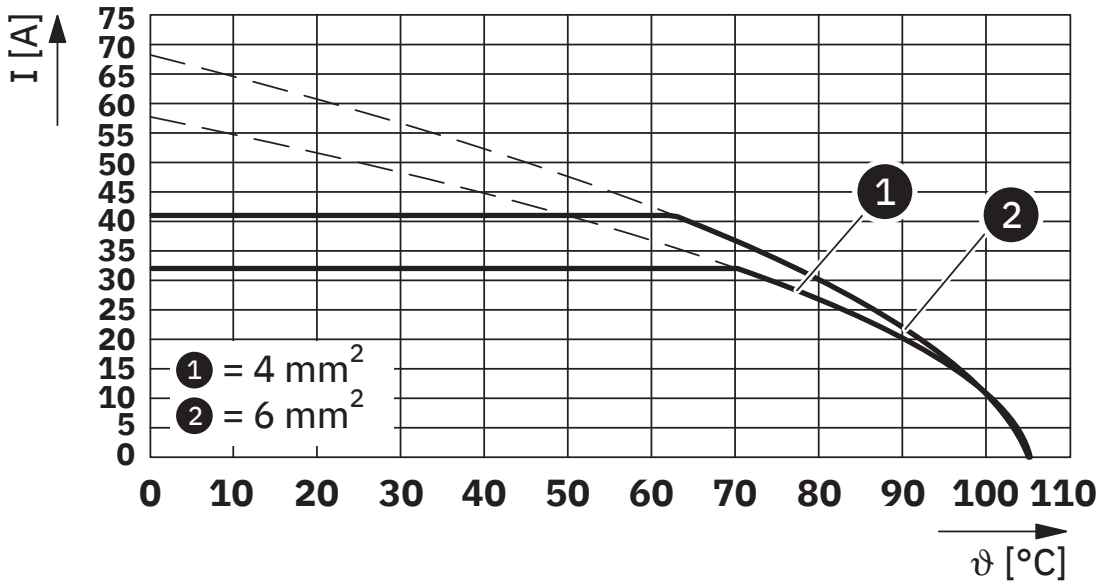
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Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C

Packaging specifications

Type of packaging	packed in cardboard

Drawings

Diagram



Type: VDFK 4

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1846602

CSA
Approval ID: 13631

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B				
	300 V	30 A	28 - 10	-
C				
	150 V	30 A	28 - 10	-
D				
	300 V	10 A	28 - 10	-

cULus Recognized
Approval ID: E60425-19770427

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B				
	300 V	30 A	30 - 10	-
C				
	150 V	30 A	30 - 10	-
D				
	300 V	10 A	30 - 10	-

ATEX
Approval ID: ExTR17.0071

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	275 V	32 A	-	0.2 - 4

IECEx
Approval ID: IECExDEK17.0.60U

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	275 V	32 A	-	0.2 - 4

CCC
Approval ID: 2020322313003276

Classifications

ECLASS

ECLASS-13.0	27141134
ECLASS-15.0	27141134

ETIM

ETIM 10.0	EC001283

UNSPSC

UNSPSC 21.0	39121400

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions

China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%

EF3.1 Climate Change

CO2e kg	0.031 kg CO2e

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