

# SPT 2,5/ 3-V-5,0 EX MCRDGNGYBD - PCB terminal block



1161105

<https://www.phoenixcontact.com/us/products/1161105>

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Printed circuit board terminal, nominal current: 22 A, nominal cross section: 2.5 mm<sup>2</sup>, number of potentials: 3, number of rows: 1, number of positions per row: 3, product range: SPT 2,5/..-V-EX, pitch: 5 mm, connection method: Push-in spring connection, mounting: Wave soldering, conductor/PCB connection direction: 90 °, color: multicolored, Pin layout: Linear pinning, Solder pin [P]: 2.5 mm, number of solder pins per potential: 2, type of packaging: packed in cardboard. Satisfies the requirements of the "APL Port Profile Specification"

## Your advantages

- Time saving push-in connection, tools not required
- Defined contact force ensures that contact remains stable over the long term
- Clamping space opened by means of fixed screwdriver enables convenient conductor connection
- Operation and conductor connection from one direction enable integration into front of device
- Satisfies the more stringent safety requirements of "Ex eb" protection according to IEC 60079-7 for potentially explosive areas
- Two solder pins reduce the mechanical strain on the soldering spots

## Commercial data

Item number	1161105
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	AA13
Product key	AAMBFC
GTIN	4063151167882
Weight per piece (including packing)	4.204 g
Weight per piece (excluding packing)	3.81 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	SPT 2,5/..-V-EX
Product line	COMBICON Terminals M
Number of positions	3
Pitch	5 mm
Number of connections	3
Number of rows	1
Number of potentials	3
Pin layout	Linear pinning
Solder pins per potential	2

### Electrical properties

#### Properties

Nominal current $I_N$	22 A
Nominal voltage $U_N$	176 V
Rated current / conductor cross-section	22 A/2.5 mm <sup>2</sup>

#### Data transmission

Signal type	APL
Transmission medium	Copper
Transmission characteristics (category)	CAT A
Data transmission rate	10 Mbps

### Ex data

#### Ex approval

Identification	0344 $\otimes$ II 2GD / Ex eb IIC Gb
EU-type examination certificate	KEMA 07ATEX0193 U
IECEx certificate	IECEx KEM 07.0057 U

## Connection data

#### Connection technology

Nominal cross section	2.5 mm <sup>2</sup>
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#### Conductor connection

Connection method	Push-in spring connection
Conductor cross-section rigid	0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Conductor cross-section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section AWG	24 ... 14
Conductor cross-section flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> (Stripping length 8 mm)

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Conductor cross-section, flexible, with ferrule, with plastic sleeve	0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> (Stripping length 8 mm)
Stripping length	10 mm

## Mounting

Mounting type	Wave soldering
Pin layout	Linear pinning

## 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	hot-dip tin-plated
Metal surface terminal point (top layer)	Tin (4 - 8 µm Sn)
Metal surface soldering area (top layer)	Tin (4 - 8 µm Sn)

### Material data - housing

Color (Housing)	multicolored (-)
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	5 mm
Width [w]	16.4 mm
Height [h]	16.9 mm
Length [l]	13.5 mm
Installed height	14.4 mm
Solder pin length [P]	2.5 mm
Pin dimensions	0.8 x 0.8 mm

### PCB design

Pin spacing	8.2 mm
Hole diameter	1.2 mm

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## Environmental and real-life conditions

### Ambient conditions

Ambient temperature (operation)	-50 °C ... 110 °C
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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## Approvals

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 <b>cULus Recognized</b> Approval ID: E60425-20061129				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $mm^2$
B	300 V	20 A	24 - 12	-
D	150 V	15 A	24 - 12	-
C	150 V	20 A	24 - 12	-

 <b>ATEX</b> Approval ID: KEMA 07ATEX0193 U				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $mm^2$
keine	176 V	22 A	-	0.2 - 4

 <b>IECEx</b> Approval ID: IECEx KEM 07.0057U				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $mm^2$
keine	176 V	22 A	-	0.2 - 4

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## Classifications

### ECLASS

ECLASS-13.0	27460101
ECLASS-15.0	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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### EF3.0 Climate Change

CO2e kg	0.038 kg CO2e
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