

# HSCP-SP 2,5-1U4-7035 - Printed-circuit board connector



2201780

<https://www.phoenixcontact.com/de/produkte/2201780>

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PCB connector, nominal cross section: 2.5 mm<sup>2</sup>, color: light grey, nominal current: 8 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of potentials: 4, number of rows: 2, number of positions: 4, number of connections: 4, product range: HSCP-SP 2,5-..., pitch: 5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, number of solder pins per potential: 1, locking clip: - Locking clip, plug-in system: HSC 2,5, locking: without, mounting: without, type of packaging: packed in cardboard, Color of the spring lever: orange

## Your advantages

- Time saving push-in connection, tools not required
- Defined contact force ensures that contact remains stable over the long term
- Intuitive use through colour coded actuation lever
- Operation and conductor connection from one direction enable integration into front of device
- Quick and convenient testing using integrated test option
- User-friendly front connection plug for high contact densities

## Commercial Data

Item number	2201780
Packing unit	50 pc
Minimum order quantity	1 pc
Sales Key	F1 - Elektronikgehäuse
Product Key	ACHECB
Catalog Page	Page 35 (NTK-2014)
GTIN	4046356911436
Weight per Piece (including packing)	3,426 g
Weight per Piece (excluding packing)	3,426 g
Customs tariff number	85366990
Country of origin	PL

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## Technical Data

### Product properties

Product type	PCB plug
Product family	HSCP-SP 2,5-..
Number of positions	4
Pitch	5 mm
Number of connections	4
Number of rows	2
Number of potentials	4
Solder pins per potential	1

### Electrical properties

Nominal current $I_N$	8 A
Nominal voltage $U_N$	320 V
Degree of pollution	3
Rated voltage (III/3)	250 V
Rated surge voltage (III/3)	4 kV
Rated voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV
Rated voltage (II/2)	600 V
Rated surge voltage (II/2)	4 kV

### Connection data

#### Connection technology

Connector system	HSC 2,5
Nominal cross section	2.5 mm <sup>2</sup>
Type of contact	Female connector

#### Interlock

Locking type	without
Mounting flange	without

#### Conductor connection

Connection method	Push-in spring connection
Conductor/PCB connection direction	0 °
Conductor cross section solid	0.2 mm <sup>2</sup> ... 1.5 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 ... 16
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Cylindrical gauge a x b / diameter	2.4 mm x 1.5 mm / 1.9 mm
Stripping length	10 mm

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## 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	Tin-plated

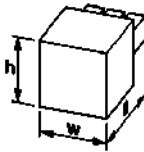
### Material data - housing

Color (Housing)	light grey (7035)
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

Color ()	()
Insulating material	PBT
Insulating material group	IIIa
CTI according to IEC 60112	275
Flammability rating according to UL 94	V0

## Dimensions

Dimensional drawing	
Pitch	5 mm
Width [w]	18.8 mm
Height [h]	10.9 mm
Length [l]	21.6 mm

## Mounting

### Processing notes

Moisture Sensitive Level	MSL 1
Classification temperature $T_c$	260 °C
Solder cycles in the reflow	3

## Notes

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Assembly instruction:	Refer to the data sheet for the range in the download area.
Safety note	
Safety note	WARNING: The connectors may not be plugged in or disconnected under load. Ignoring the warning or improper use may damage persons and/or property.
	<ul style="list-style-type: none"> <li>• WARNING: Commission properly functioning products only. The products must be regularly inspected for damage. Decommission defective products immediately. Replace damaged products. Repairs are not possible.</li> </ul>
	<ul style="list-style-type: none"> <li>• WARNING: Only electrically qualified personnel may install and operate the product. They must observe the following safety notes. The qualified personnel must be familiar with the basics of electrical engineering. They must be able to recognize and prevent danger. The relevant symbol on the packaging indicates that only personnel familiar with electrical engineering are allowed to install and operate the product.</li> </ul>
	<ul style="list-style-type: none"> <li>• The item is intended to be an unencapsulated plug for installation in a housing.</li> <li>• Operate the connector only when it is fully plugged in.</li> </ul>

## Environmental and real-life conditions

### Ambient conditions

Ambient temperature (operation)	-40 °C ... 105 °C (dependent on the derating curve)
Ambient temperature (storage/transport)	-40 °C ... 55 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C

## 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)	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)	320 V
Rated surge voltage (III/2)	4 kV
minimum clearance value - non-homogenous field (III/2)	3 mm
minimum creepage distance (III/2)	3 mm
Rated insulation voltage (II/2)	600 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

## Packaging specifications

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Type of packaging	packed in cardboard
Outer packaging type	Carton

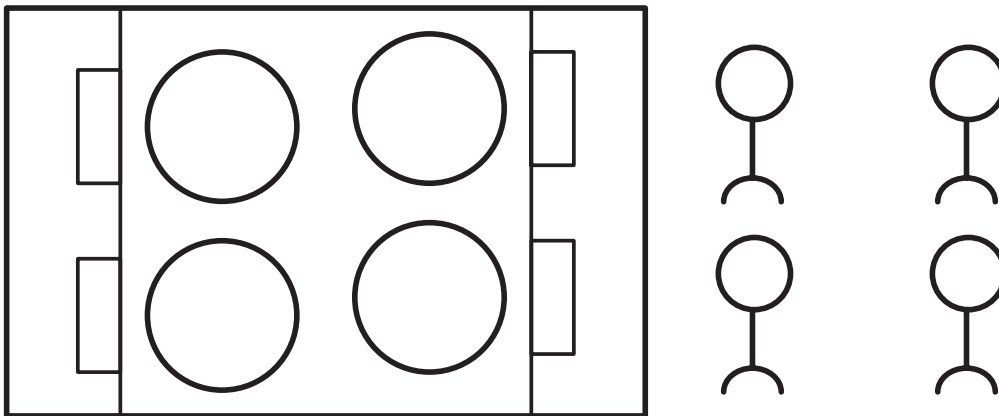
# HSCP-SP 2,5-1U4-7035 - Printed-circuit board connector

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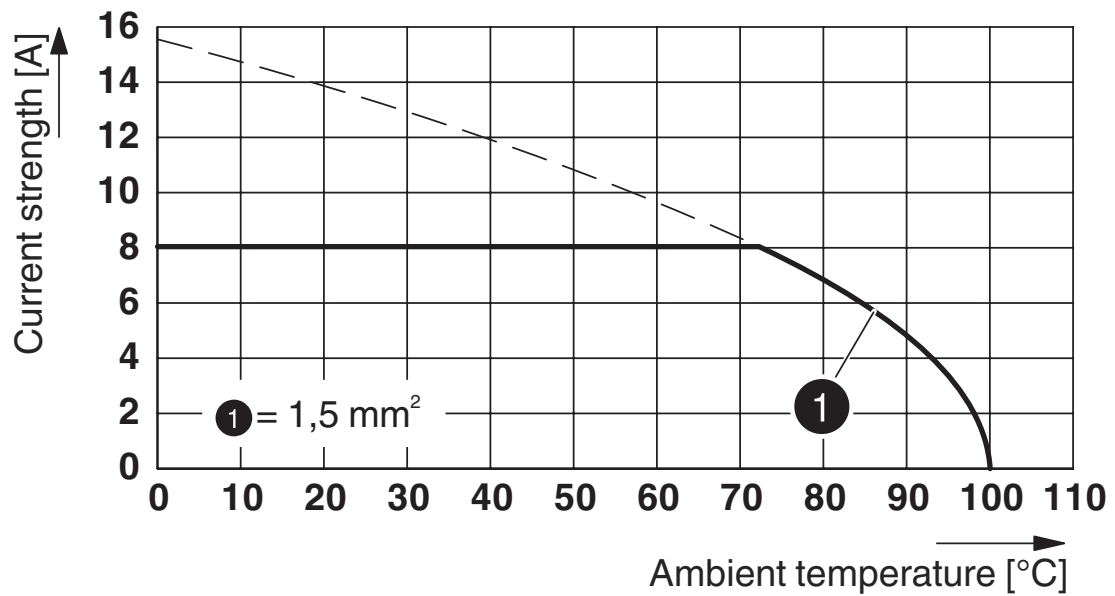
<https://www.phoenixcontact.com/de/produkte/2201780>

## Drawings

Schematic diagram



Diagram



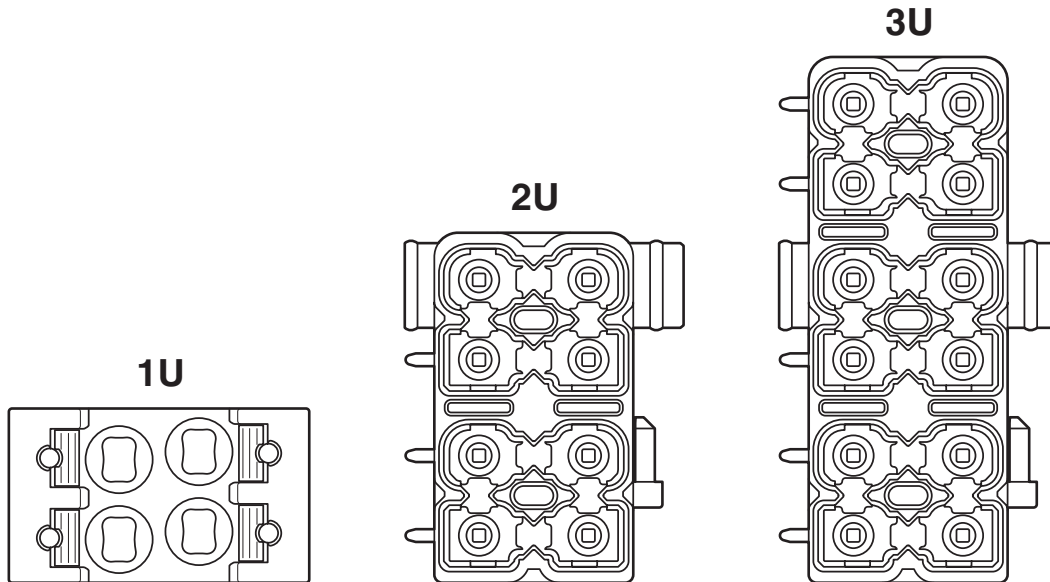
Type: HSCP-SP 2,5... with HSCH 2,5...

# HSCP-SP 2,5-1U4-7035 - Printed-circuit board connector

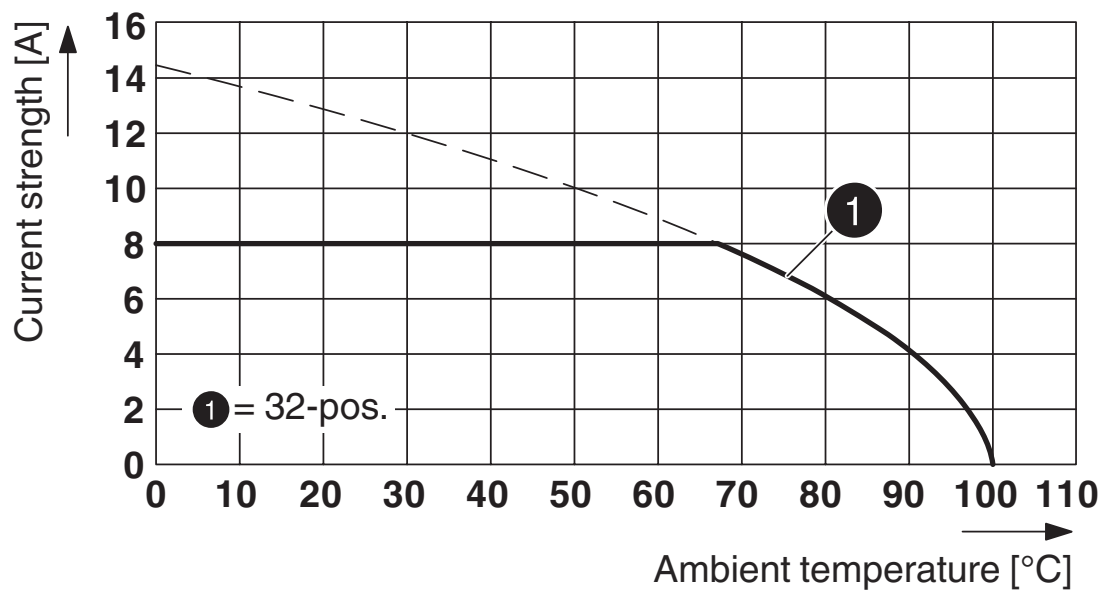
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Schematic diagram



Diagram



Type: HSCP-SP 2,5-... with HSCH 2,5-...U/... THR 9005

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Schematic diagram

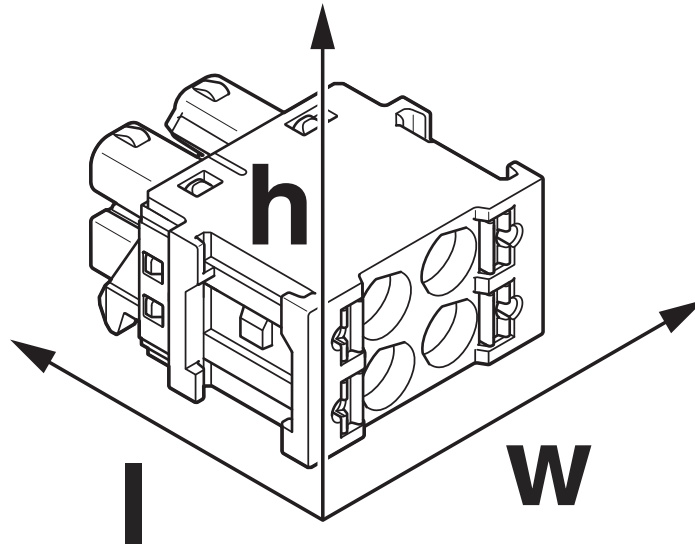


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Schematic diagram



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## Approvals

 <b>IECEE CB Scheme</b> Approval ID: DE1-58278				
	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $mm^2$
	630 V	8 A	-	0.2 - 2.5

 <b>EAC</b> Approval ID: B.01687				
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 <b>cULus Recognized</b> Approval ID: E60425-20150613				
	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $mm^2$
Use group B				
	150 V	8 A	24 - 16	-
Only flexible conductors	150 V	8 A	24 - 14	-
Use group D				
	300 V	8 A	24 - 16	-
Only flexible conductors	300 V	8 A	24 - 14	-

 <b>VDE Zeichengenehmigung</b> Approval ID: 40045764				
	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $mm^2$
	630 V	8 A	-	0.2 - 2.5

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## Classifications

### ECLASS

ECLASS-9.0	27440309
ECLASS-10.0.1	27440309
ECLASS-11.0	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-DMC 1,5 NAT - Coding profile

1790647

<https://www.phoenixcontact.com/de/produkte/1790647>

Coding profile, for insertion between the coding ribs of the connector and the header following the reflow soldering process, insulating material, color: natural



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### MPS-MT 1-S4-B RD - Accessories

1982800

<https://www.phoenixcontact.com/de/produkte/1982800>

Test plug terminal block, Accessories



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## CRIMPFOX 6 - Crimping pliers

1212034

<https://www.phoenixcontact.com/de/produkte/1212034>



Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 0.25 mm<sup>2</sup> ... 6.0 mm<sup>2</sup>, lateral entry, trapezoidal crimp

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## SZS 0,4X2,5 VDE - Screwdriver

1205037

<https://www.phoenixcontact.com/de/produkte/1205037>



Screwdriver, slot-headed, VDE insulated, size: 0.4 x 2.5 x 80 mm, 2-component grip, with non-slip grip

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PHOENIX CONTACT Deutschland GmbH  
Flachsmarktstraße 8  
D-32825 Blomberg  
+49 52 35/3-1 20 00  
[info@phoenixcontact.de](mailto:info@phoenixcontact.de)