

MPS 5/06 D11 S TN B B

Weidmüller Interface GmbH & Co. KG

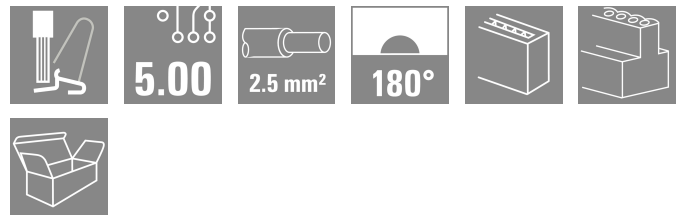
Klingenbergstraße 26

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, female plug, Pitch in mm (P): 5.00 mm, Number of poles: 6, 180°, Box |
| Order No. | 2741810000 |
| Type | MPS 5/06 D11 S TN B B |
| GTIN (EAN) | 4064675055334 |
| Qty. | 42 items |
| Product data | IEC: 400 V / 26.8 A / 0.5 - 4 mm ² UL: 300 V / 18.5 A / AWG 18 - AWG 14 |
| Packaging | Box |

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 D-32758 Detmold
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Technical data

Approvals

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

Dimensions and weights

| | | | |
|------------|---------|-----------------|-------------|
| Depth | 36 mm | Depth (inches) | 1.4173 inch |
| Height | 15.5 mm | Height (inches) | 0.6102 inch |
| Width | 40.2 mm | Width (inches) | 1.5827 inch |
| Net weight | 33.03 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 Parameters

| | |
|--|-------------------------|
| Product family | OMNIMATE 4.0 |
| Type of connection | Field connection |
| Wire connection method | SNAP IN with lever |
| Pitch in mm (P) | 5.00 mm |
| Pitch in inches (P) | 0.197 " |
| Conductor outlet direction | 180° |
| Number of poles | 6 |
| L1 in mm | 25.00 mm |
| L1 in inches | 0.984 " |
| Number of rows | 1 |
| Pin series quantity | 1 |
| Touch-safe protection acc. to DIN VDE 57 106 | Safe from finger touch |
| Touch-safe protection acc. to DIN VDE 0470 | IP 20 |
| Protection degree | IP20 |
| Volume resistance | ≤5 mΩ |
| Stripping length | 9 mm |
| Stripping length tolerance | min. 8 mm max. 10 mm |
| Plugging cycles | 25 |
| Plugging force/pole, max. | 8.5 N |
| Pulling force/pole, max. | 8.5 N |

Material data

| | | | |
|--------------------------------|----------|----------------------------------|----------|
| Insulating material | PBT GF | Colour | black |
| Colour of operational elements | orange | Colour chart (similar) | RAL 9011 |
| Insulating material group | I | Comparative Tracking Index (CTI) | ≥ 600 |
| Moisture Level (MSL) | | UL 94 flammability rating | V-0 |
| Contact material | Cu-alloy | Contact surface | tinned |
| Storage temperature, min. | -25 °C | Storage temperature, max. | 55 °C |
| Operating temperature, min. | -40 °C | Operating temperature, max. | 85 °C |

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Technical data

Conductors suitable for connection

| | |
|---|----------------------|
| Clamping range, min. | 0.34 mm ² |
| Clamping range, max. | 4 mm ² |
| Solid, min. H05(07) V-U | 0.5 mm ² |
| Solid, max. H05(07) V-U | 2.5 mm ² |
| Flexible, min. H05(07) V-K | 0.5 mm ² |
| Flexible, max. H05(07) V-K | 4 mm ² |
| w. plastic collar ferrule, DIN 46228 pt 4, min. | 0.34 mm ² |
| w. plastic collar ferrule, DIN 46228 pt 4, max. | 2.5 mm ² |
| w. wire end ferrule, DIN 46228 pt 1, min. | 0.34 mm ² |
| w. wire end ferrule, DIN 46228 pt 1, max. | 2.5 mm ² |
| Outer diameter of insulation, max. | 4.00 mm |

| Clampable conductor | Cross-section for conductor connection | | |
|---------------------|--|------------------------------|-----------------------------|
| | wire end ferrule | nominal | 0.34 mm ² |
| | wire end ferrule | Stripping length | nominal 10 mm |
| | | Recommended wire-end ferrule | H0.34/12 TK |
| | | Stripping length | nominal 12 mm |
| | | Recommended wire-end ferrule | H0.5/16 OR |
| | wire end ferrule | Stripping length | nominal 10 mm |
| | | Recommended wire-end ferrule | H0.5/10 |
| | | Stripping length | nominal 12 mm |
| | | Recommended wire-end ferrule | H0.75/16 W |
| | wire end ferrule | Stripping length | nominal 10 mm |
| | | Recommended wire-end ferrule | H0.75/10 |
| | | Stripping length | nominal 12 mm |
| | | Recommended wire-end ferrule | H1.0/16 GE |
| | wire end ferrule | Stripping length | nominal 10 mm |
| | | Recommended wire-end ferrule | H1.0/10 |
| | | Stripping length | nominal 12 mm |
| | | Recommended wire-end ferrule | H1.5/16 R |
| | wire end ferrule | Stripping length | nominal 10 mm |
| | | Recommended wire-end ferrule | H1.5/10 |
| | | Stripping length | nominal 12 mm |
| | | Recommended wire-end ferrule | H2.5/15D BL |
| | wire end ferrule | Stripping length | nominal 10 mm |
| | | Recommended wire-end ferrule | H2.5/10 |

Reference text The outside diameter of the plastic collar should not be larger than the pitch (P). Length of ferrules is to be chosen depending on the product and the rated voltage.

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Technical data

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 |
| Rated impulse voltage for surge voltage class/ pollution degree II/2 | 4 kV | Rated impulse voltage for surge voltage class/ pollution degree III/2 | 4 kV |
| Rated impulse voltage for surge voltage class/ contamination degree III/3 | 4 kV | | |

Rated data acc. to UL 1059

| | | | |
|---------------------------------------|--------|---------------------------------------|--------|
| Rated voltage (Use group B / UL 1059) | 300 V | Rated voltage (Use group D / UL 1059) | 300 V |
| Rated current (Use group B / UL 1059) | 18.5 A | Rated current (Use group D / UL 1059) | 10 A |
| Wire cross-section, AWG, min. | AWG 18 | Wire cross-section, AWG, max. | AWG 14 |

Technical data - hybrid (data)

| | | | |
|--|--|---|--|
| Connection technology (Data) | Insulation displacement connection (IDC) | Connector Standard (Data) | IEC 63171-2 |
| Contact material (Data) | Bronze tin-plated | Housing main material (Data) | zinc diecast nickel-plated |
| Material locking lever (Data) | Stainless steel | Shielding material (Data) | bronze tin-plated |
| Material insulator (Data) | PC UL94 V0 | Sheath diameter, min. (Data) | 3.6 mm |
| Sheath diameter, max. (Data) | 5.7 mm | Insulation cross-section, min. (Data) | 0.85 |
| Insulation cross-section, max. (Data) | 1.6 | Dielectric strength, contact / contact (Data) | ≥ 1000 V DC |
| Dielectric strength, contact / shield (Data) | ≤ 1500 V DC | Current-carrying capacity (Data) | 1.4 A |
| Contact resistance (Data) | ≤ 20 mΩ | Insulation strength (Data) | ≥ 500 MΩ |
| Network standard (Data) | IEEE 802.3bw (100 BaseT1), IEEE 802.3cg (10BaseT1), IEEE 802.3bp (1000 BaseT1) | PoE / PoE+ (Data) | PoDL acc. to IEEE 802.3bu / cg |
| Application-specific communication cable facilities (Data) | ISO/IEC 11801-1 Amd.1, ISO/IEC 11801-3 Amd.1, ISO/IEC 11801-6 Amd.1 | Ability to reconnect (Data) | ≤ 4 cycles (with the same cross-section) |

Technical data - hybrid (signal)

| | | | |
|--|---------------------|--|---------------------|
| Number of poles (Signal) | 6 | Pitch in mm (Signal) | 5 mm |
| Pitch in inches (Signal) | 0.197 " | Contact material (Signal) | CuSn |
| Contact surface (Signal) | tinned | Clamping range, min. (Signal) | 0.5 mm ² |
| Clamping range, max. (Signal) | 4 mm ² | Wire cross-section, AWG, min. (Signal) | AWG 20 |
| Wire cross-section, AWG, max. (Signal) | AWG 12 | w. plastic collar ferrule, DIN 46228 pt 4, 0.5 mm ² min. (Signal) | |
| w. plastic collar ferrule, DIN 46228 pt 4, 2.5 mm ² max. (Signal) | | w. wire end ferrule, DIN 46228 pt 1, 0.5 mm ² min. (Signal) | |
| w. wire end ferrule, DIN 46228 pt 1, 2.5 mm ² max. (Signal) | | Flexible, min. H05(07) V-K (Signal) | 0.5 mm ² |
| Flexible, max. H05(07) V-K (Signal) | 4 mm ² | Solid, min. H05(07) V-U (Signal) | 0.5 mm ² |
| Solid, max. H05(07) V-U (Signal) | 2.5 mm ² | Outside diameter of the insulation, max. (Signal) | 4 mm |
| Stripping length (Signal) | 9 mm | Rated current (Use group B / UL 1059) (Signal) | 18.5 A |

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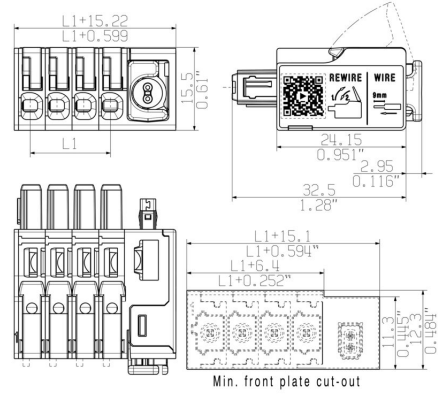
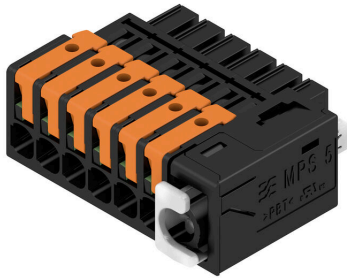
| | | | |
|--|--------|--|--------|
| Rated current (Use group C / UL 1059) (Signal) | 18.5 A | Rated current (Use group D / UL 1059) (Signal) | 10 A |
| Rated current, min. number of poles (Tu=20°C) (Signal) | 26.8 A | Rated current, max. number of poles (Tu=20°C) (Signal) | 19.7 A |
| Rated current, min. number of poles (Tu=40°C) (Signal) | 23.1 A | Rated current, max. number of poles (Tu=40°C) (Signal) | 16.9 A |
| Rated impulse voltage for surge voltage class/ pollution degree II/2 (Signal) | 4 kV | Rated impulse voltage for surge voltage class/ pollution degree III/2 (Signal) | 4 kV |
| Rated impulse voltage for surge voltage class/ pollution degree III/3 (Signal) | 4 kV | Rated voltage (Use group B / UL 1059) (Signal) | 300 V |
| Rated voltage (Use group C / UL 1059) (Signal) | 150 V | Rated voltage (Use group D / 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/2 (Signal) | 320 V |
| Rated voltage for surge voltage class / pollution degree III/3 (Signal) | 250 V | Clearance distance, min. (Signal) | 7.5 mm |
| Creepage distance, min. (Signal) | 7.5 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. fulfill decorative properties in accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request. |
| Notes | <ul style="list-style-type: none"> 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. Wire end ferrule without plastic collar to DIN 46228/1 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 | EC002638 | ETIM 9.0 | EC002638 |
| ETIM 10.0 | EC002638 | ECLASS 14.0 | 27-46-02-02 |
| ECLASS 15.0 | 27-46-02-02 | | |



Product benefits

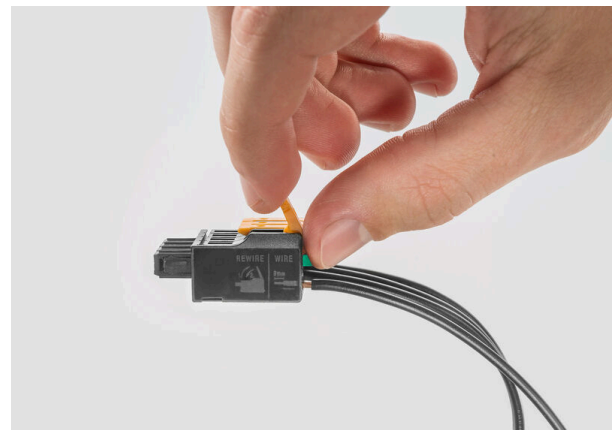


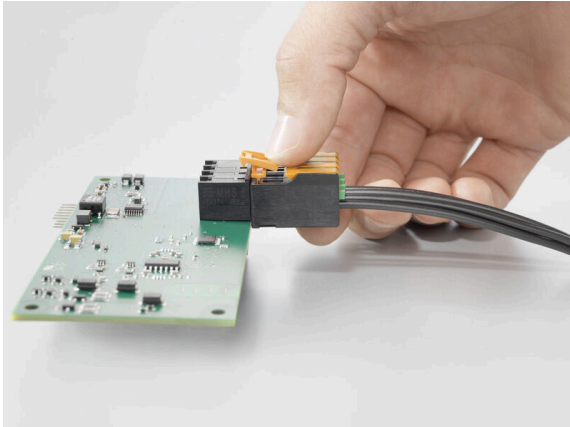
Fastest connection technology SNAP IN

Product benefits



Acoustic and visual feedback





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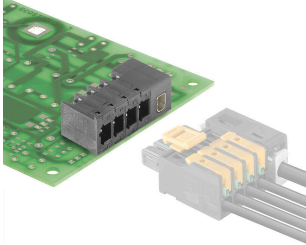
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Counterpart

Board connection



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 - 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

| | | | |
|------------|----------------------------|--|--|
| Type | MHS 5/06 D11 H T3 B T | Version | |
| Order No. | 2741550000 | PCB plug-in connector, male header, THT/THR solder connection, | |
| GTIN (EAN) | 4064675055525 | Pitch in mm (P): 5.00 mm, Number of poles: 6, 90°, Tube | |
| Qty. | 13 ST | | |