

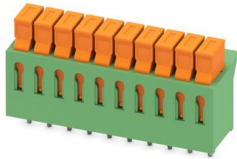
# IDC 0,3/10-3,81 - PCB terminal block



1706251

<https://www.phoenixcontact.com/us/products/1706251>

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PCB terminal block, nominal current: 5 A, rated voltage (III/2): 160 V, nominal cross section: 0.34 mm<sup>2</sup>, number of potentials: 10, number of rows: 1, number of positions per row: 10, product range: IDC 0,3, pitch: 3.81 mm, connection method: Displacement connection, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: green, Pin layout: Linear pinning, Solder pin [P]: 3.4 mm, number of solder pins per potential: 1, type of packaging: packed in cardboard

## Your advantages

- Connection without conductor pretreatment for huge time savings
- Intuitive operation due to color-coded actuating push button

## Commercial data

Item number	1706251
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	AA11
Product key	AAKJAA
Catalog page	Page 154 (C-1-2013)
GTIN	4017918116750
Weight per piece (including packing)	6.15 g
Weight per piece (excluding packing)	5.79 g
Customs tariff number	85369010
Country of origin	PL

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## Technical data

### Product properties

Product type	Printed circuit board terminal
Product family	IDC 0,3
Product line	COMBICON Terminals XS
Type	PC termination block
Number of positions	10
Pitch	3.81 mm
Number of connections	10
Number of rows	1
Number of potentials	10
Pin layout	Linear pinning
Solder pins per potential	1

### Electrical properties

Nominal current $I_N$	5 A
Nominal voltage $U_N$	160 V
Degree of pollution	3
Rated voltage (III/3)	160 V
Rated surge voltage (III/3)	2.5 kV
Rated voltage (III/2)	160 V
Rated surge voltage (III/2)	2.5 kV
Rated voltage (II/2)	320 V
Rated surge voltage (II/2)	2.5 kV

### Connection data

#### Connection technology

Type	PC termination block
Nominal cross section	0.34 mm <sup>2</sup>

#### Conductor connection

Connection method	Displacement connection
Conductor cross section rigid	0.13 mm <sup>2</sup> ... 0.34 mm <sup>2</sup>
Conductor cross section flexible	0.22 mm <sup>2</sup> ... 0.34 mm <sup>2</sup>
Conductor cross section AWG	26 ... 22

### Mounting

Mounting type	Wave soldering
Pin layout	Linear pinning

### Material specifications

#### Material data - contact

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Note	WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/JEDEC JESD 201
Contact material	Cu alloy
Surface characteristics	Tin-plated
Metal surface terminal point (top layer)	Tin (5 - 7 $\mu\text{m}$ Sn)
Metal surface terminal point (middle layer)	Nickel (2 - 3 $\mu\text{m}$ Ni)
Metal surface soldering area (top layer)	Tin (5 - 7 $\mu\text{m}$ Sn)
Metal surface soldering area (middle layer)	Nickel (2 - 3 $\mu\text{m}$ Ni)

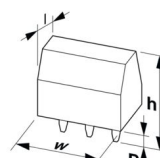
## Material data - housing

Color (Housing)	green (6021)
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

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

## Dimensions

Dimensional drawing	
Pitch	3.81 mm
Width [w]	39.29 mm
Height [h]	22.2 mm
Length [l]	12.4 mm
Installed height	18.8 mm
Solder pin length [P]	3.4 mm
Pin dimensions	1 x 0.4 mm

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## PCB design

Hole diameter	1.3 mm
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## Electrical tests

### Air clearances and creepage distances |

Specification	IEC 60664-1:2007-04
Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	160 V
Rated surge voltage (III/3)	2.5 kV
minimum clearance value - non-homogenous field (III/3)	1.5 mm
minimum creepage distance (III/3)	2 mm
Rated insulation voltage (III/2)	160 V
Rated surge voltage (III/2)	2.5 kV
minimum clearance value - non-homogenous field (III/2)	1.5 mm
minimum creepage distance (III/2)	1.5 mm
Rated insulation voltage (II/2)	320 V
Rated surge voltage (II/2)	2.5 kV
minimum clearance value - non-homogenous field (II/2)	1.5 mm
minimum creepage distance (II/2)	1.6 mm

## Environmental and real-life conditions

### Ambient conditions

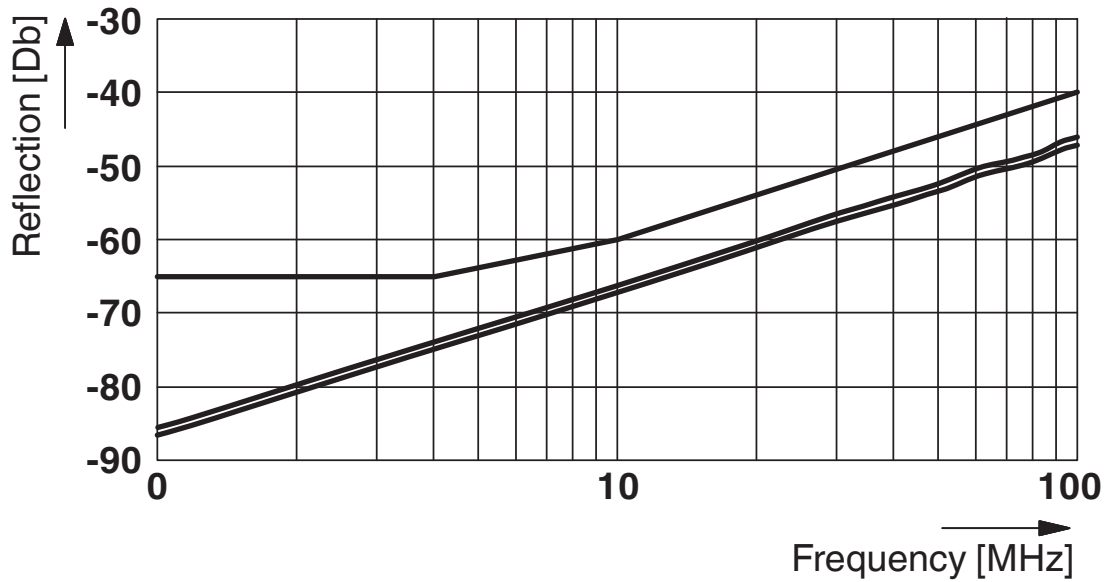
Ambient temperature (operation)	-40 °C ... 100 °C (dependent on the derating curve)
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C

## Packaging specifications

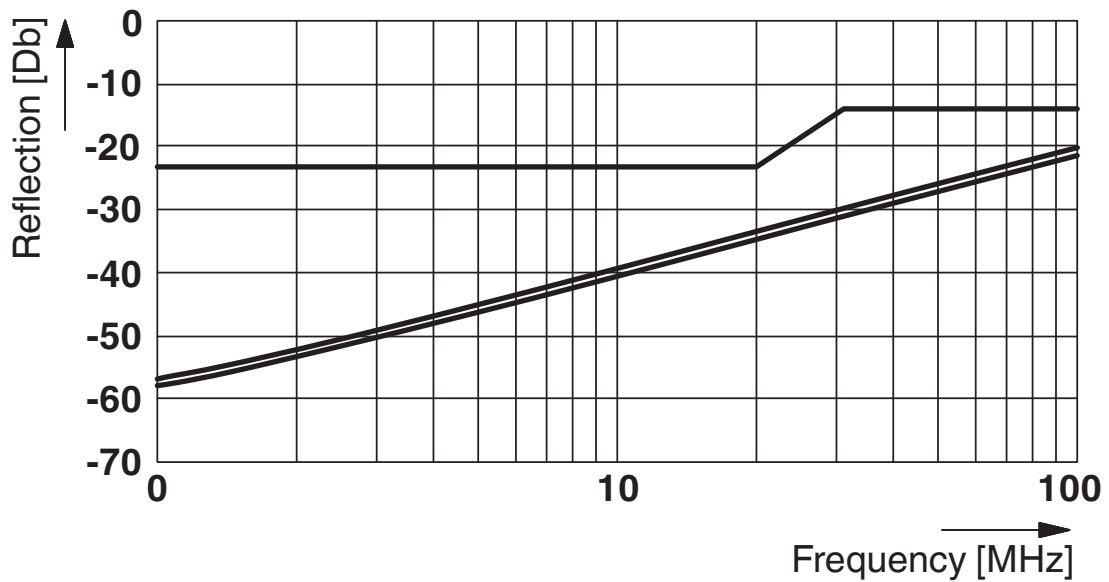
Type of packaging	packed in cardboard
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Drawings

Diagram



Diagram



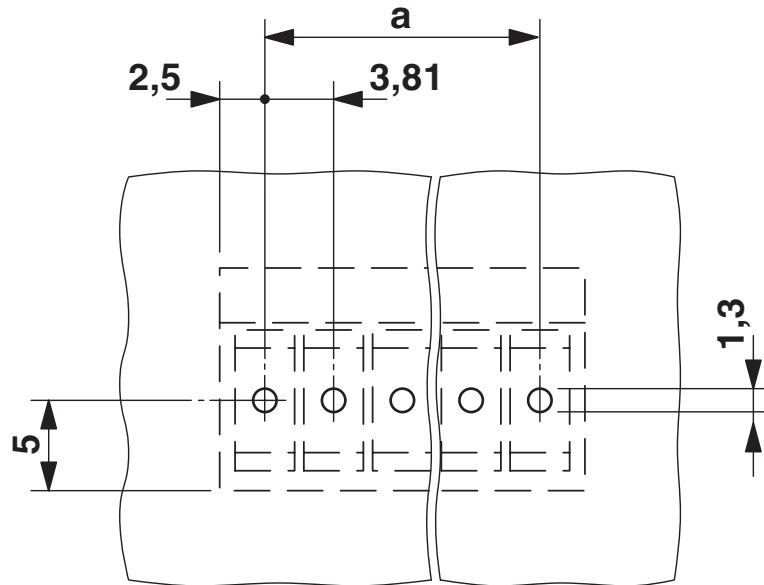
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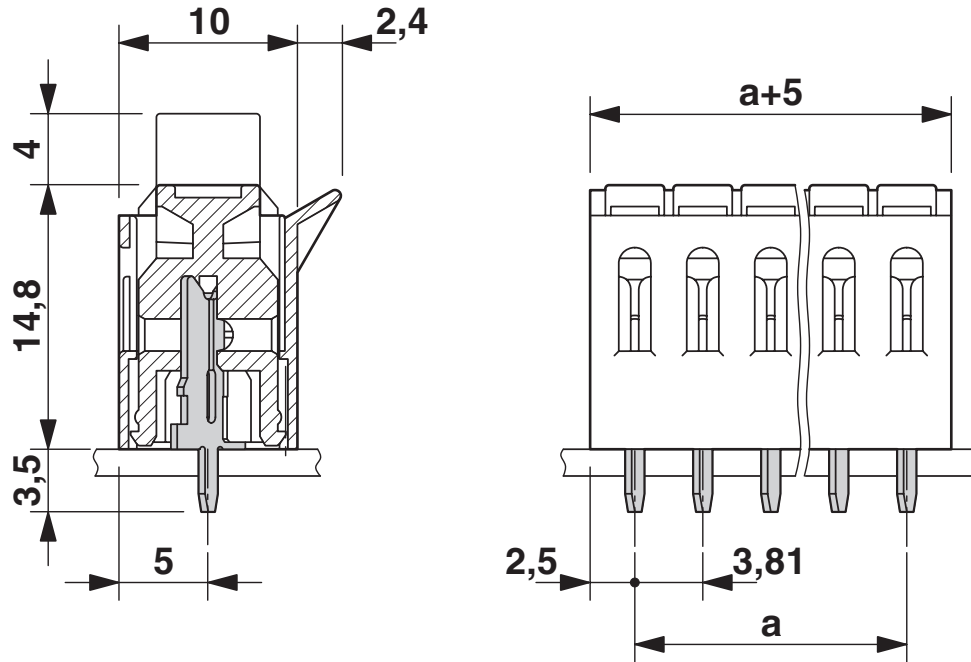
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Drilling plan/solder pad geometry



Dimensional drawing



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1706251>

 <b>CSA</b> Approval ID: 13631				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
Use group B				
	300 V	5 A	28 - 22	-
Use group D				
	300 V	5 A	28 - 22	-

 <b>cULus Recognized</b> Approval ID: E60425-19961206				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
Use group B				
	250 V	5 A	28 - 22	-
Use group D				
	300 V	5 A	28 - 22	-

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## Classifications

### ECLASS

ECLASS-11.0	27460101
ECLASS-12.0	27460101
ECLASS-13.0	27460101

### ETIM

ETIM 9.0	EC002643
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### UNSPSC

UNSPSC 21.0	39121400
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### 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%
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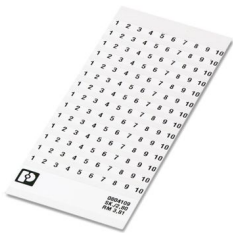
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## Accessories

SK 3,81/2,8:FORTL.ZAHLEN - Marker card

0804109

<https://www.phoenixcontact.com/us/products/0804109>



Marker card, Sheet, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 .  
.. 20, etc. up to 91 ... (99)100, mounting type: adhesive, for terminal block width:  
3.81 mm, lettering field size: 3.81 x 2.8 mm, Number of individual labels: 14

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