

MHS 5/05 D11 H T3 B T

Weidmüller Interface GmbH & Co. KG

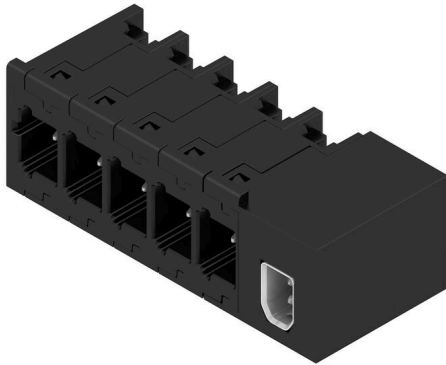
Klingenbergstraße 26

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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. | 2741540000 |
| Type | MHS 5/05 D11 H T3 B T |
| GTIN (EAN) | 4064675055518 |
| Qty. | 15 items |
| Product data | IEC: 400 V / 26.8 A 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 $D = 1.4 + 0.1 \text{ mm}$
- 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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