

**USB2.0A T1V 2.5N4 TY BK****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)

USB as a reliable data interface for your device in industrial use. Due to the many advantages, USB sockets are always used most in the electrical industry.

The extensive portfolio of USB-A, -B - C and -Micro components enables future-proof device design with speeds of up to 10 Gbit/s. Our USB PCB sockets support the robust standards USB 2.0, 3.0 and 3.1 for fast and easy data transfer.

The individual connectors meet the requirements for high durability and offer reliable connectivity.

- Up to 10.000 plugging cycles
- THT, THR or SMD soldering processes
- Available in design types 180° (vertical/upright) or 90° (horizontal/flat-lying)
- Packed either in a tray (TY) or on a roll (tape-on-reel, RL)
- Reinforced gold layer for improved corrosion protection
- USB 3.1 sockets support data rates of 10 Gbit/s for fast data transfer
- USB-C sockets enable error-free plugging due to a symmetrical design
- Robust plug & play operation - connect and disconnect without shutting down or restarting the system

**General ordering data**

|            |  |
|------------|--|
| Version    | OMNIMATE Data - USB jack, USB jacks, Type A, 480 Mbps, THT solder connection, 180°, ≥ 1500, Pitch in mm (P): 2.00 mm, Number of poles: 4, PBT, black, Tray (manual assembly) |
| Order No.  | <a href="#">1985910000</a>   |
| Type       | USB2.0A T1V 2.5N4 TY BK  |
| GTIN (EAN) | 4050118370843  |
| Qty.       | 100 pc(s).   |
| Packaging  | Tray (manual assembly)   |

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## Technical data

## Dimensions and weights

|                          |            |                 |            |
|--------------------------|------------|-----------------|------------|
| Depth                    | 7.12 mm    | Depth (inches)  | 0.28 inch  |
| Height                   | 19.6 mm    | Height (inches) | 0.772 inch |
| Height of lowest version | 15.3 mm    | Width           | 14.5 mm    |
| Width (inches)           | 0.571 inch | Net weight      | 2.84 g     |

## System specifications

|                                  |                  |                                |                                  |
|----------------------------------|------------------|--------------------------------|----------------------------------|
| LED                              | No               | Mounting onto the PCB          | THT solder connection            |
| Number of poles                  | 4                | Number of solder pins per pole | 1                                |
| Outgoing elbow                   | 180°             | Performance-Category           | 480 Mbps                         |
| Pitch in inches (P)              | 0.079 "          | Pitch in mm (P)                | 2 mm                             |
| Plugging cycles                  | ≥ 1500           | Product family                 | OMNIMATE Data - USB jack         |
| Protection degree                | IP20             | Shield surface                 | nickel-plated                    |
| Shield tabs                      | none             | Shielding                      | Yes                              |
| Shielding material               | Brass            | Solder pin dimensions          | Octagonal                        |
| Solder pin length (l)            | 2.9 mm           | Soldering process              | Manual soldering, Wave soldering |
| Tolerance of solder pin position | ± 0.1 mm         | Transmission rate              | 480 Mbps                         |
| Type of connection               | Socket connector |                                |                                  |

## Electrical properties

|  |          |                     |           |
|--|----------|---------------------|-----------|
| Dielectric strength, contact / contact | 500 V AC | Insulation strength | ≥ 1000 MΩ |
| Rated current                          | 1.5 A    | Rated voltage       | 30 V      |

## Material data

|                                  |                            |                             |                   |
|----------------------------------|----------------------------|-----------------------------|-------------------|
| Insulating material              | PBT                        | Colour                      | black             |
| Colour chart (similar)           | RAL 9011                   | Insulating material group   | II                |
| Comparative Tracking Index (CTI) | ≥ 500                      | Insulation strength         | ≥ 1000 MΩ         |
| UL 94 flammability rating        | V-0                        | Contact base material       | Phosphorus bronze |
| Contact material                 | Cu-alloy                   | Contact surface             | Gold over nickel  |
| Layer structure of plug contact  | 30...80 μ" Ni / ≥ 30 μ" Au | Storage temperature, min.   | -40 °C            |
| Storage temperature, max.        | 60 °C                      | Operating temperature, min. | -40 °C            |
| Operating temperature, max.      | 60 °C                      |                             |                   |

## Packing

|           |                        |            |        |
|-----------|------------------------|------------|--------|
| Packaging | Tray (manual assembly) | VPE length | 267 mm |
| VPE width | 239 mm                 | VPE height | 11 mm  |

## Classifications

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC002637    | ETIM 7.0    | EC002637    |
| ETIM 8.0    | EC002637    | ETIM 9.0    | EC002637    |
| ECLASS 9.0  | 27-44-04-02 | ECLASS 9.1  | 27-44-04-02 |
| ECLASS 10.0 | 27-44-04-02 | ECLASS 11.0 | 27-46-02-01 |
| ECLASS 12.0 | 27-46-02-01 | ECLASS 13.0 | 27-46-02-01 |

## Environmental Product Compliance

|                        |           |
|------------------------|-----------|
| REACH SVHC             | /         |
| RoHS Compliance Status | Compliant |

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# Technical data

## Approvals

ROHS

Conform

## Downloads

Engineering Data

[CAD data – STEP](#)

Catalogues

[Catalogues in PDF-format](#)

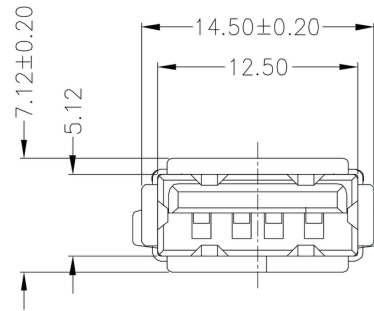
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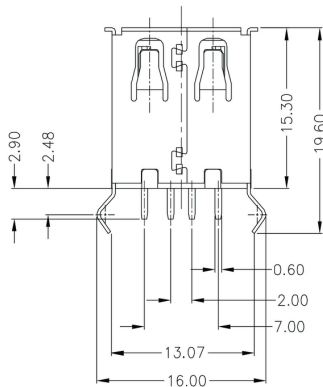
[www.weidmueller.com](http://www.weidmueller.com)

# Drawings

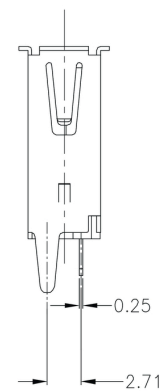
## Dimensioned drawing



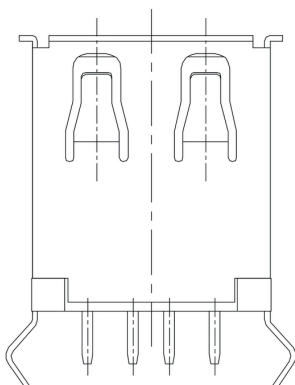
## Dimensioned drawing



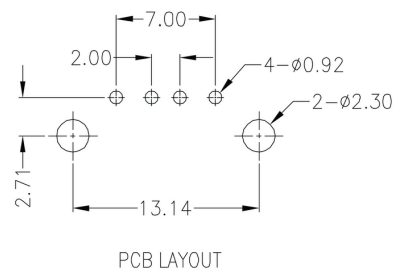
## Dimensioned drawing



## Dimensioned drawing



## PCB design



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## Recommended wave soldering profiles

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### Single Wave:



### Double Wave:



### Wave soldering profiles

Wired connection elements should be processed in accordance with the DIN EN 61760-1 standard. We have included two recommendations for practical wave soldering profiles, with which Weidmüller PCB terminals and connectors are qualified.

When choosing a suitable profile for your application, the following factors also need to be considered:

- PCB thickness
- Proportion of Cu in the layers
- Single/double-sided assembly
- Product range
- Heating and cooling rates

The single and double wave profiles each indicate the recommended operating range, including the maximum soldering temperature of 260°C. In practice, the maximum soldering temperature is quite often well below the above maximum profile.

We reserve the right to make technical changes.