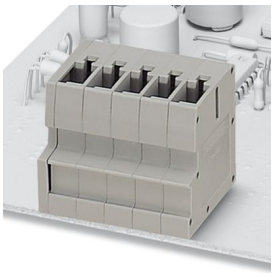
ST 4-PCBV/ 6-G-6,2 - PCB header

1980747

https://www.phoenixcontact.com/us/products/1980747

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ST-COMBI receptacle, plug-in direction vertical to the PCB, pitch: 6.2 mm, no. of positions: 6

Your advantages

- Universal plug-in solutions from the DIN rail through to the device can be implemented with the same plug
- The pitch width of this base strip is matched to that of the COMBI plug

Commercial data

Item number	1980747
Packing unit	50 pc
Minimum order quantity	50 pc
Note	Made to order (non-returnable)
Sales key	AA03
Product key	AACSOB
Catalog page	Page 326 (C-1-2019)
GTIN	4017918972417
Weight per piece (including packing)	16.9 g
Weight per piece (excluding packing)	15.787 g
Customs tariff number	85366930
Country of origin	PL

Technical data

Product properties

Product type	PCB headers
Product family	ST 4-PCBV/..-G
Product line	COMBICON Connectors M
Number of positions	6
Pitch	6.2 mm
Number of rows	1
Mounting flange	without
Pin layout	Zigzag pinning W
Solder pins per potential	2

Electrical properties

Nominal current I_N	26 A
Nominal voltage U_N	1000 V
Contact resistance	0.7 mΩ
Rated voltage (III/3)	800 V
Rated surge voltage (III/3)	8 kV
Rated voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV
Rated voltage (II/2)	1000 V
Rated surge voltage (II/2)	6 kV

Mounting

Mounting type	Wave soldering
Pin layout	Zigzag pinning W

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
Metal surface contact area (top layer)	Tin (4 - 8 µm Sn)
Metal surface soldering area (top layer)	Tin (4 - 8 µm Sn)

Material data - housing

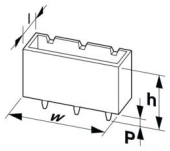
Color (Housing)	gray (7042)
Insulating material	PA
Insulating material group	I
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0
Glow wire flammability index GWFI according to EN 60695-2-12	850

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

Note on application	In accordance with IEC 61984, COMBICON connectors have no switching power (COC). During designated use, they must not be plugged in or disconnected when carrying voltage or under load.

Dimensions

Dimensional drawing	
Pitch	6.2 mm
Width [w]	39.25 mm
Height [h]	28.6 mm
Length [l]	25.95 mm
Installed height	25.1 mm
Solder pin length [P]	3.5 mm
Pin dimensions	1.21.3 mm

PCB design

Hole diameter	2 mm

Mechanical tests

Visual inspection

Specification	IEC 60512-2:1985-00
Result	Test passed

Dimension check

Specification	IEC 60512-2:1985-00
Result	Test passed

Resistance of inscriptions

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

Polarization and coding

Specification	IEC 60512-7:1993-08 (Polarization)
Result	Test passed

Contact holder in insert

Specification	IEC 60512-8:1993-01

Contact holder in insert Requirements >20 N	Test passed

Insertion and withdrawal forces

Result	Test passed
No. of cycles	50
Insertion strength per pos. approx.	8 N
Withdraw strength per pos. approx.	6 N

Electrical tests

Thermal test | Test group C

Specification	IEC 60512-5-1:2002-02
Tested number of positions	12

Insulation resistance

Specification	IEC 60512-2:1985-00
Insulation resistance, neighboring positions	$10^{12}\ \Omega$

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)	800 V
Rated surge voltage (III/3)	8 kV
minimum clearance value - non-homogenous field (III/3)	8 mm
minimum creepage distance (III/3)	10 mm
Rated insulation voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV
minimum clearance value - non-homogenous field (III/2)	8 mm
minimum creepage distance (III/2)	8 mm
Rated insulation voltage (II/2)	1000 V
Rated surge voltage (II/2)	6 kV
minimum clearance value - non-homogenous field (II/2)	5.5 mm
minimum creepage distance (II/2)	5.5 mm

Environmental and real-life conditions

Vibration test

Specification	IEC 60068-2-6:1995-03
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 Hz ... 60.1 Hz)
Acceleration	5g (60.1 Hz ... 150 Hz)
Test duration per axis	2.5 h

Durability test

Specification	IEC 60512-5:1992-08
Impulse withstand voltage at sea level	9.8 kV
Contact resistance R_1	0.7 mΩ
Contact resistance R_2	1 mΩ
Insertion/withdrawal cycles	50

Climatic test

Specification	ISO 6988:1985-02
Corrosive stress	KFW 0.2 S/1 cycle
Thermal stress	100 °C/168 h
Power-frequency withstand voltage	4.26 kV

Ambient conditions

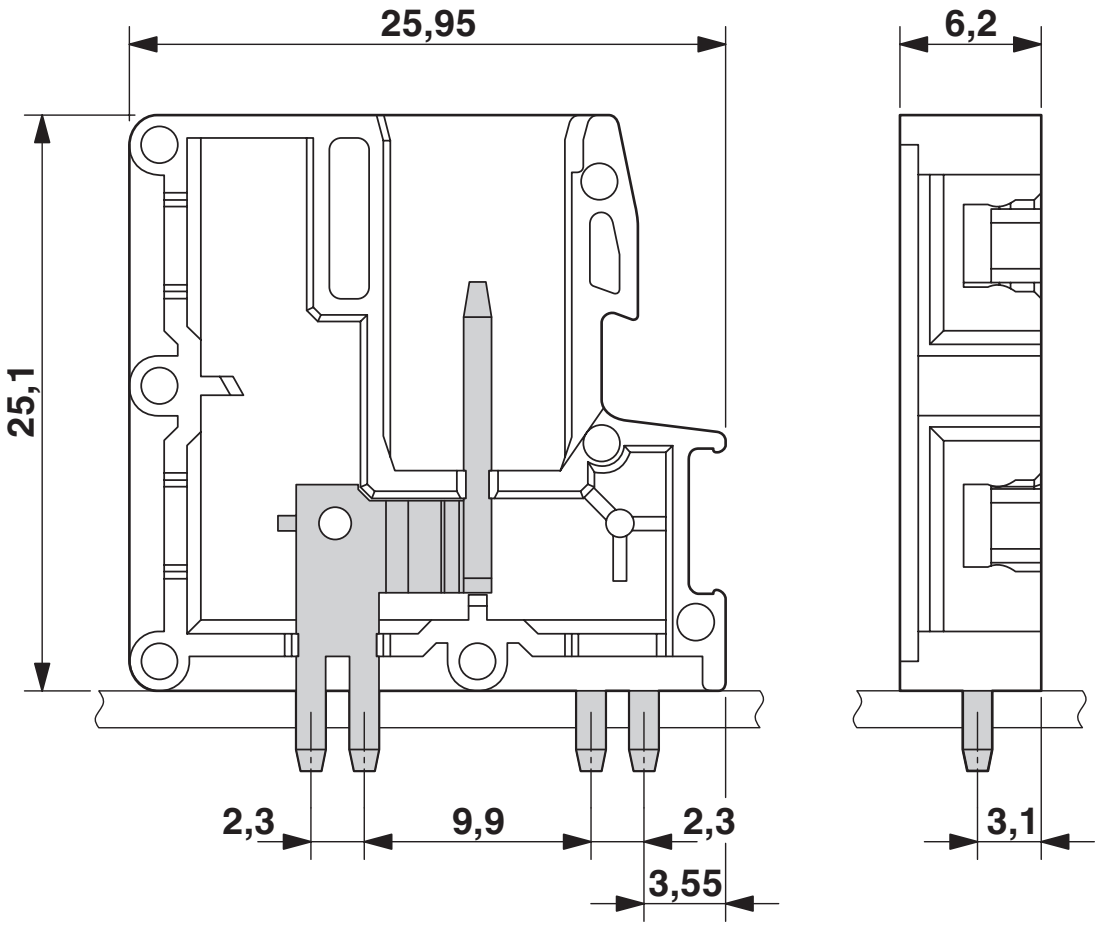
Ambient temperature (operation)	-40 °C ... 100 °C (dependent on the derating curve)
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C

Packaging specifications

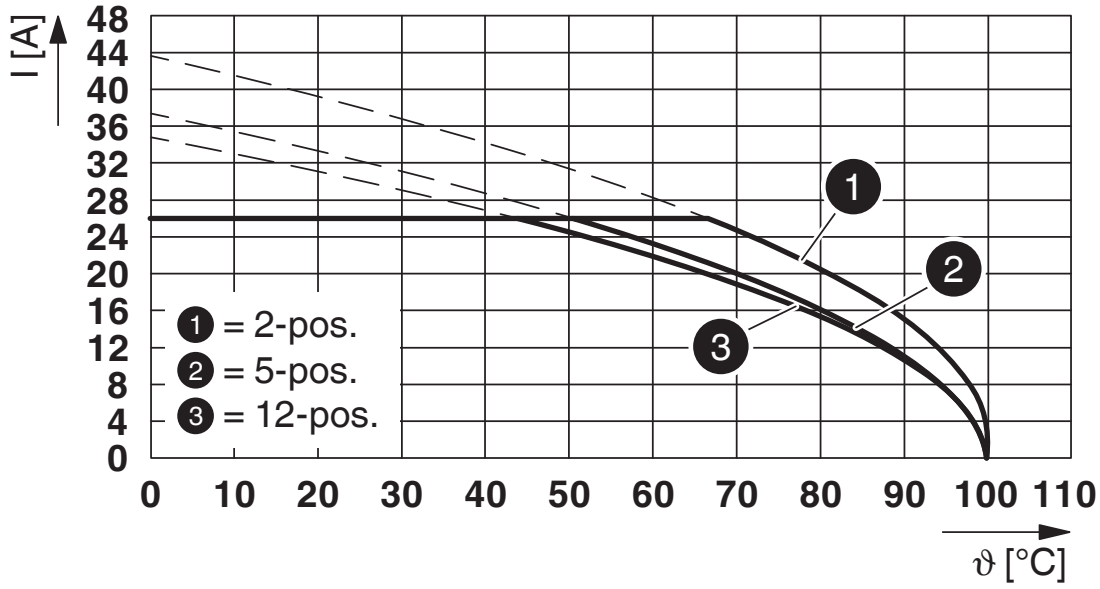
Type of packaging	packed in cardboard

Drawings

Dimensional drawing



Diagram



Type: SP 4/... with ST 4-PCBV/...-G-6,2

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1980747

EAC
Approval ID: RU C-DE.A*30.B.01742

cULus Recognized
Approval ID: E60425-19941110

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B				
	600 V	20 A	-	-
Use group C				
	600 V	20 A	-	-

Classifications

ECLASS

ECLASS-11.0	27460201
ECLASS-12.0	27460201
ECLASS-13.0	27460201

ETIM

ETIM 9.0	EC002637

UNSPSC

UNSPSC 21.0	39121400

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%

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