

1704402

https://www.phoenixcontact.com/gb/products/1704402

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.



Printed circuit board terminal, nominal current: 12 A, rated voltage (III/2): 400 V, nominal cross section: 1.5 mm², number of potentials: 2, number of rows: 2, number of positions per row: 1, product range: ZFKKDS(A) 1,5, pitch: 5.08 mm, connection method: Spring-cage connection, mounting: Wave soldering, conductor/PCB connection direction: 45 °, color: green, Pin layout: Linear pinning, Solder pin [P]: 3.5 mm, number of solder pins per potential: 1, type of packaging: packed in cardboard. Single module for the custom grouping of different numbers of positions. An end terminal block is also needed to terminate the block (see accessories). Blocked items with different numbers of positions are also available.

### Your advantages

- Defined contact force ensures that contact remains stable over the long term
- · Clamping space opened by means of fixed screwdriver enables convenient conductor connection
- · Conductor connection on several levels enables higher contact density
- The latching on the side enables various numbers of positions to be combined

#### Commercial data

	170.1100	
Item number	1704402	
Packing unit	100 pc	
Minimum order quantity	100 pc	
Sales key	AALMCA	
Product key	AALMCA	
Catalog page	Page 45 (CC-2005)	
GTIN	4017918116644	
Weight per piece (including packing)	2.778 g	
Weight per piece (excluding packing)	2.537 g	
Customs tariff number	85369010	
Country of origin	IN	



https://www.phoenixcontact.com/gb/products/1704402



## Technical data

### Product properties

Product type	Printed circuit board terminal
Product family	ZFKKDS(A) 1,5
Product line	COMBICON Terminals S
Туре	PC terminal block can be aligned
Number of positions	1
Pitch	5.08 mm
Number of connections	2
Number of rows	2
Number of potentials	2
Pin layout	Linear pinning
Solder pins per potential	1

### Electrical properties

#### Properties

Nominal current I <sub>N</sub>	12 A
Nominal voltage U <sub>N</sub>	400 V
Rated voltage (III/3)	250 V
Rated surge voltage (III/3)	4 kV
Rated voltage (III/2)	400 V
Rated surge voltage (III/2)	4 kV
Rated voltage (II/2)	630 V
Rated surge voltage (II/2)	4 kV

### Connection data

### Connection technology

Туре	PC terminal block can be aligned	
Nominal cross section	1.5 mm²	
Conductor connection		
Connection method	Spring-cage connection	

Conductor connection	
Connection method	Spring-cage connection
Conductor cross section rigid	0.2 mm <sup>2</sup> 2.5 mm <sup>2</sup>
Conductor cross section flexible	0.2 mm <sup>2</sup> 1.5 mm <sup>2</sup>
Conductor cross section AWG	24 14
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm² 1.5 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm² 1.5 mm²
Stripping length	7.5 mm

### Mounting



1704402

https://www.phoenixcontact.com/gb/products/1704402

Pin layout	Linear pinning	
erial specifications		
faterial data - contact		
Note	WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/JEDEC JESD 201	
Contact material	Cu alloy	
Surface characteristics	hot-dip tin-plated	
Metal surface terminal point (top layer)	Tin (10 - 16 μm Sn)	
Metal surface soldering area (top layer)	Tin (10 - 16 μm Sn)	
laterial data - housing		
Color (Housing)	green (6021)	
Insulating material	PA	
Insulating material group	T.	
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	
laterial data – actuating element		
Color (Actuating element)	green (6021)	
nensions		
Dimensional drawing	h ph	
Pitch	5.08 mm	
Width [w]	5.08 mm	

29 mm

24 mm

25.5 mm

3.5 mm

1.3 mm

0.7 x 1 mm

# Electrical tests

PCB design

Height [h]

Length [I]

Installed height

Pin dimensions

Hole diameter

Solder pin length [P]

Air clearances and creepage distances |



1704402

https://www.phoenixcontact.com/gb/products/1704402

Specification	IEC 60664-1:2007-04
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
Rated insulation voltage (III/2)	400 V
Rated surge voltage (III/2)	4 kV
minimum clearance value - non-homogenous field (III/2)	2 mm
minimum creepage distance (III/2)	2 mm
Rated insulation voltage (II/2)	630 V
Rated surge voltage (II/2)	4 kV
minimum clearance value - non-homogenous field (II/2)	3 mm
minimum creepage distance (II/2)	3.2 mm

#### Environmental and real-life conditions

#### 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

## Packaging specifications

Type of packaging	packed in cardboard

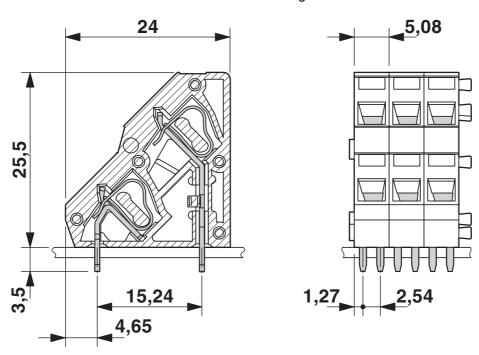


https://www.phoenixcontact.com/gb/products/1704402

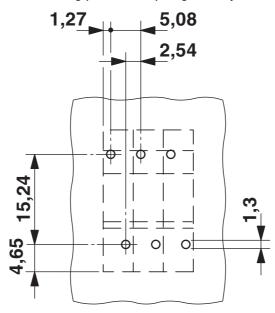


## Drawings

Dimensional drawing



## Drilling plan/solder pad geometry





1704402

https://www.phoenixcontact.com/gb/products/1704402

## **Approvals**

To download certificates, visit the product detail page: https://www.phoenixcontact.com/gb/products/1704402

CSA Approval ID: 13631				
	Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
Use group B				
	300 V	10 A	28 - 12	-
Use group D				
	300 V	10 A	28 - 12	-

cULus Recognized Approval ID: E60425-19941111				
	Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
Use group B				
	250 V	10 A	26 - 12	-
Use group D				
	300 V	10 A	26 - 12	-



1704402

https://www.phoenixcontact.com/gb/products/1704402

## Classifications

_	$\sim$	$\Lambda \cap \cap$
		A.7.7

	ECLASS-13.0	27460101		
ETIM				
	ETIM 9.0	EC002643		
UNSPSC				
	UNSPSC 21.0	39121400		



1704402

https://www.phoenixcontact.com/gb/products/1704402

## 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%			

Phoenix Contact 2025 @ - all rights reserved https://www.phoenixcontact.com

PHOENIX CONTACT Ltd Halesfield 13, Telford Shropshire, TF7 4PG 01952 681700 info@phoenixcontact.co.uk