

## Sample set - SAMPLE PTSM 0,5/ 2-HV-2,5-THR - 1785906

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)

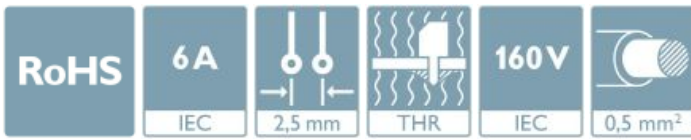


PCB header, nominal cross section: 0.5 mm<sup>2</sup>, color: black, nominal current: 6 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Male connector, Number of potentials: 2, Number of rows: 1, Number of positions per row: 2, number of connections: 2, product range: PTSM 0,5/..-HV-THR, pitch: 2.5 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.1 mm, plug-in system: COMBICON COMPACT PTSM, Locking: without, type of packaging: packed in cardboard


The figure shows the 3-pos. version

### Your advantages

- ✓ Designed for integration into the SMT soldering process
- ✓ Supplied in tape-on-reel packing according to IEC 60286-3 for automated mounting
- ✓ Vertical connection enables multi-row arrangement on the PCB



### Key Commercial Data

Packing unit	5 pc
Minimum order quantity	5 pc
GTIN	 4 046356 570725
GTIN	4046356570725
Weight per Piece (excluding packing)	1.000 g
Custom tariff number	85366930
Country of origin	India
Sales Key	AACMBA

### Technical data

#### Item properties

Brief article description	Feed-through header
Plug-in system	COMBICON COMPACT PTSM
Type of contact	Male connector
Range of articles	PTSM 0,5/..-HV-THR
Pitch	2.5 mm
Number of positions	2
Mounting type	THR soldering

## Sample set - SAMPLE PTSM 0,5/ 2-HV-2,5-THR - 1785906

### Technical data

#### Item properties

Pin layout	Linear pinning
Locking	without
Number of levels	1
Number of connections	2
Number of potentials	2
Pin connector pattern alignment	Standard

#### Electrical parameters

Nominal current	6 A
Nom. voltage	160 V
Rated voltage (III/3)	50 V
Rated voltage (III/2)	160 V
Rated voltage (II/2)	160 V
Rated surge voltage (III/3)	2.5 kV
Rated surge voltage (III/2)	2.5 kV
Rated surge voltage (II/2)	2.5 kV

#### 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 (3 - 5 µm Sn)
Metal surface contact area (middle layer)	Nickel (1.3 - 3 µm Ni)
Metal surface soldering area (top layer)	Tin (3 - 5 µm Sn)
Metal surface soldering area (middle layer)	Nickel (1.3 - 3 µm Ni)

#### Material data - housing

Housing color	black (9005)
Insulating material	LCP
Insulating material group	IIIa
CTI according to IEC 60112	175
Flammability rating according to UL 94	V0

#### Flange specifications

Type of locking	without
Mounting flange	without

#### Dimensions for the product

Caption	Schematische Abbildung - weitere Details siehe Produktfamilienzeichnung im Download Center
Length [ l ]	5 mm
Width [ w ]	6.7 mm
Height [ h ]	9.6 mm

## Sample set - SAMPLE PTSM 0,5/ 2-HV-2,5-THR - 1785906

### Technical data

#### Dimensions for the product

Pitch	2.5 mm
Height (without solder pin)	7.5 mm
Solder pin [P]	2.1 mm
Pin spacing	2.50 mm
Pin dimensions	0.6 x 0.6 mm

#### Dimensions for PCB design

Hole diameter	1.1 mm
Pin spacing	2.50 mm

#### Packaging information

Type of packaging	packed in cardboard
Pieces per package	5
Denomination packing units	Pcs.

#### Processing notes

Process	Reflow/wave soldering
Specification	Following IPC/JEDEC J-STD-020D.1:2008-03
	Following IEC 61760-1:2006-04
	Following IEC 60068-2-58:2005-02
Moisture Sensitive Level	MSL 1
Classification temperature T <sub>c</sub>	260 °C
Solder cycles in the reflow	3

#### Ambient conditions

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

#### Air clearances and creepage distances

Clearances and creepage distances	IEC 60664-1:2007-04
Specification	IEC 60664-1:2007-04
Minimum clearance - inhomogeneous field (III/3)	1.5 mm
Minimum clearance - inhomogeneous field (III/2)	1.5 mm
Minimum clearance - inhomogeneous field (II/2)	1.5 mm
Minimum creepage distance value (III/3)	1.9 mm
Minimum creepage distance value (III/2)	1.6 mm
Minimum creepage distance value (II/2)	1.6 mm

#### Mechanical tests (A)

Test specification	IEC 61984
Insertion strength per pos. approx.	5 N
Withdraw strength per pos. approx.	4 N
Polarization when inserted requirement >20 N	Test passed

## Sample set - SAMPLE PTSM 0,5/ 2-HV-2,5-THR - 1785906

### Technical data

#### Mechanical tests (A)

Contact holder in insert requirements >20 N	Test passed
---	-------------

#### Durability tests (B)

Specification	IEC 60512-9-1:2010-03
Contact resistance R <sub>1</sub>	3 mΩ
Insertion/withdrawal cycles	10
Contact resistance R <sub>2</sub>	4 mΩ
Impulse withstand voltage at sea level	2.95 kV

#### Thermal tests (C)

Specification	IEC 60512-5-1:2002-02
Number of positions	8
Upper limiting temperature requirements <100 °C	Test passed

#### Climatic tests (D)

Specification	ISO 6988:1985-02
Cold stress	-40 °C/2 h
Thermal stress	100 °C/168 h
Corrosive stress	0.2 dm <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> /40 °C/1 cycle
Impulse withstand voltage at sea level	2.95 kV
Power-frequency withstand voltage	1.39 kV

#### Environmental and durability tests (E)

Specification	IEC 61984:2008-10
Result, degree of protection, IP code	Finger safety with IP20 test finger

#### Vibration test

Specification	IEC 60068-2-6:2007-12
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 - 60.1 Hz)
Acceleration	5 g (60.1 - 150 Hz)
Test duration per axis	2.5 h

#### Standards and Regulations

Connection in acc. with standard	EN-VDE
Flammability rating according to UL 94	V0

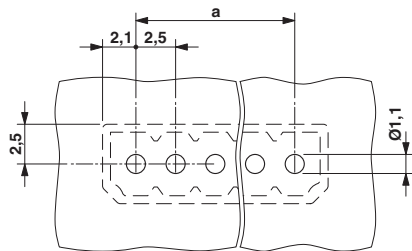
#### Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

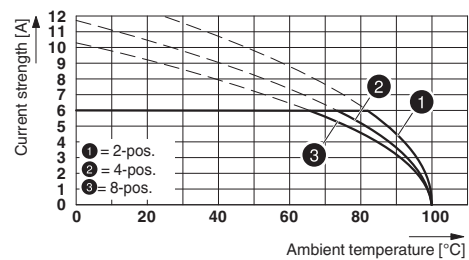
### Drawings

# Sample set - SAMPLE PTSM 0,5/ 2-HV-2,5-THR - 1785906

Drilling diagram

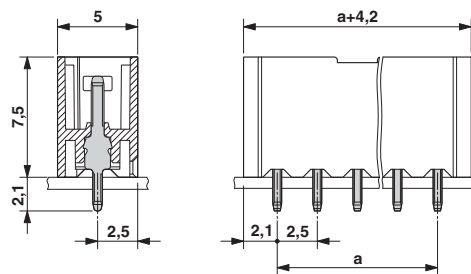


Diagram



Derating curve for: PTSM 0,5/...-P-2,5 with PTSM 0,5/...-HV-2,5-THR R...

Dimensional drawing



## Classifications

eCl@ss

eCl@ss 10.0.1	27440402
eCl@ss 11.0	27460201
eCl@ss 4.0	27260700
eCl@ss 4.1	27260700
eCl@ss 5.0	27260700
eCl@ss 5.1	27260700
eCl@ss 6.0	27260700
eCl@ss 7.0	27440402
eCl@ss 9.0	27440402

ETIM

ETIM 3.0	EC001121
ETIM 4.0	EC002637
ETIM 6.0	EC002637
ETIM 7.0	EC002637

UNSPSC

UNSPSC 6.01	30211810
UNSPSC 7.0901	39121409
UNSPSC 11	39121409
UNSPSC 12.01	39121409

# Sample set - SAMPLE PTSM 0,5/ 2-HV-2,5-THR - 1785906

## Classifications

### UNSPSC

UNSPSC 13.2	39121409
UNSPSC 18.0	39121409
UNSPSC 19.0	39121409
UNSPSC 20.0	39121409
UNSPSC 21.0	39121409

## Approvals

### Approvals

---

Approvals

EAC

---

Ex Approvals

---

### Approval details

EAC		B.01687
-----	--	---------

## Accessories

### Additional products

Printed-circuit board connector - PTSM 0,5/ 2-HV-2,5-THR R32 - 1778557



PCB header, nominal cross section: 0.5 mm<sup>2</sup>, color: black, nominal current: 6 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Male connector, Number of potentials: 2, Number of rows: 1, Number of positions per row: 2, number of connections: 2, product range: PTSM 0,5/..-HV-THR, pitch: 2.5 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2 mm, plug-in system: COMBICON COMPACT PTSM, Locking: without, type of packaging: 32 mm wide tape