

## MHS 5/05 D11 H T3 B T

Weidmüller Interface GmbH &amp; Co. KG

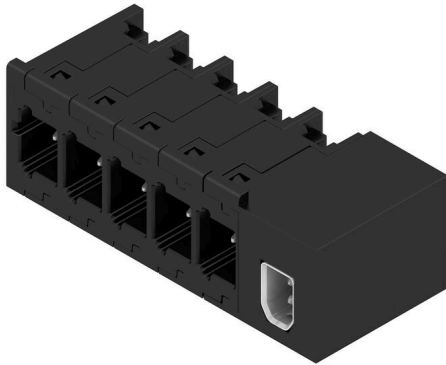
Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

## Product image



OMNIMATE® 4.0 - the next evolution step  
OMNIMATE® 4.0 follows the trend of One Cable Technology (OCT). The modular concept enables the fast configuration of hybrid interfaces, which transmit data, signals and energy in a single connector. As a result, you can reduce the cabling effort in a wide variety of applications, simplify maintenance and accelerate automation processes. The unique SNAP IN connection is the backbone and speeds up the wiring process.

The fastest connection yet

- Fast, safe, and tool-free wiring due to unique SNAP IN connection
- Ready for Robot through "wire ready" delivery with open clamping point
- Optical and acoustic feedback indicates proper wiring

Create your own configuration

- Flexible configuration and ordering via the Weidmüller Configurator (WMC)
- Dispatch within three days – even for individually configured products
- Automatic offer preparation for the configured product

Simply configuration of modular hybrid connectors

- Flexible combination options for power, signal and data transmission
- Future-proof Single-Pair Ethernet technology

## General ordering data

|              |  |
|--------------|--|
| Version      | PCB plug-in connector, male header, THT/THR solder connection, Pitch in mm (P): 5.00 mm, Number of poles: 5, 90°, Tube |
| Order No.    | <a href="#">2741540000</a>   |
| Type         | MHS 5/05 D11 H T3 B T  |
| GTIN (EAN)   | 4064675055518  |
| Qty.         | 15 items   |
| Product data | IEC: 400 V / 26.8 A<br>UL: 300 V / 18.5 A  |
| Packaging    | Tube   |

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## Technical data

## Approvals

|      |         |
|------|---------|
| ROHS | Conform |
|------|---------|

## Dimensions and weights

|                          |             |                 |             |
|--------------------------|-------------|-----------------|-------------|
| Depth                    | 14.8 mm     | Depth (inches)  | 0.5827 inch |
| Height                   | 15.1 mm     | Height (inches) | 0.5945 inch |
| Height of lowest version | 11.9 mm     | Width           | 34.7 mm     |
| Width (inches)           | 1.3661 inch | Net weight      | 11.13 g     |

## Temperatures

|                     |                 |
|---------------------|-----------------|
| Ambient temperature | -50 °C...125 °C |
|---------------------|-----------------|

## Environmental Product Compliance

|                        |                             |
|------------------------|-----------------------------|
| RoHS Compliance Status | Compliant without exemption |
| REACH SVHC             | No SVHC above 0.1 wt%       |

## System specifications

|  |  |  |                  |
|--|--|--|------------------|
| Product family                               | OMNIMATE 4.0                               | Type of connection                         | Board connection |
| Mounting onto the PCB                        | THT/THR solder connection                  | Pitch in mm (P)                            | 5.00 mm          |
| Pitch in inches (P)                          | 0.197 "                                    | Outgoing elbow                             | 90°              |
| Number of poles                              | 5  | Number of solder pins per pole             | 1                |
| Solder pin length (l)                        | 3.2 mm                                     | Solder pin dimensions                      | 1.0 x 1.0 mm     |
| Solder eyelet hole diameter (D)              | 1.4 mm                                     | Solder eyelet hole diameter tolerance (D)+ | 0,1 mm           |
| Outside diameter of solder pad               | 2.3 mm                                     | Template aperture diameter                 | 2.1 mm           |
| L1 in mm                                     | 20.00 mm                                   | L1 in inches                               | 0.787 "          |
| Number of rows                               | 1  | Pin series quantity                        | 1                |
| Touch-safe protection acc. to DIN VDE 57 106 | Touch-safe above the printed circuit board | Touch-safe protection acc. to DIN VDE 0470 | IP 20            |
| Protection degree                            | IP20                                       | Volume resistance                          | ≤5 mΩ            |
| Plugging force/pole, max.                    | 8.5 N                                      | Pulling force/pole, max.                   | 8.5 N            |

## Material data

|                                  |          |                             |        |
|----------------------------------|----------|-----------------------------|--------|
| Insulating material              | PA 9T    | Colour                      | black  |
| Colour chart (similar)           | RAL 9011 | Insulating material group   | I      |
| Comparative Tracking Index (CTI) | ≥ 600    | Moisture Level (MSL)        | 1      |
| UL 94 flammability rating        | V-0      | Contact base material       | CuMg   |
| Contact material                 | Cu-alloy | Contact surface             | tinned |
| Tinning type                     | mat      | Storage temperature, min.   | -25 °C |
| Storage temperature, max.        | 55 °C    | Operating temperature, min. | -40 °C |
| Operating temperature, max.      | 85 °C    |                             |        |

## Rated data acc. to IEC

|  |                        |  |        |
|--|------------------------|--|--------|
| tested acc. to standard  | IEC 60664-1, IEC 61984 | Rated current, min. number of poles (Tu=20°C)                  | 26.8 A |
| Rated current, max. number of poles (Tu=20°C)                  | 19.7 A                 | Rated current, min. number of poles (Tu=40°C)                  | 23.1 A |
| Rated current, max. number of poles (Tu=40°C)                  | 16.9 A                 | Rated voltage for surge voltage class / pollution degree II/2  | 400 V  |
| Rated voltage for surge voltage class / pollution degree III/2 | 320 V                  | Rated voltage for surge voltage class / pollution degree III/3 | 250 V  |

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|   |      |
|---|------|
| Rated impulse voltage for surge voltage class/ pollution degree II/2      | 4 kV |
| Rated impulse voltage for surge voltage class/ contamination degree III/3 | 4 kV |
| Clearance, min.   | 4 mm |

|   |        |
|---|--------|
| Rated impulse voltage for surge voltage class/ pollution degree III/2 | 4 kV   |
| Creepage distance, min.   | 5.4 mm |

#### Rated data acc. to UL 1059

|                                       |       |
|---------------------------------------|-------|
| Rated voltage (Use group B / UL 1059) | 300 V |
| Rated voltage (Use group F / UL 1059) | 420 V |
| Rated current (Use group D / UL 1059) | 10 A  |
| Clearance distance, min.              | 4 mm  |

|                                       |        |
|---------------------------------------|--------|
| Rated voltage (Use group D / UL 1059) | 300 V  |
| Rated current (Use group B / UL 1059) | 18.5 A |
| Creepage distance, min.               | 5.6 mm |

#### Technical data - hybrid (data)

|  |                                |
|--|--------------------------------|
| Number of poles (Data)                       | 2                              |
| Contact material (Data)                      | Cu                             |
| Rated current (Data)                         | 2 A                            |
| Solder pin length (l) (Data)                 | 2.1 mm                         |
| Tolerance of solder pin position (Data)      | 0.1 mm                         |
| Dielectric strength, contact / shield (Data) | ≥ 1500 V DC                    |
| PoE / PoE+ (Data)                            | PoDL acc. to IEEE 802.3bu / cg |
| Shielding (Data)                             | Yes                            |

|   |                            |
|---|----------------------------|
| Connector Standard (Data)                     | IEC 63171-2                |
| Contact surface (Data)                        | Ni/Au                      |
| Rated voltage (Data)                          | 72 V                       |
| Solder pin dimensions (Data)                  | Octagonal                  |
| Dielectric strength, contact / contact (Data) | ≥ 1000 V DC                |
| Insulation strength (Data)                    | ≥ 500 MΩ                   |
| Transmission rate (Data)                      | 10/100 MBit/s, 1000 MBit/s |

#### Technical data - hybrid (power)

|                         |   |
|-------------------------|---|
| Number of rows (Signal) | 1 |
|-------------------------|---|

#### Technical data - hybrid (signal)

|  |              |
|--|--------------|
| Number of poles (Signal)   | 5            |
| Contact material (Signal)  | CuMg         |
| Rated current (Use group B / UL 1059) (Signal)                                 | 18.5 A       |
| Rated current, min. number of poles (Tu=20°C) (Signal)                         | 26.8 A       |
| Rated current, min. number of poles (Tu=40°C) (Signal)                         | 23.1 A       |
| Rated voltage (Use group B / UL 1059) (Signal)                                 | 300 V        |
| Rated voltage for surge voltage class / pollution degree II/2 (Signal)         | 400 V        |
| Rated voltage for surge voltage class / pollution degree III/3 (Signal)        | 250 V        |
| Rated impulse voltage for surge voltage class/ pollution degree III/2 (Signal) | 4 kV         |
| Volume resistance (Signal)   | ≤5 mΩ        |
| Clearance distance, min. (Signal)  | 4 mm         |
| Solder pin dimensions (Signal)   | 1.0 x 1.0 mm |
| Diameter of solder eyelet (Signal)   | 1.4 mm       |
| Template aperture diameter (Signal)  | 2.1 mm       |

|  |          |
|--|----------|
| Number of solder pins per pole (Signal)  | 1        |
| Contact surface (Signal)   | tinned   |
| Rated current (Use group D / UL 1059) (Signal)                                 | 10 A     |
| Rated current, max. number of poles (Tu=20°C) (Signal)                         | 19.7 A   |
| Rated current, max. number of poles (Tu=40°C) (Signal)                         | 16.9 A   |
| Rated voltage (Use group D / UL 1059) (Signal)                                 | 300 V    |
| Rated voltage for surge voltage class / pollution degree III/2 (Signal)        | 320 V    |
| Rated impulse voltage for surge voltage class/ pollution degree II/2 (Signal)  | 4 kV     |
| Rated impulse voltage for surge voltage class/ pollution degree III/3 (Signal) | 4 kV     |
| Creepage distance, min. (Signal)   | 5.4 mm   |
| Solder pin length (Signal)   | 3.2 mm   |
| Tolerance of the diameter of the solder eyelet (Signal)                        | + 0,1 mm |
| Outside diameter of solder pad (Signal)  | 2.3 mm   |

#### Important note

IPC conformity

Conformity: The products are developed, manufactured and delivered according international recognized standards and norms and comply with the assured properties in the data sheet resp.

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fulfill decorative properties in accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request.

### Notes

- Rated current related to rated cross-section & min. No. of poles.
- P on drawing = pitch
- Rated data refer only to the component itself. Clearance and creepage distances to other components are to be designed in accordance with the relevant application standards.
- Diameter of solder eyelet D = 1.4+0.1mm
- In accordance with IEC 61984, OMNIMATE-connectors are connectors without breaking capacity (COC). During designated use, connectors are not allowed to be engaged or disengaged when live or under load
- Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months

### Classifications

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 8.0    | EC002637    | ETIM 9.0    | EC002637    |
| ETIM 10.0   | EC002637    | ECLASS 14.0 | 27-46-02-01 |
| ECLASS 15.0 | 27-46-02-01 |             |             |

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Drawings

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