

# CDDC 1,5/ 5-PV-3,5 - Direct connector



1016516

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PCB direct plug, nominal cross section: 1.5 mm<sup>2</sup>, color: green, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, number of potentials: 10, number of rows: 2, number of positions: 5, number of connections: 10, product range: CDDC 1,5/..-PV, pitch: 3.5 mm, connection method: Crimp connection, mounting: SKEDD - Direct plug-in technology, conductor/PCB connection direction: 90 °, pin layout: Linear pinning, plug-in system: SKEDD, locking: Snap-in locking, mounting: Self-locking flange, type of packaging: packed in cardboard

## Your advantages

- SKEDD direct plug-in technology enables flexible positioning on the PCB
- Reduced component and process costs: simple insertion by hand and vibration-resistant connection
- Contacts arranged in a double row enable high packing density in a compact area
- Wide range of applications, thanks to suitability for PCBs with chemically tin-plated or Hot Air Leveling (HAL) surface
- Cost-effective connection of crimped conductors in large quantities
- Tools for manual and automatic crimping available as an option

## Commercial data

Item number	1016516
Packing unit	1 pc
Minimum order quantity	100 pc
Sales key	AA02
Product key	AABDAA
GTIN	4055626498164
Weight per piece (including packing)	2.725 g
Weight per piece (excluding packing)	2 g
Customs tariff number	85472000
Country of origin	DE

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## Technical data

### Product properties

Product line	COMBICON Connectors S
Product type	PCB direct plug
Product family	CDDC 1,5/..-PV
Number of positions	5
Pitch	3.5 mm
Number of connections	10
Number of rows	2
Mounting flange	Self-locking flange
Number of potentials	10
Pin layout	Linear pinning

### Electrical properties

Nominal current $I_N$	8 A
Nominal voltage $U_N$	160 V
Degree of pollution	3
Contact resistance	1.5 m $\Omega$
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

Connector system	SKEDD
Nominal cross section	1.5 mm <sup>2</sup>

#### Interlock

Locking type	Snap-in locking
Mounting flange	Self-locking flange

#### Conductor connection

Connection method	Crimp connection
Connection direction of the conductor to plug-in direction	0 °
Conductor cross section flexible	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section AWG	26 ... 16

### Mounting

Mounting type	SKEDD - Direct plug-in technology
Pin layout	Linear pinning

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Connection method	Crimp connection
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## Material specifications

### 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

## Notes

General	The information on the basic material and the finish properties of the crimp contacts is to be found in the E-Shop in the technical data for the respective crimp contact.
General	All laboratory tests are performed in combination with the crimp contacts specified as accessories.

## Dimensions

Pitch	3.5 mm
Width [w]	24.8 mm
Height [h]	19.6 mm
Length [l]	13 mm
Installed height	16 mm

### PCB design

Pin spacing	7.00 mm
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## Mechanical tests

### Tensile strength of crimp connections

Result	Test passed
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Conductor cross section/conductor type/tractive force setpoint/actual value	0.14 mm <sup>2</sup> / flexible / > 18 N
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## Insertion and withdrawal forces

Result	Test passed
No. of cycles	25
Insertion strength per pos. approx.	4 N
Withdraw strength per pos. approx.	3 N

## Contact holder in insert

Specification	IEC 60512-15-1:2008-05
Contact holder in insert Requirements >20 N	Test passed

## Resistance of inscriptions

Specification	IEC 60068-2-70:1995-12
Result	Test passed

## Polarization and coding

Specification	IEC 60512-13-5:2006-02
Result	Test passed

## Visual inspection

Specification	IEC 60512-1-1:2002-02
Result	Test passed

## Dimension check

Specification	IEC 60512-1-2:2002-02
Result	Test passed

## Electrical tests

### Thermal test | Test group C

Specification	IEC 60512-5-1:2002-02
Tested number of positions	16

### Insulation resistance

Specification	IEC 60512-3-1:2002-02
Insulation resistance, neighboring positions	> 5 MΩ

### 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

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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

### 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	50 m/s <sup>2</sup> (60.1 Hz ... 150 Hz)
Test duration per axis	2.5 h

### Durability test

Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	2.95 kV
Contact resistance R <sub>1</sub>	1.5 mΩ
Contact resistance R <sub>2</sub>	1.6 mΩ
Insertion/withdrawal cycles	25
Insulation resistance, neighboring positions	> 5 MΩ

### Climatic test

Specification	ISO 6988:1985-02
Corrosive stress	0.2 dm <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> /40 °C/1 cycle
Thermal stress	105 °C/168 h
Power-frequency withstand voltage	1.39 kV

### Shocks

Specification	IEC 60068-2-27:2008-02
Pulse shape	Semi-sinusoidal
Acceleration	300 m/s <sup>2</sup>
Shock duration	18 ms
Test directions	X-, Y- and Z-axis (pos. and neg.)

### Ambient conditions

Ambient temperature (operation)	-55 °C ... 105 °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

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Type of packaging	packed in cardboard
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# CDDC 1,5/ 5-PV-3,5 - Direct connector

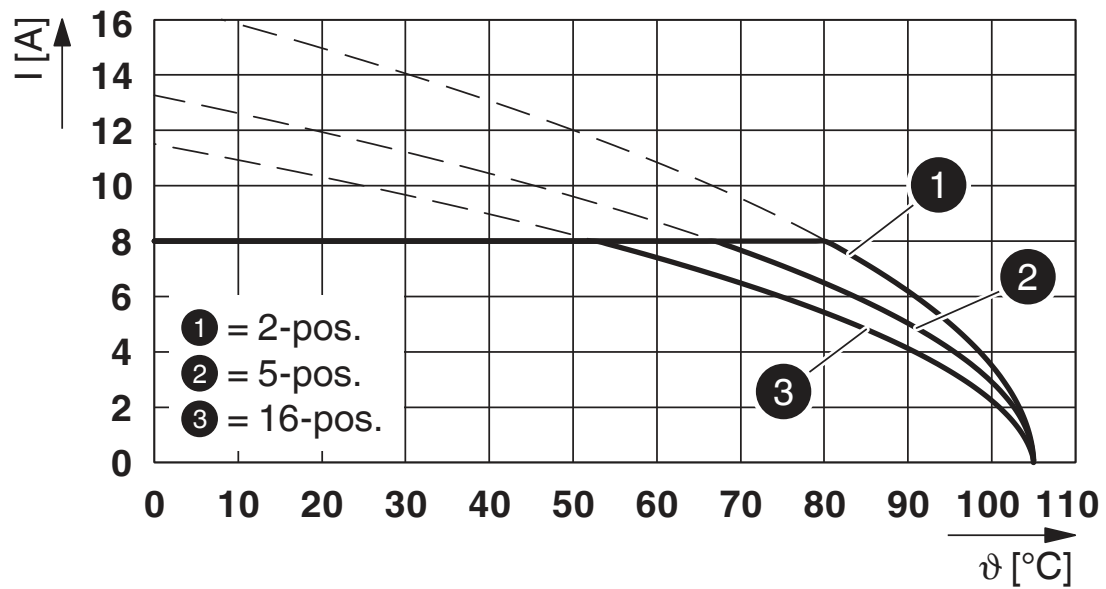


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## Drawings

Diagram



Type: CDDC 1,5/...-PV-3,5

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1016516>

 <b>cULus Recognized</b> Approval ID: E60425-20160718				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
Use group B	150 V	8 A	26 - 16	-
Use group D	300 V	8 A	26 - 16	-

 <b>VDE Zeichengenehmigung</b> Approval ID: 40044617				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	160 V	8 A	-	0.14 - 1.5



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## Classifications

### ECLASS

ECLASS-11.0	27460202
ECLASS-12.0	27460202
ECLASS-13.0	27460202

### ETIM

ETIM 8.0	EC002638
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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

### CP-PT 1,5 - Coding profile

1985564

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Coding profile, inserted into the hole on the plug, made from red insulating material, diameter: 1.35 mm



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### CDC-MP 0,14-0,5 - Crimp contact

1016664

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Crimp contact



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## CDC-MP 0,14-0,5-R - Crimp contact

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Crimp contact

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## CDC-MP 0,5-1,5 - Crimp contact

1016662

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Crimp contact

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## CDC-MP 0,5-1,5-R - Crimp contact

1016661

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Crimp contact

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