

Feed-through header - PTSM 0,5/ 7-HTB-2,5-SMD WH R44 - 1830171

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PCB headers, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm², number of positions: 7, pitch: 2.5 mm, color: white, contact surface: Tin, mounting: SMD soldering, pin layout: Linear pad geometry


The figure shows a 3-position version

Your advantages

- White design: Stable color when welding and during use
- Designed for integration into the SMT soldering process
- Supplied in tape-on-reel packing according to IEC 60286-3 for automated mounting
- Additional solder anchors reduce the mechanical strain on the soldering spots
- Through-board header for low plug-in connection height on the PCB



Key Commercial Data

Packing unit	330 pc
Minimum order quantity	330 pc
GTIN	 4 046356 884778
GTIN	4046356884778

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/..-HTB-SMD WH
Pitch	2.5 mm
Number of positions	7
Mounting type	SMD soldering
Pin layout	Linear pad geometry
Locking	without

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Technical data

Item properties

Number of levels	1
Number of connections	7
Number of potentials	7

Electrical parameters

Nominal current	6 A
Nom. voltage	160 V
Rated voltage	125 V
Rated voltage (III/2)	160 V
Rated voltage (II/2)	250 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	white (9010)
Insulating material	PA
Insulating material group	I
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0

Dimensions for the product

Length [l]	9.5 mm
Width [w]	22.2 mm
Height [h]	8.2 mm
Pitch	2.5 mm
Height (without solder pin)	8.2 mm

Packaging information

Type of packaging	44 mm wide tape
Pieces per package	330
Denomination packing units	Pcs.
[W] tape width	44 mm
[A] coil diameter	330 mm

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Packaging information

[W2] coil overall dimension	50.4 mm
Outer packaging type	Transparent-Bag

Processing notes

Process	Reflow soldering
Specification	Following IPC/JEDEC J-STD-020D.1:2008-03
	Following IEC 60068-2-58:2005-02
Moisture Sensitive Level	MSL 1
Classification temperature T _c	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)	1.5 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.	3 N
Polarization when inserted requirement >20 N	Test passed
Contact holder in insert requirements >20 N	Test passed

Durability tests (B)

Specification	IEC 60512-9-1:2010-03
Contact resistance R ₁	2.4 mΩ
Insertion/withdrawal cycles	10
Contact resistance R ₂	2.3 mΩ
Impulse withstand voltage at sea level	2.95 kV
Power-frequency withstand voltage	1.39 kV

Thermal tests (C)

Specification	IEC 60512-5-1:2002-02
Number of positions	8

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Thermal tests (C)

Conductor cross section	0.5 mm ²
Test current	6 A DC
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 ³ SO ₂ on 300 dm ³ /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
Result	Test passed
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	UL
Flammability rating according to UL 94	V0

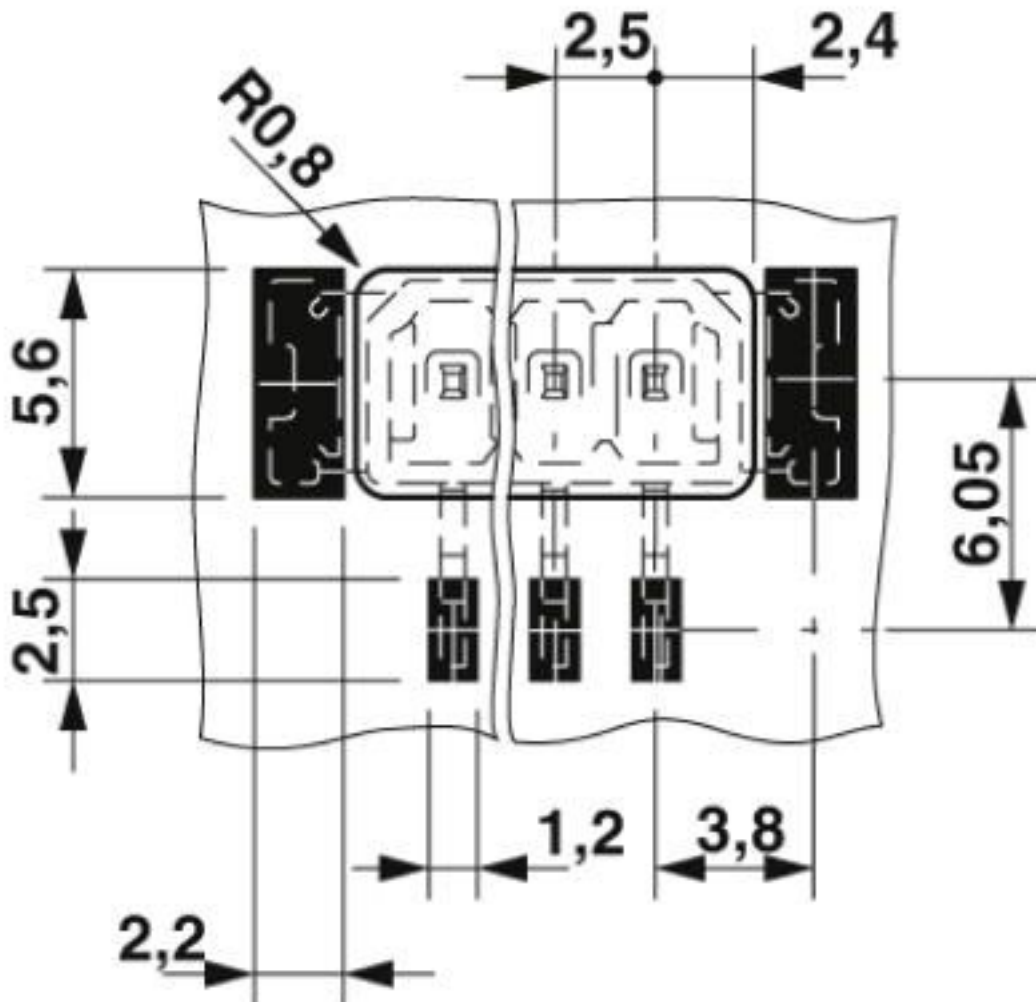
Environmental Product Compliance

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

Drawings

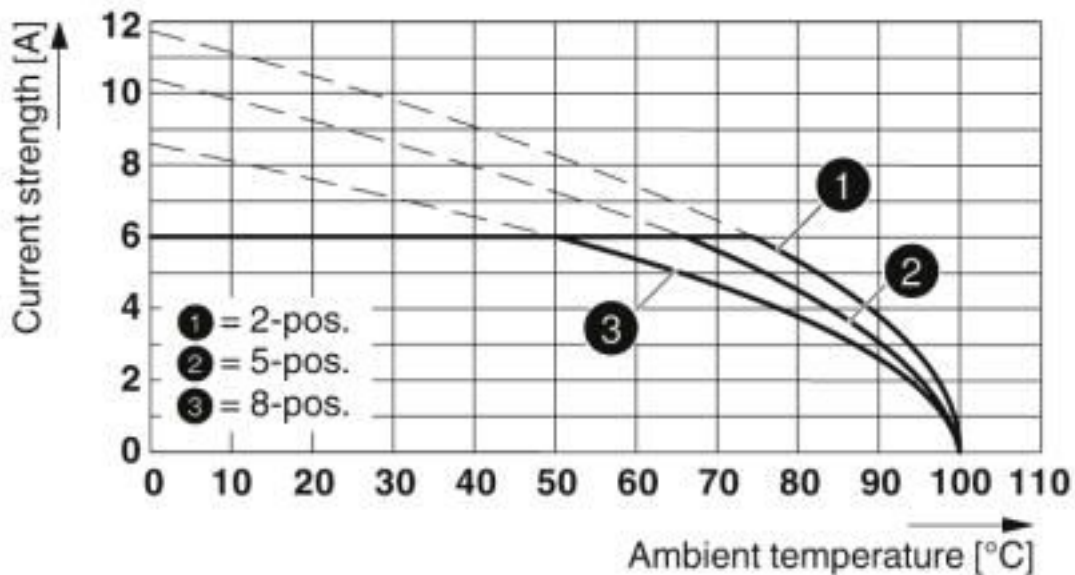
Feed-through header - PTSM 0,5/ 7-HTB-2,5-SMD WH R44 - 1830171

Drilling diagram



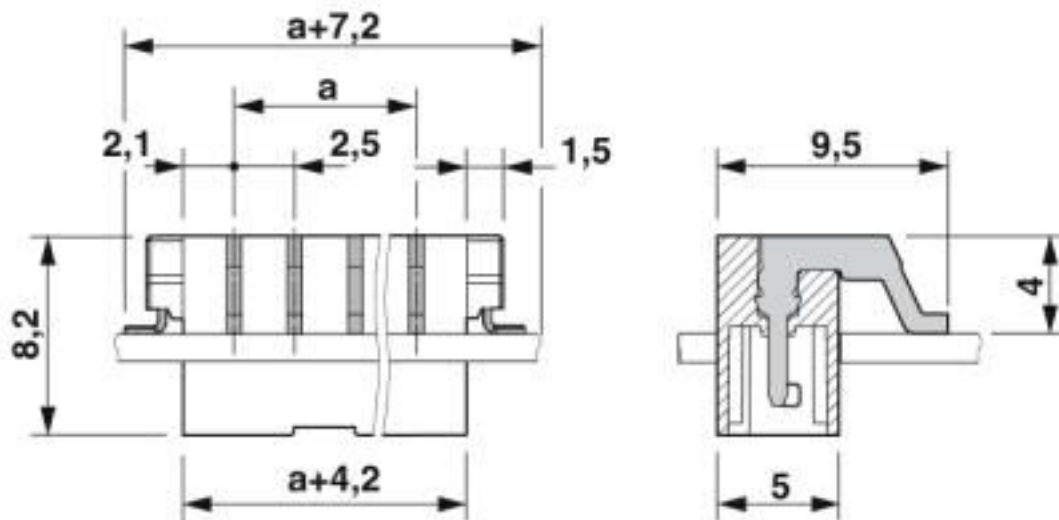
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Diagram



Type: PTSM 0,5/...-P-2,5 WH with PTSM 0,5/...-HTB-2,5-SMD WH R...

Dimensional drawing



Classifications

eCl@ss

eCl@ss 10.0.1	27440402
eCl@ss 4.0	27260700
eCl@ss 4.1	27260700
eCl@ss 5.0	27260700
eCl@ss 5.1	27260700

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Classifications

eCl@ss

eCl@ss 6.0	27260700
eCl@ss 7.0	27440402
eCl@ss 8.0	27440402
eCl@ss 9.0	27440402

ETIM

ETIM 4.0	EC002637
ETIM 5.0	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
UNSPSC 13.2	39121409
UNSPSC 18.0	39121409
UNSPSC 19.0	39121409
UNSPSC 20.0	39121409
UNSPSC 21.0	39121409

Approvals


Approvals

Approvals

UL Recognized / VDE Zeichengenehmigung / EAC / cULus Recognized

Ex Approvals

Approval details

UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm E118976-20130619
		B
Nominal voltage UN		150 V
Nominal current IN		5 A

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Approvals

VDE Zeichengenehmigung		http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx	40048497
Nominal voltage UN	160 V		
Nominal current IN	6 A		
mm ² /AWG/kcmil	0.14-.5		

EAC		B.01687
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cULus Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	E60425-20110108
Nominal voltage UN	150 V		
Nominal current IN	6 A		

Accessories

Additional products

Sample set - SAMPLE PTSM 0,5/ 7-HTB...SMDWH - 1847180



PCB headers, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm², number of positions: 7, pitch: 2.5 mm, color: white, contact surface: Tin, mounting: SMD soldering, pin layout: Linear pad geometry

Printed-circuit board connector - PTSM 0,5/ 7-P-2,5 WH - 1704860



PCB connector, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm², number of positions: 7, pitch: 2.5 mm, connection method: Push-in spring connection, color: white, contact surface: Tin

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Accessories

Feed-through header - PTSM 0,5/ 7-HHI-2,5-SMD WHR44 - 1707999



PCB headers, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm², number of positions: 7, pitch: 2.5 mm, color: white, contact surface: Tin, mounting: SMD soldering, pin layout: Linear pad geometry, solder pin [P]: 2 mm, Article with anti-rotation pin

Feed-through header - PTSM 0,5/ 7-HHI0-2,5-SMD WHR44 - 1815248



PCB headers, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm², number of positions: 7, pitch: 2.5 mm, color: white, contact surface: Tin, mounting: SMD soldering, pin layout: Linear pad geometry

Feed-through header - PTSM 0,5/ 7-HHI-2,5-THR WH R32 - 1815031



PCB headers, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm², number of positions: 7, pitch: 2.5 mm, color: white, contact surface: Tin, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.1 mm

Printed-circuit board connector - PTSM 0,5/ 7-PL-2,5 WH - 1709464



PCB connector, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm², number of positions: 7, pitch: 2.5 mm, connection method: Push-in spring connection, color: white, contact surface: Tin

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