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▶ Extract from the online catalog

Header, nominal current: 8 A, rated voltage: 160 V,
pitch: 3.81 mm, no. of positions: 7, mounting:
SMD/THT



The figure shows a 10-position version of the product

Order No.	1908813
Ord designation	MC 1,5/ 7-G-3,81 THT
EAN	4017918189303
Pack	50 Pcs.
Customs tariff	85366990
Weight/Piece	0.003502 KG
Catalog page information	Page 138 (CC-2007)

▶ Product notes

WEEE/RoHS-compliant since: 01/01/2003



IMPORTANT : This date is valid for Customers in Germany only. Date Format is MM/DD/YYYY. Please contact your local in-country Phoenix Contact location or designated business partner for a Logistics Compliant date in your area. In order to guarantee delivery of RoHS-Compliant product, please purchase Phoenix Contact parts from authorized Phoenix Contact representatives and distributors.

MC 1,5/ 7-G-3,81 THT



▶ **Technical data**

Dimensions / positions

Pitch	3.81 mm
Dimension a	22.86 mm
Number of positions	7
Pin dimensions	0,8 x 0,8 mm
Hole diameter	1.4 mm

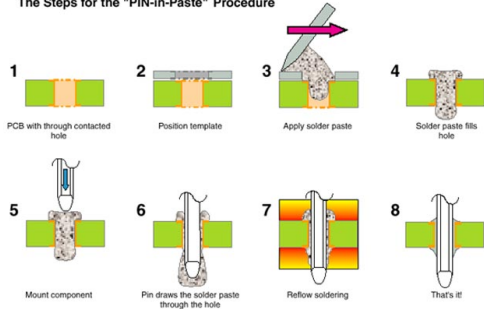
Technical data

Insulating material group	IIIa
Rated surge voltage (III/3)	2.5 kV
Rated surge voltage (III/2)	2.5 kV
Rated surge voltage (II/2)	2.5 kV
Rated voltage (III/2)	160 V
Rated voltage (II/2)	250 V
Connection in acc. with standard	EN-VDE
Nominal current I_N	8 A
Nominal voltage U_N	160 V
Maximum load current	8 A
Insulating material	PA-F
Inflammability class acc. to UL 94	V0

Drawings

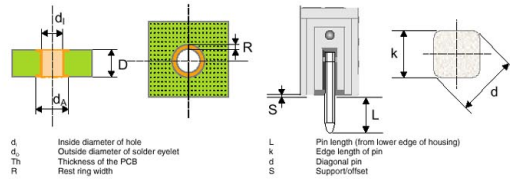
Application drawing

The Steps for the "PIN-in-Paste" Procedure



Tips and Recommendations for Users

Hole and Pad Dimensions/Pin Geometries

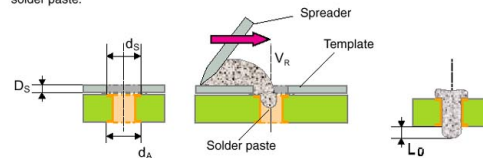


	Actual dimensions	Recommendations
MINI COMBICON	$d = 1,15 \text{ mm}$ $k = 0,8 \text{ mm}$ $S = 0,3 \text{ mm}$	$d_i = 1,3 \text{ mm}^{1)}$ $R = 0,5 \text{ mm}^{2)}$

¹⁾ Hole diameter acc. to DIN IEC 60 352-5 and taking into account the mounting accuracy of automatic mounting machines.
²⁾ The recommended rest ring width of 0.5 mm refers to case II/2 on the PCB (surge voltage category/contamination class) assuming a rated voltage of 160 V (MC 1,5) for the component. When the rest ring width is determined, the requirements for air and creepage distances acc. to the respective equipment standards must be taken into account; smaller rest ring widths or other pad geometries must be used if necessary.

Applying Solder Paste

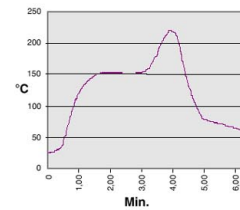
It is assumed that a conventional template print procedure is used when applying the solder paste.



- d_o Outside diameter of solder eyelet
 - d_i Inside diameter of hole -0.1 mm
 - Th Template thickness = recommended thickness of template 150 μm
 - V_s Spreader speed = 30-150 mm/sec. ¹⁾
 - S_s Solder paste overhang = up to 1/2 printed circuit board thickness
- ¹⁾ Speed of spreader and pressure depend on the type of screen printer and the solder paste; e.g. Sn 62 Pb 36 Ag 2 with 20-40 μm grain (VS = approx. 50 mm/sec).

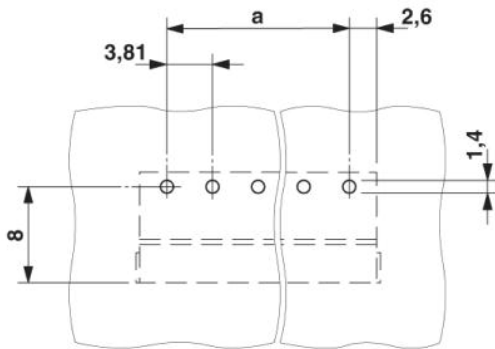
Reference Profile for Reflow-Solder Processes

A temperature profile based on EN 61 760-1 is recommended:

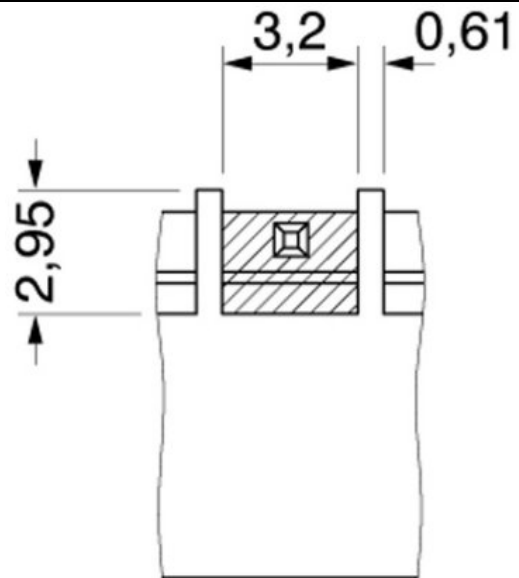
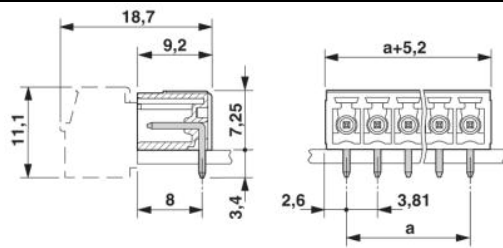


- Parameters/Settings:
- Creating temperature profile: Preferably with forced convection or vapor phase furnace.
 - The use of infra-red radiation should be avoided if possible.
 - Maximum temperature/time ranges: 215 °C for 30 seconds and 230 °C for 15 seconds.
 - Profiles with temperature loads that last considerably longer than 4.5 min. until the peak temperatures are reached should be avoided.
 - The whole profile cycle should take approx. 5 min.
 - Pre-heating to achieve even heating up of the components: 210 to 240 sec.
 - Cooling down phase: min. 4°C/sec.

Drilling diagram



Dimensioned drawing



Bottom view, free space for solder paste, 0.3 mm deep

► Accessories

Item	Designation	Description
General		
1841174	MC 1,5/10-LWL 1,5-3,81	MINI-COMBICON optical fibers, pitch 3.81 mm, 10-position, divisible, are snapped into the back of the MC header, color: transparent, dimension a: 1.5 mm
1841190	MC 1,5/10-LWL 2,3-3,81	MINI-COMBICON optical fibers, pitch 3.81 mm, 10-position, divisible, are snapped into the back of the MC header, color: transparent, dimension a: 2.3 mm
1841213	MC 1,5/10-LWL 4-3,81	MINI-COMBICON optical fibers, pitch 3.81 mm, 10-position, divisible, are snapped into the back of the MC header, color: transparent, dimension a: 4.0 mm
Marking		
0804109	SK 3,81/2,8:FORTL.ZAHLEN	Marker card, printed horizontally, self-adhesive, 10-section marker strip, 14 identical decades marked 1-10, 11-20 etc. up to 91-(99)100, sufficient for 140 terminal blocks
Plug/Adapter		
1734634	CP-MSTB	Coding section, is inserted into the slot on the plug or inverted header, red insulating material

► Additional products

Item	Designation	Description
General		
1851096	FK-MCP 1,5/ 7-ST-3,81	Plug component, nominal current: 8 A, rated voltage: 160 V, pitch: 3.81 mm, no. of positions: 7, type of connection: Spring-cage connection
1850712	FRONT-MC 1,5/ 7-ST-3,81	Plug component, nominal current: 8 A, rated voltage: 160 V, pitch: 3.81 mm, no. of positions: 7, type of connection: Screw connection
1862629	IMC 1,5/ 7-G-3,81	Header, nominal current: 8 A, rated voltage: 160 V, pitch: 3.81 mm, no. of positions: 7, mounting: Soldering
1875470	IMCV 1,5/ 7-G-3,81	Header, nominal current: 8 A, rated voltage: 160 V, pitch: 3.81 mm, no. of positions: 7, mounting: Soldering
1803620	MC 1,5/ 7-ST-3,81	Plug component, nominal current: 8 A, rated voltage: 160 V, pitch: 3.81 mm, no. of positions: 7, type of connection: Screw connection
1852228	MCC 1/ 7-STZ-3,81	Plug component, nominal current: 8 A, rated voltage: 160 V, pitch: 3.81 mm, no. of positions: 7, type of connection: Crimp connection
1827172	MCVR 1,5/ 7-ST-3,81	Plug component, nominal current: 8 A, rated voltage: 160 V, pitch: 3.81 mm, no. of positions: 7, type of connection: Screw connection
1827020	MCVW 1,5/ 7-ST-3,81	Plug component, nominal current: 8 A, rated voltage: 160 V, pitch: 3.81 mm, no. of positions: 7, type of connection: Screw connection
1897445	QC 0,5/ 7-ST-3,81	Plug, nominal current: 6 A, rated voltage: 320 V, pitch: 3.81 mm, number of positions: 7, connection method: Insulation displacement connection QUICKON

► Address

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