

# MCO 1,5/ 8-GL-3,81 - PCB header

1861785

<https://www.phoenixcontact.com/us/products/1861785>

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 documentation. Our general terms of use for downloads are valid.



The figure shows a 10-position version of the product

PCB headers, nominal cross section: 1.5 mm<sup>2</sup>, color: green, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Sn, contact connection type: Pin, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: MCO 1,5/...-GL, pitch: 3.81 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3 mm, number of solder pins per potential: 1, plug-in system: COMBICON MC 1,5, Pin connector pattern alignment: Orthogonal, locking: without, mounting method: without, type of packaging: packed in cardboard

## Your advantages

- Maximum flexibility when it comes to device design – one header for connectors with different connection technologies

## Commercial data

Item number	1861785
Packing unit	50 pc
Minimum order quantity	50 pc
Note	Made to order (non-returnable)
Sales key	AA02
Product key	AABSOA
GTIN	4017918133542
Weight per piece (including packing)	5.51 g
Weight per piece (excluding packing)	4.962 g
Customs tariff number	85366930
Country of origin	PL

# MCO 1,5/ 8-GL-3,81 - PCB header



1861785

<https://www.phoenixcontact.com/us/products/1861785>

## Technical data

### Product properties

Product type	PCB headers
Product family	MCO 1,5/..-GL
Product line	COMBICON Connectors S
Type	Header perpendicular to the PCB
Number of positions	8
Pitch	3.81 mm
Number of connections	8
Number of rows	1
Number of potentials	8
Mounting type	without
Pin layout	Linear pinning
Solder pins per potential	1

### Electrical properties

#### Properties

Nominal current $I_N$	8 A
Nominal voltage $U_N$	160 V
Rated voltage (III/3)	125 V
Rated surge voltage (III/3)	2.5 kV
Rated voltage (III/2)	160 V
Rated surge voltage (III/2)	2.5 kV
Rated voltage (II/2)	200 V
Rated surge voltage (II/2)	2.5 kV

### Mounting

Mounting type	Wave soldering
Pin layout	Linear pinning

### 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 (5 $\mu$ m - 7 $\mu$ m Sn)
Metal surface soldering area (top layer)	Tin (5 $\mu$ m - 7 $\mu$ m Sn)

#### Material data - housing

Color (Housing)	green (6021)
Insulating material	PBT

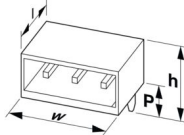
# MCO 1,5/ 8-GL-3,81 - PCB header

1861785

<https://www.phoenixcontact.com/us/products/1861785>

Insulating material group	IIIa
CTI according to IEC 60112	225
Flammability rating according to UL 94	V0

## Dimensions

Dimensional drawing	
Pitch	3.81 mm
Width [w]	31.87 mm
Height [h]	10.25 mm
Length [l]	42.5 mm
Installed height	7.25 mm
Solder pin length [P]	3 mm
Pin dimensions	0.9 x 0.32 mm

## PCB design

Hole diameter	1.2 mm
---------------	--------

## Electrical tests

### Air clearances and creepage distances |

Specification	IEC 60664-1:2007-04
Insulating material group	IIIa
Comparative tracking index (IEC 60112)	CTI 225
Rated insulation voltage (III/3)	125 V
Rated surge voltage (III/3)	2.5 kV
minimum clearance value - non-homogenous field (III/3)	1.5 mm
minimum creepage distance (III/3)	2.4 mm
Rated insulation voltage (III/2)	160 V
Rated surge voltage (III/2)	2.5 kV
minimum clearance value - non-homogenous field (III/2)	1.5 mm
minimum creepage distance (III/2)	1.6 mm
Rated insulation voltage (II/2)	200 V
Rated surge voltage (II/2)	2.5 kV
minimum clearance value - non-homogenous field (II/2)	1.5 mm
minimum creepage distance (II/2)	2 mm

## Environmental and real-life conditions

### Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %

# MCO 1,5/ 8-GL-3,81 - PCB header



1861785

<https://www.phoenixcontact.com/us/products/1861785>

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

## Packaging specifications

Type of packaging	packed in cardboard
-------------------	---------------------

# MCO 1,5/ 8-GL-3,81 - PCB header

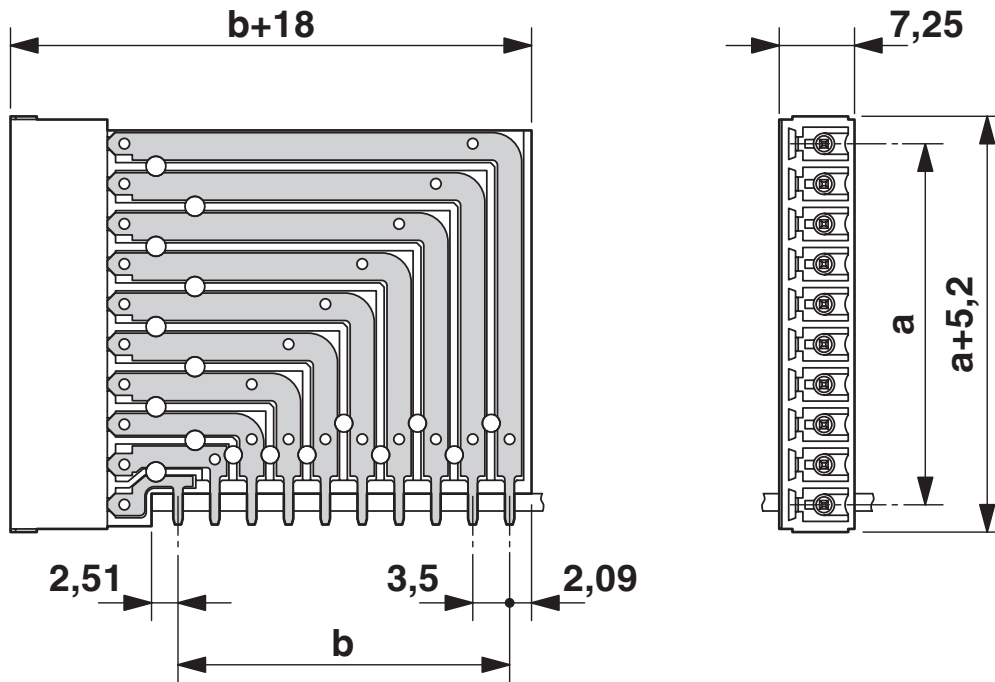


1861785

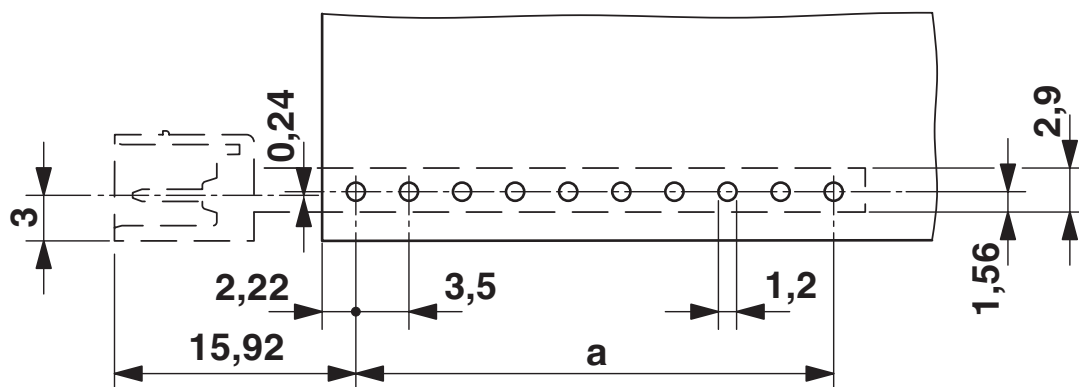
<https://www.phoenixcontact.com/us/products/1861785>

## Drawings

Dimensional drawing



Drilling plan/solder pad geometry



# MCO 1,5/ 8-GL-3,81 - PCB header





1861785


<https://www.phoenixcontact.com/us/products/1861785>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1861785>

 <b>cULus Recognized</b> Approval ID: E60425-20050718				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
B	300 V	8 A	-	-
D	300 V	8 A	-	-

 <b>VDE approval of drawings</b> Approval ID: 40011723	
--	--

 <b>VDE approval of drawings</b> Approval ID: 40011723	
--	--

# MCO 1,5/ 8-GL-3,81 - PCB header



1861785

<https://www.phoenixcontact.com/us/products/1861785>

## Classifications

### ECLASS

ECLASS-13.0	27460201
ECLASS-15.0	27460201

### ETIM

ETIM 10.0	EC002637
-----------	----------

### UNSPSC

UNSPSC 21.0	39121400
-------------	----------

# MCO 1,5/ 8-GL-3,81 - PCB header



1861785

<https://www.phoenixcontact.com/us/products/1861785>

## 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%
-------------------------------------	----------------------------

### EF3.1 Climate Change

CO2e kg	0.076 kg CO2e
---------	---------------

Phoenix Contact 2026 © - all rights reserved  
<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)