

# HSCP-SP 2,5-1U4-7035 - PCB connectors



2201780

<https://www.phoenixcontact.com/us/products/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, contact connection type: Socket, 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 °, 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 operation due to color-coded actuating push button
- 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	50 pc
Sales key	AC15
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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2201780

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## Technical data

### Product properties

Product type	PCB connector
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

### Electrical properties

Nominal current $I_N$	8 A
Nominal voltage $U_N$	320 V
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>
Contact connection type	Socket

#### Interlock

Locking type	without
Mounting flange	without

#### Conductor connection

Connection method	Push-in spring connection
Conductor/PCB connection direction	0 °
Conductor cross section rigid	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

### Material specifications

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2201780

<https://www.phoenixcontact.com/us/products/2201780>

## 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

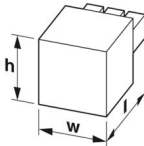
## Material data - housing

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

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

Assembly note	Refer to the data sheet for the range in the download area.
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### 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

Type of packaging	packed in cardboard
Outer packaging type	Carton

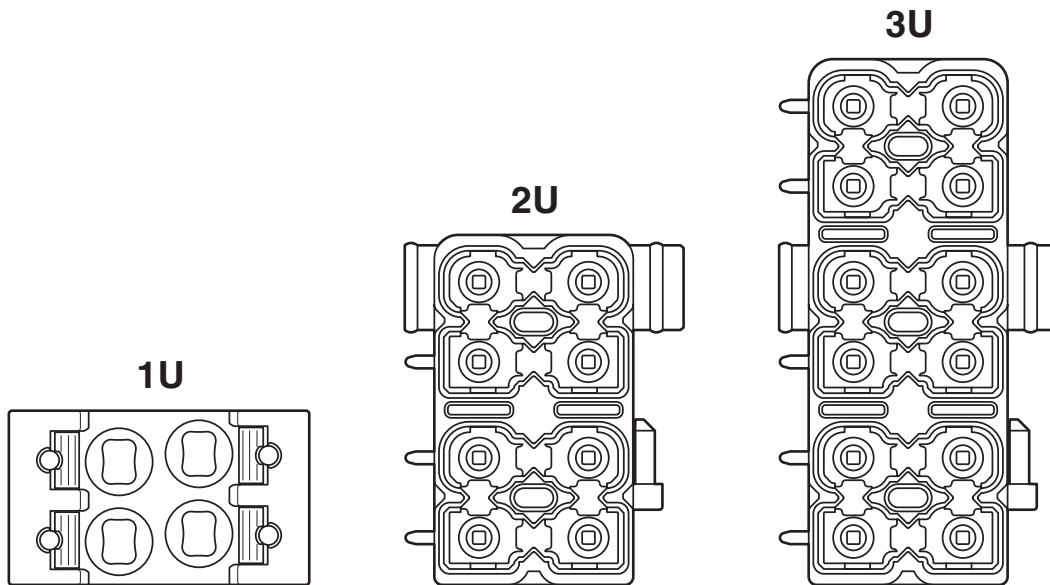
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2201780

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## Drawings

Schematic diagram

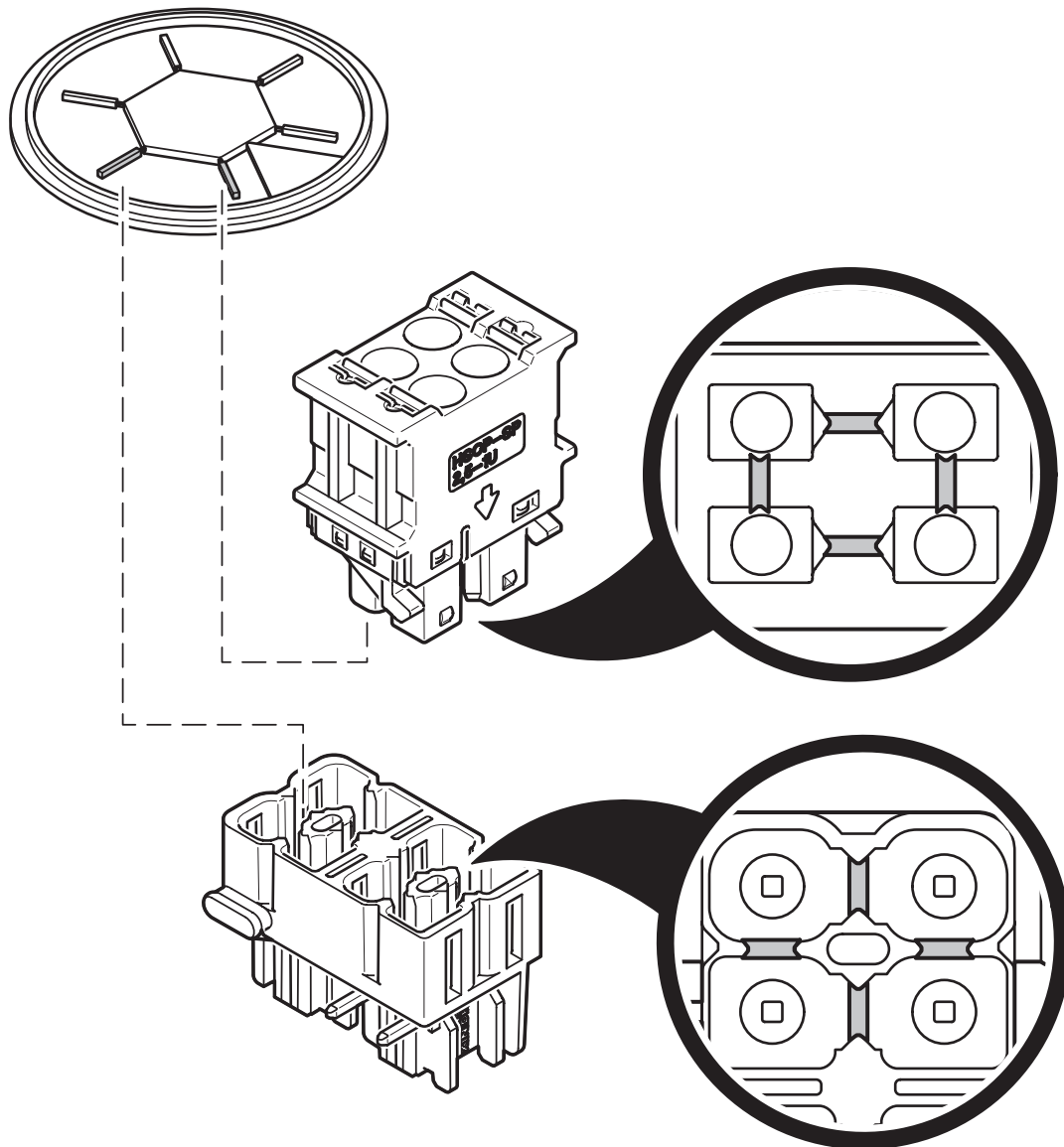


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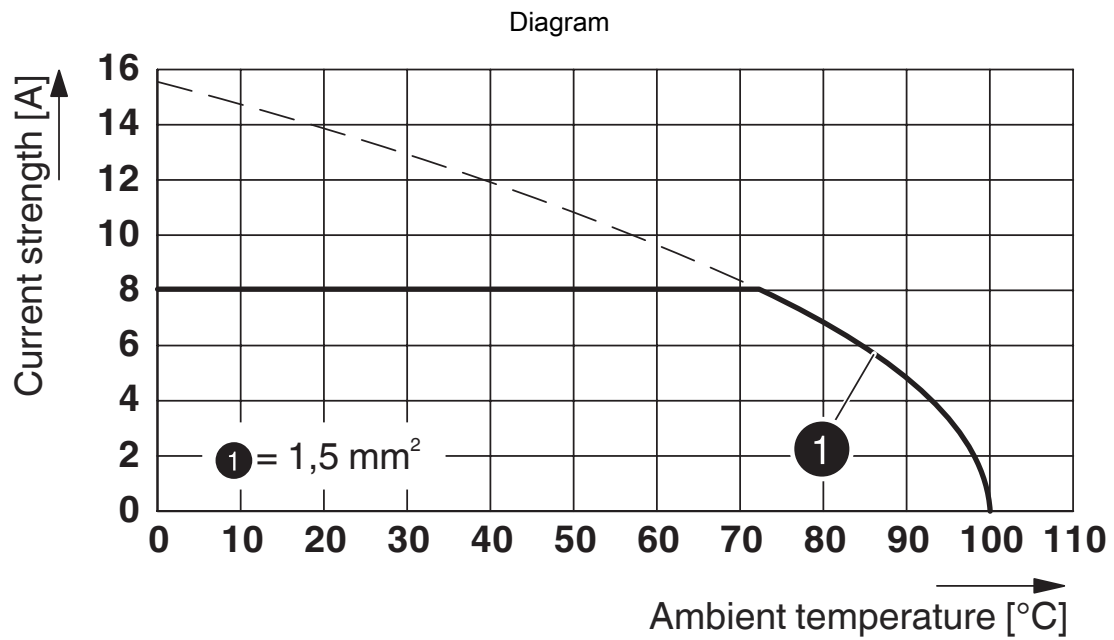
<https://www.phoenixcontact.com/us/products/2201780>

Schematic diagram



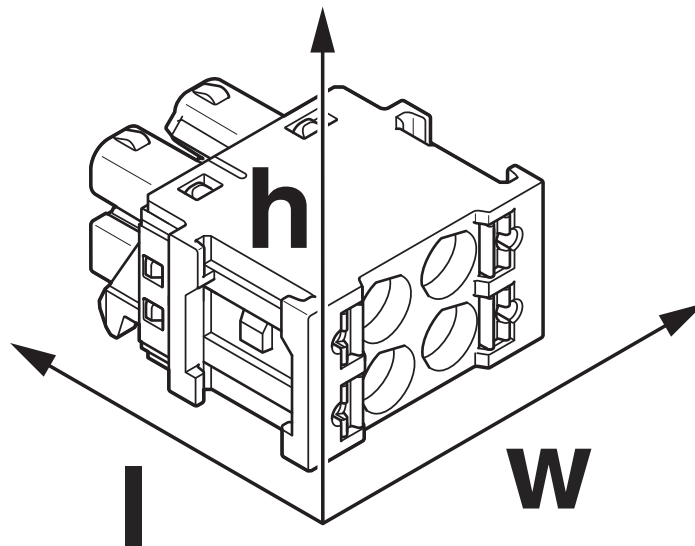
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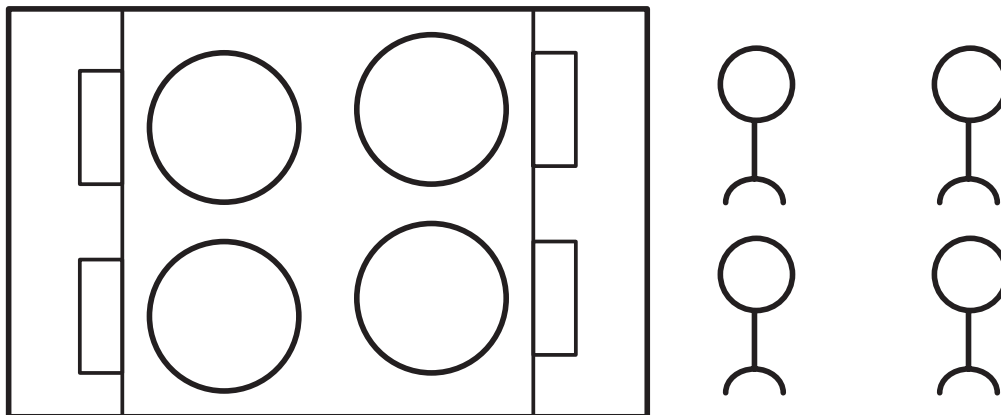


Type: HSCP-SP 2,5... with HSCH 2,5...

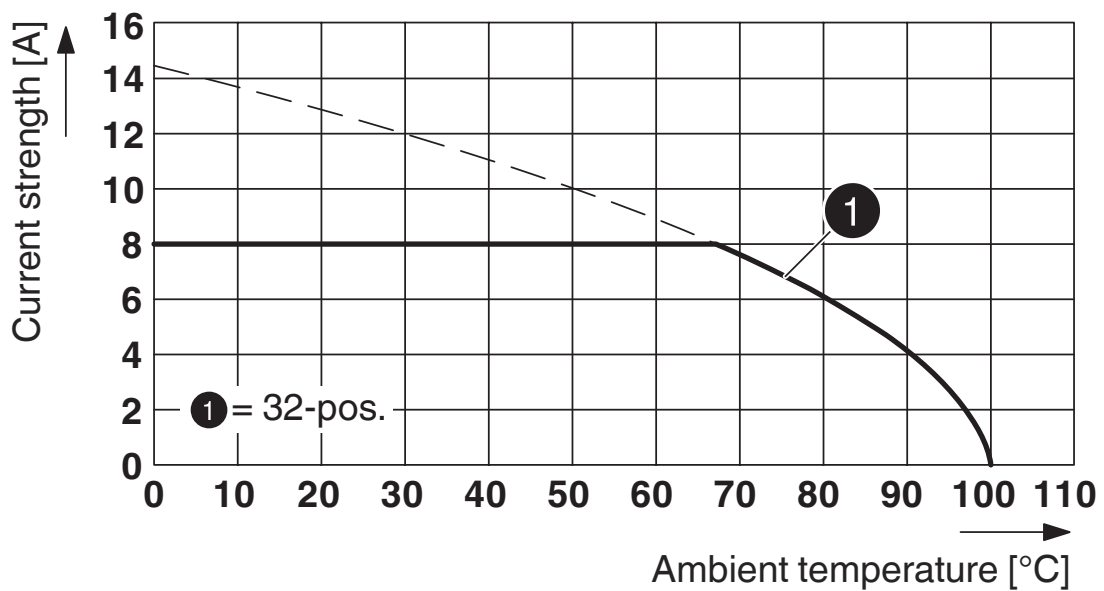
Schematic diagram



Schematic diagram



Diagram



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



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2201780

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2201780>

 <b>cULus Recognized</b> Approval ID: E60425-20150613				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
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 $\text{mm}^2$
	630 V	8 A	-	0.2 - 2.5

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## Classifications

### ECLASS

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

### ETIM

ETIM 9.0	EC002638
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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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## Accessories

### CP-DMC 1,5 NAT - Coding profile

1790647

<https://www.phoenixcontact.com/us/products/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/us/products/1982800>

Test plug terminal block



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## CRIMPFOX 6 - Crimping pliers

1212034

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