

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



1861756

<https://www.phoenixcontact.com/us/products/1861756>

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: 5, number of rows: 1, number of positions: 5, number of connections: 5, 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                          | 1861756       |
| Packing unit                         | 50 pc         |
| Minimum order quantity               | 50 pc         |
| Sales key                            | AA02          |
| Product key                          | AABSOA        |
| GTIN                                 | 4017918133528 |
| Weight per piece (including packing) | 2.753 g       |
| Weight per piece (excluding packing) | 2.733 g       |
| Customs tariff number                | 85366930      |
| Country of origin                    | PL            |

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



1861756

<https://www.phoenixcontact.com/us/products/1861756>

## 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       | 5                               |
| Pitch                     | 3.81 mm                         |
| Number of connections     | 5                               |
| Number of rows            | 1                               |
| Number of potentials      | 5                               |
| 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 terminal point (top layer) | Tin (Sn)   |
| 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) |
|-----------------|--------------|

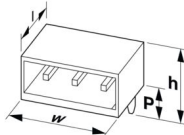
# MCO 1,5/ 5-GL-3,81 - PCB header

1861756

<https://www.phoenixcontact.com/us/products/1861756>

|  |      |
|--|------|
| Insulating material                    | PBT  |
| 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]             | 20.44 mm   |
| Height [h]            | 10.25 mm   |
| Length [l]            | 32 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 |
|---|------------------|

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



1861756

<https://www.phoenixcontact.com/us/products/1861756>

|                                       |   |
|---------------------------------------|---|
| Relative humidity (storage/transport) | 30 % ... 70 %                                       |
| 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/ 5-GL-3,81 - PCB header

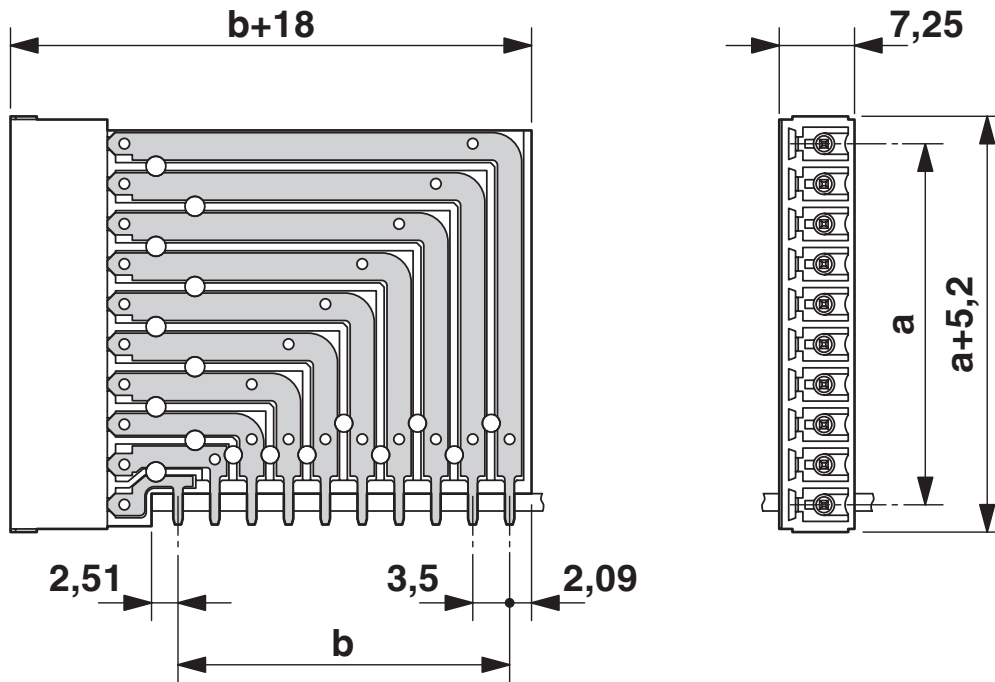


1861756

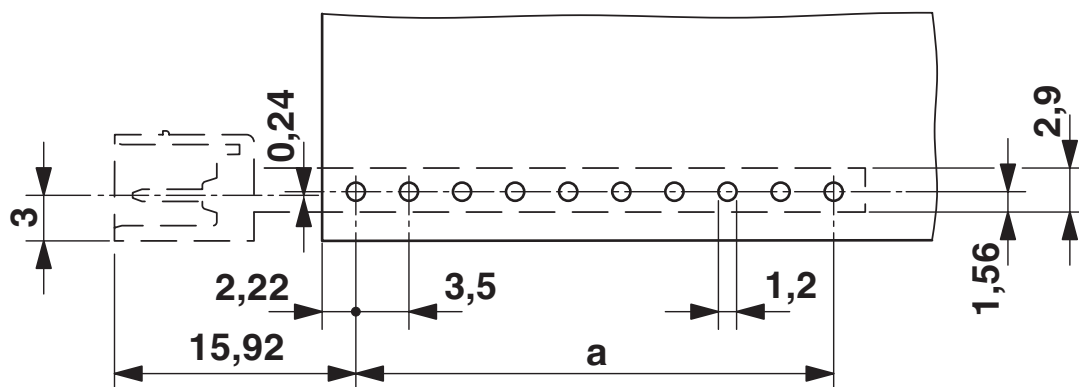
<https://www.phoenixcontact.com/us/products/1861756>

## Drawings

Dimensional drawing



Drilling plan/solder pad geometry



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





1861756


<https://www.phoenixcontact.com/us/products/1861756>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1861756>

|  <b>cULus Recognized</b><br>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><br>Approval ID: 40011723 |  |
|--|--|
|--|--|

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

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



1861756

<https://www.phoenixcontact.com/us/products/1861756>

## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27460201 |
| ECLASS-15.0 | 27460201 |

### ETIM

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

### UNSPSC

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

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



1861756

<https://www.phoenixcontact.com/us/products/1861756>

## 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 | 0.213 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)