

TW 50/ 4-CL - Panel feed-through terminal block



1708748

<https://www.phoenixcontact.com/in/products/1708748>

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Panel feed-through terminal block, connection method: T-LOX knee lever connection, Cable lug connection, number of positions: 4, load current: 150 A, cross section: 10 mm² - 50 mm², connection direction of the conductor to plug-in direction: 0 °, width: 98 mm

Your advantages

- Lever actuation enables time-saving and smooth connection of large conductors
- Defined contact force ensures that contact remains stable over the long term
- 90° open clamping space allows the conductor to be conveniently swiveled
- Quick, tool-free mounting on the housing wall using a fixing wedge

Commercial Data

Item number	1708748
Packing unit	5 pc
Minimum order quantity	5 pc
Note	Made to Order (non-returnable)
Sales Key	AA1
Product Key	AA1FFA
GTIN	4055626020341
Weight per Piece (including packing)	524.2 g
Weight per Piece (excluding packing)	524.2 g
Customs tariff number	85369010
Country of origin	PL

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Technical Data

Product properties

Product type	Panel feed-through terminal block
Product family	TW 50/.. -CL
Number of positions	4
Pitch	20 mm
Number of connections	8
Number of rows	1
Number of potentials	4

Electrical properties

Nominal current I_N	150 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

Connection data

Connection technology

Connector system	TW 50
Nominal cross section	50 mm ²

Conductor connection exterior

Connection method	T-LOX knee lever connection
Connection direction of the conductor to plug-in direction	0 °
Conductor cross section rigid	10 mm ² ... 50 mm ²
Conductor cross section flexible	16 mm ² ... 50 mm ²
Conductor cross section flexible, with ferrule without plastic sleeve	10 mm ² ... 50 mm ²
Conductor cross section, flexible, with ferrule, with plastic sleeve	10 mm ² ... 50 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	6 mm ² ... 16 mm ²
Stripping length	20 mm (10 mm ² ... 25 mm ² = 18 mm, 35 mm ² ... 50 mm ² = 20 mm)

Conductor connection interior

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

Mounting

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Plate thickness	1 mm ... 5 mm
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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

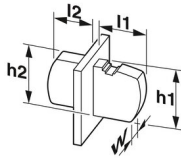
Color (Housing)	gray (7042)
Insulating material	PA
Insulating material group	I
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0
Glow wire flammability index GWFI according to EN 60695-2-12	850
Glow wire ignition temperature GWIT according to EN 60695-2-13	775
Temperature for the ball pressure test according to EN 60695-10-2	125 °C

Notes

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.• 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.• 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.
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Dimensions

Dimensional drawing	
Pitch	20 mm
Width [w]	98 mm

External dimensions

Height [h1]	73.5 mm
Length [l1]	46 mm

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Internal dimensions

Height [h2]	58.16 mm
Length [l2]	56.1 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	10 mm ² / solid / > 90 N
	10 mm ² / flexible / > 90 N
	50 mm ² / solid / > 236 N
	50 mm ² / flexible / > 236 N
	6 mm ² / flexible with ferrule / > 80 N
	16 mm ² / flexible with ferrule / > 100 N

Electrical tests

Temperature-rise test

Specification	IEC 60947-7-1:2009-04 (following)
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 60947-1:2007-06 + A1:2010-12
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
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

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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 60695-2-11:2000-10
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

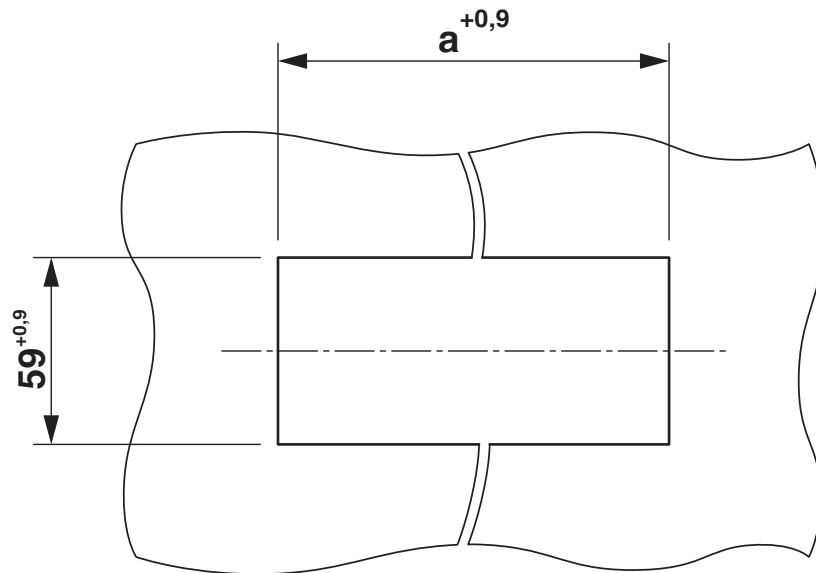
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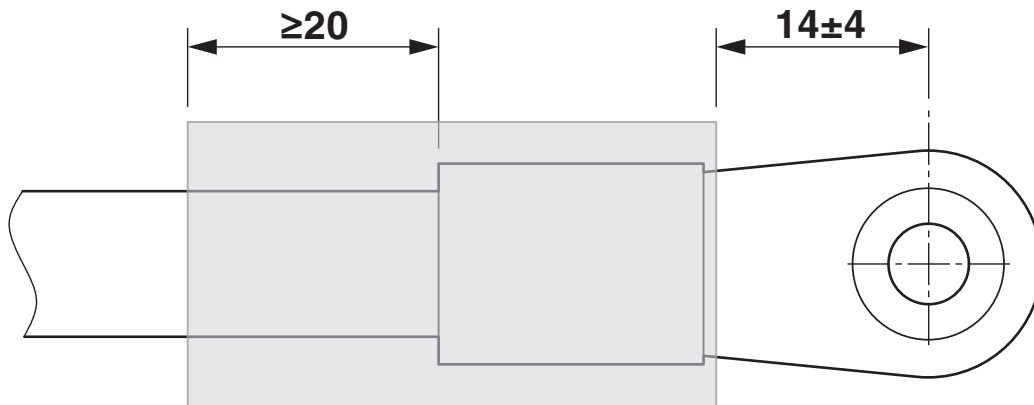
Drawings

Drilling plan/solder pad geometry

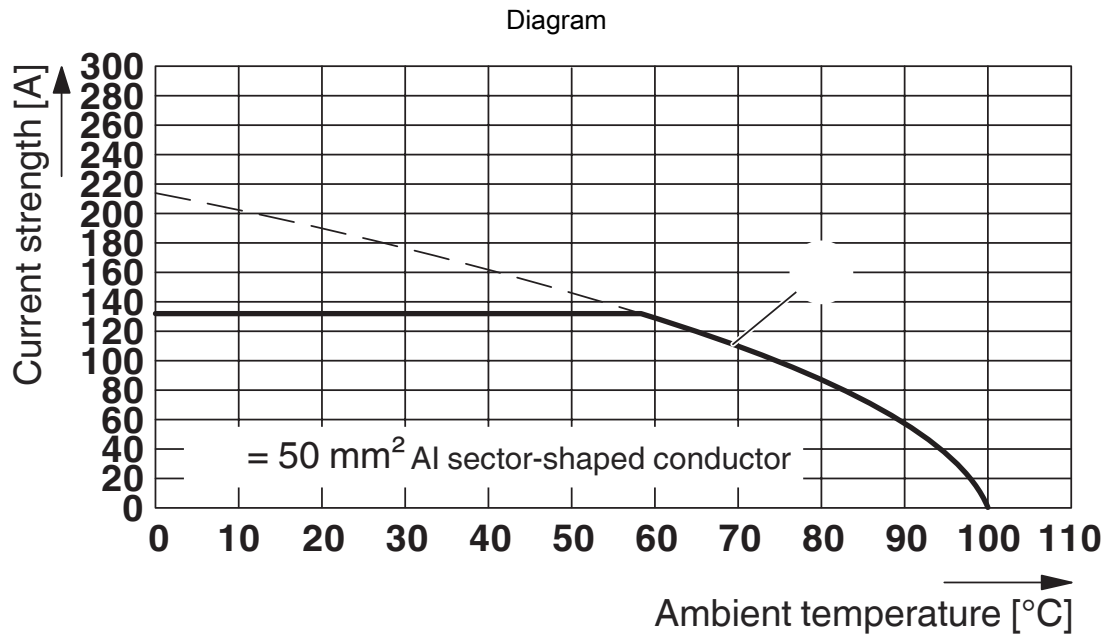


Dimension a = 89 mm

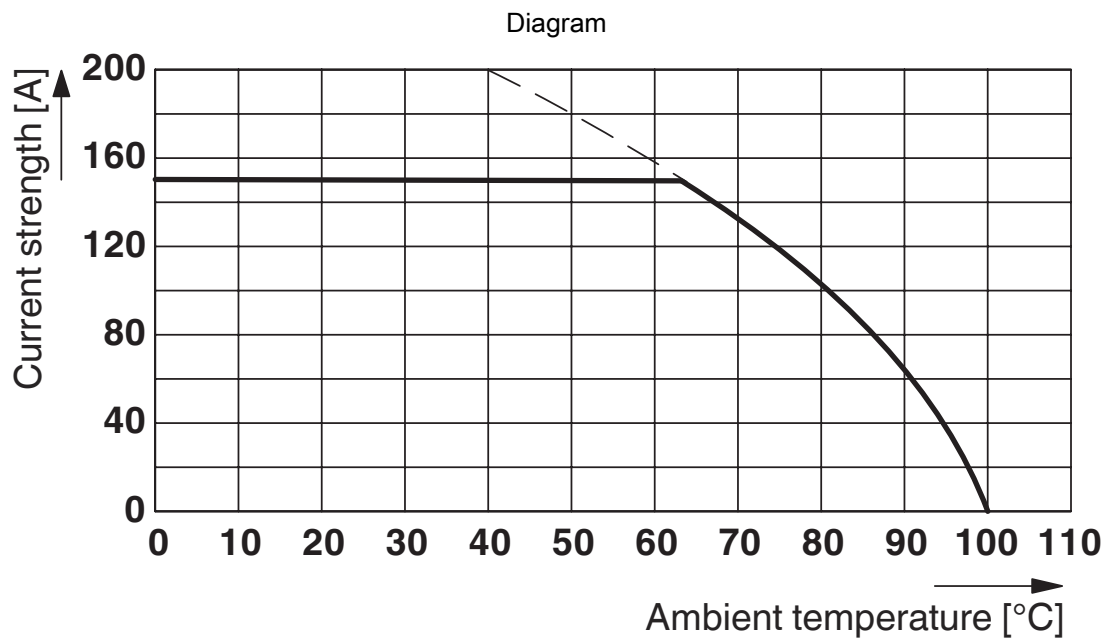
Dimensional drawing



Electric strength > 19.7 kV/mm (IEC243), min. Wall thickness, fully shrunk ≥ 0.5 mm



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/in/products/1708748>



EAC

Approval ID: B.01687



cULus Recognized

Approval ID: E60425-20160914

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
Use group C				
	600 V	150 A	8 - 1/0	-



VDE Zeichengenehmigung

Approval ID: 40045667

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	1000 V	150 A	-	10 - 50

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Classifications

ECLASS

ECLASS-11.0	27141134
ECLASS-12.0	27141134
ECLASS-13.0	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

SZK PZ2 VDE - Screwdriver

1206463

<https://www.phoenixcontact.com/in/products/1206463>



Screwdriver, PZ crosshead, VDE insulated, size: PZ 2 x 100 mm, 2-component grip, with non-slip grip

CRIMPFOX 25R - Crimping pliers

1212039

<https://www.phoenixcontact.com/in/products/1212039>



Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 10 mm² ... 25 mm², lateral entry, WM crimp

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CRIMPFOX 50R - Crimping pliers

1212041

<https://www.phoenixcontact.com/in/products/1212041>



Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 35 mm² ... 50 mm², lateral entry, WM crimp

ZBF 15:UNBEDRUCKT - Zack Marker strip, flat

0811202

<https://www.phoenixcontact.com/in/products/0811202>



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 15 mm, lettering field size: 15 x 5.2 mm, Number of individual labels: 5

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ZBF 15 CUS - Zack Marker strip, flat

0825019

<https://www.phoenixcontact.com/in/products/0825019>

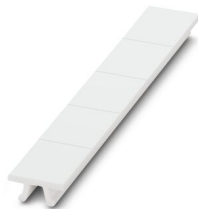


Zack Marker strip, flat, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into flat marker groove, for terminal block width: 15 mm, lettering field size: 5.15 x 15.1 mm, Number of individual labels: 5

ZB 15:UNBEDRUCKT - Zack marker strip

0811972

<https://www.phoenixcontact.com/in/products/0811972>



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 15.2 mm, lettering field size: 10.5 x 15.1 mm, Number of individual labels: 5

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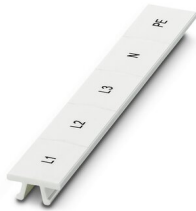
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ZB 15,LGS:L1-N,PE - Zack marker strip

0811998

<https://www.phoenixcontact.com/in/products/0811998>

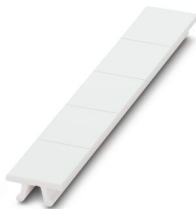


Zack marker strip, Strip, white, labeled, printed horizontally: L1, L2, L3, N, PE, mounting type: snapped, for terminal block width: 15.2 mm, lettering field size: 10.5 x 15.1 mm, Number of individual labels: 5

ZB 15 CUS - Zack marker strip

0824945

<https://www.phoenixcontact.com/in/products/0824945>



Zack marker strip, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 15.2 mm, lettering field size: 10.5 x 15.1 mm, Number of individual labels: 5

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PHOENIX CONTACT (I) Pvt. Ltd.

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

+91.1275.71420

info@phoenixcontact.co.in