

## USB2.0A S1H 1.4N4 TY BK

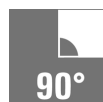
Weidmüller Interface GmbH &amp; Co. KG

Klingenbergstraße 26

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Germany

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産業用デバイスの信頼性の高い USB データインターフェース。多くの利点から、電気業界では USB ソケットが最も使用されています。

USB Type-A、B、C、マイクロ USB の広範なポートフォリオにより、将来性のある最大 10 Gbit/s の高速デバイス設計が可能です。USB PCB ソケットは、堅牢な規格である USB 2.0、3.0、3.1 に対応しており、高速かつ簡単なデータ転送を実現します。

個々のコネクタは高い耐久性といった要件を満たし、信頼性の高い接続技術を提供します。

- 最大10.000回のプラグサイクル
- THT、THRまたはSMDのはんだ付け工程に対応
- 180° (垂直 / 縦型) または 90° (水平 / 横型) の種別をご利用いただけます
- ボックス (BX) またはロール (テープオンリール、RL) に梱包
- 強化金属による防食性の向上
- 10 Gbit/sのデータ転送に対応したUSB 3.1 ソケットが高速データ転送を実現
- USB Type-C ソケットは対称的な形状のため差し込み時の間違いがありません
- 安定したプラグ アンド プレイ操作 – システムをシャットダウンまたは再起動せずに接続と切断可能

## 一般注文データ

|            |  |
|------------|--|
| バージョン      | データの最小化 – USBジャック、メス型ヘッダー、480 Mbps, SMDはんだ接続, 90°, ≥ 1500, ピッチ (mm) (P): 2.00 mm, 極数: 4, LCP, 黒色, トレイ (手動式アセンブリ) |
| 注文番号       | <a href="#">2563720000</a>   |
| 種別         | USB2.0A S1H 1.4N4 TY BK  |
| GTIN (EAN) | 4050118572339  |
| 数量         | 100 Stück  |
| パッケージ      | トレイ (手動式アセンブリ)   |

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## 技術データ

## 寸法と重量

|            |            |           |            |
|------------|------------|-----------|------------|
| 深さ         | 14 mm      | 奥行き (インチ) | 0.551 inch |
| 高さ         | 11.22 mm   | 高さ (インチ)  | 0.442 inch |
| 下位バージョンの高さ | 7.12 mm    | 幅         | 14.5 mm    |
| 幅 (インチ)    | 0.571 inch | 正味重量      | 0.001 g    |

## システム仕様

|              |                        |               |                       |
|--------------|------------------------|---------------|-----------------------|
| LED          | いいえ                    | PCB の取り付け     | SMD はんだ接続             |
| はんだピン位置の公差   | 0.1 mm                 | はんだピン寸法       | 八角形                   |
| はんだ付け工程      | リフローハンダ付け, 手動<br>はんだ付け | シールド          | はい                    |
| シールドタブ       | なし                     | シールド材質        | 真鍮                    |
| シールド面        | ニッケルメッキ                | ソルダーピン長 (l)   | 1.4 mm                |
| ピッチ (mm) (P) | 2 mm                   | ピッチ (インチ) (P) | 0.079 "               |
| ブラギング回数      | ≥ 1500                 | 保護度合い         | IP20                  |
| 外向きエルボ       | 90°                    | 差し込み力 / 極、最大  | 35 N                  |
| 引張強度/極、最大    | 10 N                   | 性能カテゴリ        | 480 Mbps              |
| 接続方式         | ソケットコネクタ               | 極当たりソルダーピン数   | 1                     |
| 極数           | 4                      | 製品ファミリー       | データの最小化 - USB<br>ジャック |
| 転送速度         | 480 Mbps               |               |                       |

## 電気プロパティ

|      |           |             |          |
|------|-----------|-------------|----------|
| 定格電圧 | 30 V      | 定格電流        | 1.5 A    |
| 絶縁耐性 | ≥ 1000 MΩ | 耐電圧、接点 / 接点 | 750 V AC |

## 材料データ

|                      |            |             |                            |
|----------------------|------------|-------------|----------------------------|
| 絶縁材                  | LCP        | 色           | 黒色                         |
| カラーチャート (類似)         | RAL 9011   | 絶縁材グループ     | II                         |
| 比較追跡指数 (CTI)         | ≥ 500      | 絶縁耐性        | ≥ 1000 MΩ                  |
| Moisture Level (MSL) | 1          | UL 94 可燃性等級 | V-0                        |
| 接点ベース素材              | リン青銅       | 接点材質        | 銅合金                        |
| 接触表面                 | ニッケル下地金メッキ | プラグ接点の層構造   | 30...80 μ" Ni / ≥ 30 μ" Au |
| 保管温度、最小              | -40 °C     | 保管温度、最大     | 60 °C                      |
| 動作温度、最小              | -40 °C     | 動作温度、最大     | 85 °C                      |

## 梱包

|       |                |        |        |
|-------|----------------|--------|--------|
| パッケージ | トレイ (手動式アセンブリ) | VPE 長  | 261 mm |
| VPE幅  | 207 mm         | VPEの高さ | 16 mm  |

## 分類

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| 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 |

## 環境製品コンプライアンス

|            |   |
|------------|---|
| REACH SVHC | / |
|------------|---|

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## 技術データ

## 承認

ROHS

適合

## ダウンロード

エンジニアリングデータ

[CAD data – STEP](#)

製品変更通知

[20211223 USB 2.0A – Änderung Schirmblech](#)[20211223 USB 2.0A – Change of shielding design](#)

カタログ

[Catalogues in PDF-format](#)

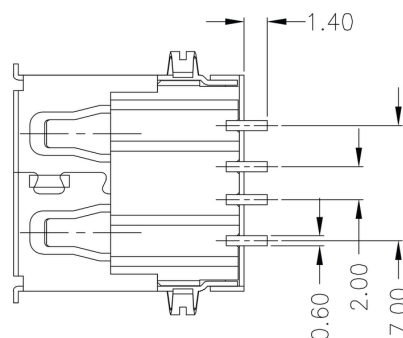
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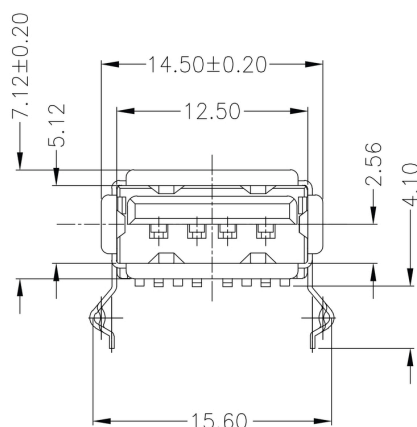
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## 図面

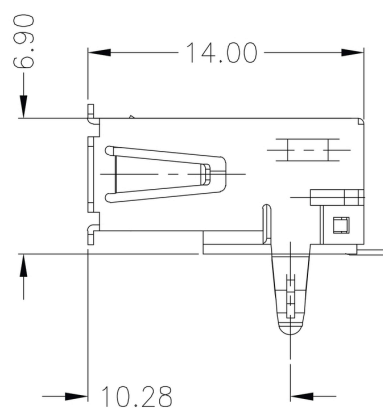
寸法図



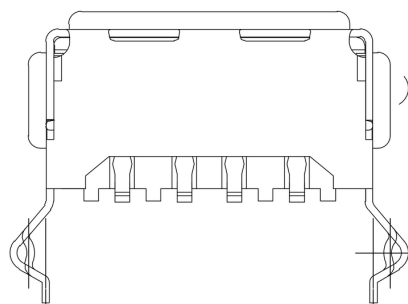
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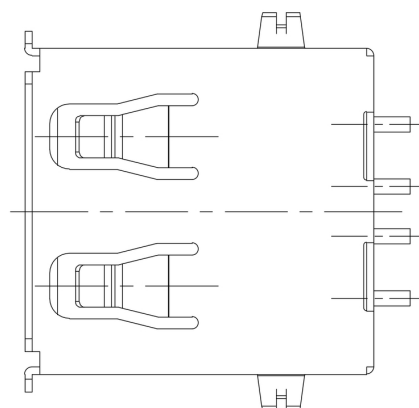
寸法図



寸法図



寸法図



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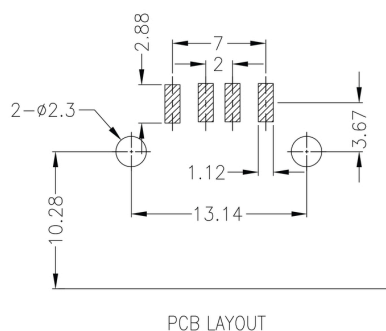
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## 図面

### PCB設計



## USB2.0A S1H 1.4N4 TY BK

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## 図面

## 凡例

|     |      |   |   |   |     |   |   |    |    |                         |
|-----|------|---|---|---|-----|---|---|----|----|-------------------------|
| USB | 3.0A | R | 1 | V | 3.0 | N | 4 | TY | BL | USB3.0A R1V 3.0N4 TY BL |
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## Recommended reflow soldering profile

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## Reflow soldering profile

The perfect soldering profile for SMT Surface Mount Technology is one the most exiting question in SMT production. But there are more than one correct answer: The diagram of temperature-on-time is related to processing features of solder paste and to maximum load of components.

We have to consider the following parameters:

- Time for pre heating
- Maximum temperature
- Time above melting point
- Time for cooling
- Maximum heating rate
- Maximum cooling rate

We recommend a typical solder profile with associated process limits. With preheating components and board are prepared smoothly for the solder phase. Heating rate is typically  $\leq +3\text{K/s}$ . In parallel the solder paste is 'activated'. The time above melting point of 217°C the paste gets liquid and components and boards begin to connect. The maximum temperature of 245°C to 254°C should stay between 10 and 40 seconds. In the cooling phase at  $\geq -6\text{K/s}$  solder is cured. Board and components cool down while avoiding cold cracks.