

## Panel feed-through terminal block - TW 50/ 4-CL - 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 mm<sup>2</sup> - 50 mm<sup>2</sup>, connection direction of the conductor to plug-in direction: 0 °, width: 98 mm, color: gray

The figure shows a 5-pos. version of the product

### 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



### Key Commercial Data

Packing unit	1 pc
Minimum order quantity	5 pc
GTIN	 4 055626 020341
GTIN	4055626020341
Weight per Piece (excluding packing)	520.000 g
Custom tariff number	85369010
Country of origin	Poland

### Technical data

#### Item properties

Brief article description	Panel feed-through terminal block
Range of articles	TW 50/..-CL
Pitch	20 mm

# Panel feed-through terminal block - TW 50/ 4-CL - 1708748

## Technical data

### Item properties

Number of positions	4
Number of connections	8
Number of potentials	4

### Electrical parameters

Nominal current	150 A
Nom. voltage	1000 V
Rated voltage (III/3)	1000 V
Rated voltage (III/2)	1000 V
Rated voltage (II/2)	1000 V
Rated surge voltage (III/3)	8 kV
Rated surge voltage (III/2)	8 kV
Rated surge voltage (II/2)	6 kV

### Connection capacity, external

Connection method	T-LOX knee lever connection
Connection direction of the conductor to plug-in direction	0 °
Conductor cross section solid	10 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 the same cross section, flexible, with TWIN ferrule with plastic sleeve	6 mm <sup>2</sup> ... 16 mm <sup>2</sup>
Stripping length	20 mm (10 mm <sup>2</sup> to 25 mm <sup>2</sup> = 18 mm, 35 mm <sup>2</sup> to 50 mm <sup>2</sup> = 20 mm)

### Connection capacity, internal

Connection method	Cable lug connection
Connection direction of the conductor to plug-in direction	0 °
Cable lug connection according to standard	DIN 46234:1980-03 10 mm <sup>2</sup> 50 mm <sup>2</sup> 6.5 mm 18 mm M6 6 Nm 8 Nm

### 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

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## Technical data

### Material data - housing

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

### Dimensions for the product

Caption	Schematische Abbildung - weitere Details siehe Produktfamilienzeichnung im Download Center
Width [ w ]	98 mm
Pitch	20 mm

### Dimensions for mounting cutout

Caption	Dimension a = 89 mm
Plate thickness	1 mm ... 5 mm

### Packaging information

Pieces per package	5
Denomination packing units	Pcs.

### Ambient conditions

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

### Termination and connection method

Test for conductor damage and slackening	IEC 60947-7-1:2009-04
	Test passed

### Pull-out test

Pull-out test	DIN EN 60947-7-1 (VDE 0611-1):2010-03
Conductor cross section / conductor type / tensile force	10 mm <sup>2</sup> / solid / > 90 N
	10 mm <sup>2</sup> / flexible / > 90 N
	50 mm <sup>2</sup> / solid / > 236 N
	50 mm <sup>2</sup> / flexible / > 236 N
	6 mm <sup>2</sup> / flexible with ferrule / > 80 N
	16 mm <sup>2</sup> / flexible with ferrule / > 100 N

### Mechanical tests according to standard

Test specification	IEC 60947-7-1 (following)
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### Electrical tests

Rated current	150 A
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## Technical data

### Electrical tests

Conductor cross section	50 mm <sup>2</sup>
Rated voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV

### Air clearances and creepage distances

Clearances and creepage distances	IEC 60947-1:2007-06 + A1:2010-12
Specification	IEC 60947-1:2007-06 + A1:2010-12
Minimum clearance - inhomogeneous field (III/3)	8 mm
Minimum clearance - inhomogeneous field (III/2)	8 mm
Minimum clearance - inhomogeneous field (II/2)	5.5 mm
Minimum creepage distance value (III/3)	12.5 mm
Minimum creepage distance value (III/2)	8 mm
Minimum creepage distance value (II/2)	5.5 mm

### Temperature-rise test

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

### Current carrying capacity / derating curves

Caption	Type: TW 50/...-CL
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### Standards and Regulations

Flammability rating according to UL 94	V0
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> </ul>

### 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)
Acceleration	5g (60.1 - 150 Hz)
Test duration per axis	2.5 h

### Glow-wire test

Specification	IEC 60695-2-11:2000-10
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## Technical data

### Glow-wire test

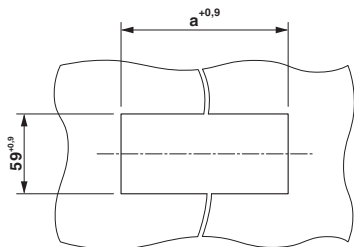
Temperature	960 °C
Time of exposure	30 s

### Environmental Product Compliance

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

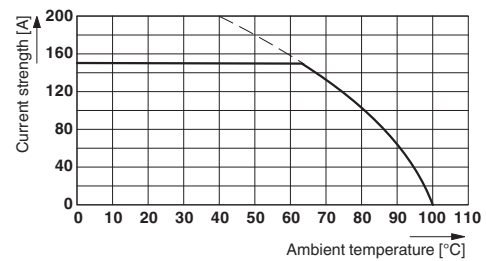
## Drawings

Drilling diagram



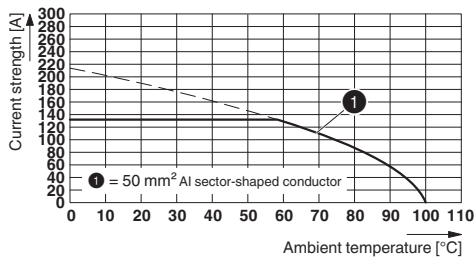
Dimension a = 89 mm

Diagram



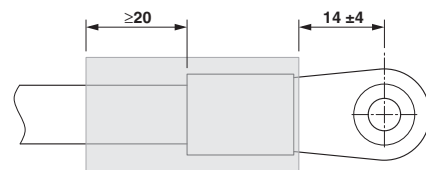
Type: TW 50/...-CL

Diagram



Type: TW 50/...-CL

Dimensional drawing



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

## Classifications

eCl@ss

eCl@ss 10.0.1	27141134
eCl@ss 11.0	27141134
eCl@ss 5.0	27141100
eCl@ss 5.1	27141100
eCl@ss 6.0	27141100

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## Classifications

### eCl@ss

eCl@ss 7.0	27141134
eCl@ss 9.0	27141134

### ETIM

ETIM 6.0	EC001283
ETIM 7.0	EC001283

### UNSPSC

UNSPSC 13.2	39121410
UNSPSC 18.0	39121410
UNSPSC 19.0	39121410
UNSPSC 20.0	39121410
UNSPSC 21.0	39121410

## Approvals


### Approvals


Approvals

VDE Zeichengenehmigung / EAC / cULus Recognized

Ex Approvals


### Approval details

VDE Zeichengenehmigung		<a href="http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx">http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx</a>	40045667
Nominal voltage UN	1000 V		
Nominal current IN	150 A		
mm <sup>2</sup> /AWG/kcmil	10-50		

EAC		B.01687
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## Approvals

cULus Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	E60425-20160914
		C	
Nominal voltage UN	600 V		
Nominal current IN	150 A		
mm <sup>2</sup> /AWG/kcmil	8		

## Accessories

### Accessories

#### Crimping tool

Crimping pliers - CRIMPFOX 25R - 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 mm<sup>2</sup> ... 25 mm<sup>2</sup>, lateral entry, WM crimp

Crimping pliers - CRIMPFOX 50R - 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 mm<sup>2</sup> ... 50 mm<sup>2</sup>, lateral entry, WM crimp

#### Labeled terminal marker

Zack Marker strip, flat - ZBF 15 CUS - 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

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### Accessories

Zack marker strip - ZB 15,LGS:L1-N,PE - 0811998



Zack marker strip, Strip, white, labeled, printed horizontally: L1, L2, L3, N, PE, 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

Zack marker strip - ZB 15 CUS - 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

### Screwdriver tools

Philips screwdriver - SZK PZ2 VDE - 1206463



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

### Terminal marking

Zack Marker strip, flat - ZBF 15:UNBEDRUCKT - 0811202



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

Zack marker strip - ZB 15:UNBEDRUCKT - 0811972



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, 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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### Accessories

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