

STANDARD USB CONNECTORS TYPE B

TE Connectivity's (TE) USB connectors are designed to an industry standard controlled by the USB Implementers Forum. The USB standard has a widespread market adoption and consists of several form factors to accommodate different device requirements. TE's standard USB connectors Type B combine high-speed data capabilities and a charging function in one connector and have many variants of PCB retention, orientation, position, offset and more.

Features

- Reliable and robust design can provide a stable connection, even after thousands of insertions
- The integration of power and data transportation in one connector can provide cost savings
- A large portfolio and highly customizable products provide design flexibility

Benefits

- Proven quality
- Superior robustness

Applications

- Printers
- Scanners
- Hard drives
- Industrial

Standard USB Connectors Type B

General Specifications

TE offers a broad selection of high-quality standard USB connectors Type B. A number of the features and specification-ratings are common for all our standard USB Type connectors, please find these listed in the table below:

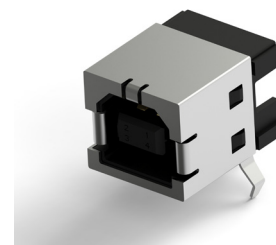
Performance	Parameter	Min	Max	Unit
	Industry standard	USB 2.0		
	Data rate		480	Mbps
	Max. current rating		1	A
	Max. voltage rating		30	V
	Durability		1,500	Mating Cycles
	Moisture Sensitivity Level (MSL)	See table on page 5		
	Operating temperature range	See table on page 5		

Design Aspects	Feature	Value	Unit
	Number of contacts	4	
	Contact pitch	2.5	mm
		0.098	inch
	Contact length (tail-length)	See table on page 5	

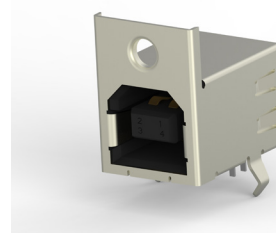
Material	Component	
	Housing	Thermoplastic (high temperature)
	Shell	Nickel or Tin
	Mating contact area	Gold

Process Aspects	Value	
	Contact termination process	See table on page 5
	Pick and place capable	
	Max. soldering temperature	
	Packaging	

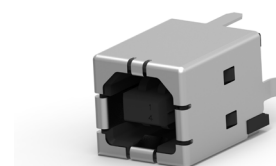
Compliance	
A statement of compliance can be generated for any available USB Type B part number on te.com	



Right angle, through hole



Right angle, through hole with shield



Vertical, through hole

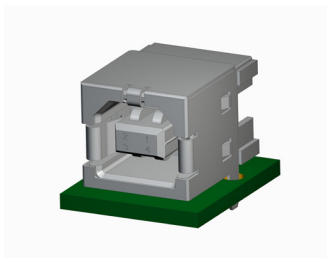
Selection Guide

TE offers Standard USB connectors Type B with a number of options to optimize designs. Below are explanations of the different design options we offer. On page 5 there is a part number table which lists these features for each available part number.

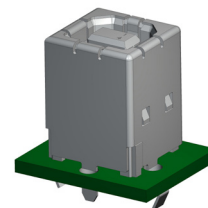
Orientation and Position

We offer standard USB connectors Type B in right angle and vertical orientations

Right Angle



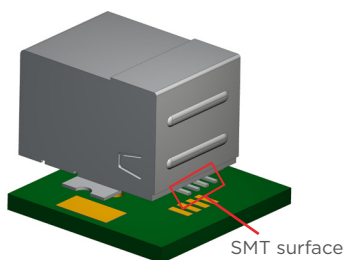
Vertical



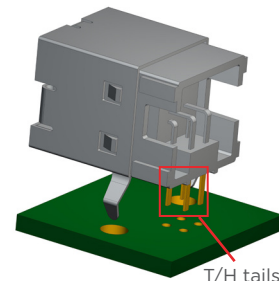
Contact Termination Type

We offer standard USB connectors Type B for both surface mount (SMT) and through hole (T/H) termination

Surface Mount



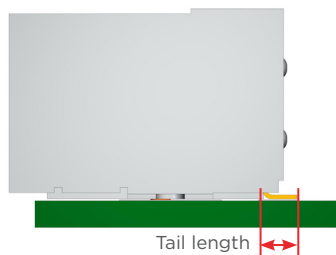
Through Hole



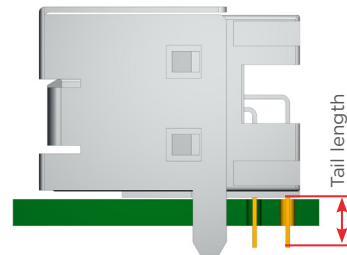
Tail Length

The tail length of a connector is defined as illustrated to the right

Surface Mount Type

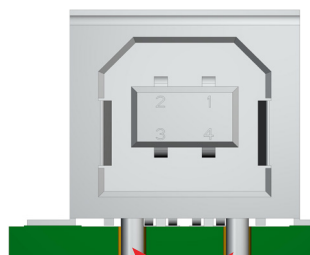


Through Hole Type

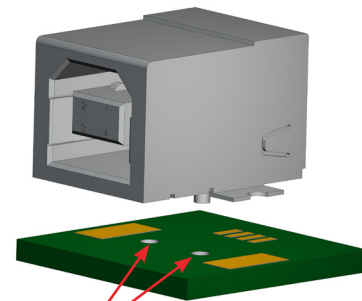


Locating Post

Some of our SMT standard USB connectors Type B have a feature called a locating post which positions the connector on the PCB during the reflow process



Plastic locating posts



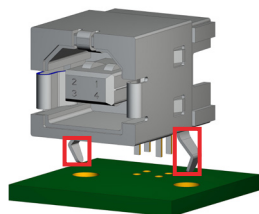
Post holes on PCB

Standard USB Connectors Type B

PCB Retention Type

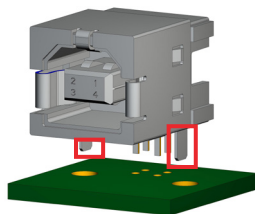
Our standard USB connectors Type B are designed to have a strong mechanical retention when being soldered to a PCB. Depending on your PCB design, there are four different solutions for holding the connector to the PCB after SMT.

Kinked Legs



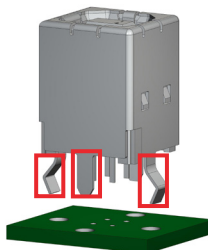
The PCB needs to have holes in which the “DIPs” of the connector will be inserted and soldered to.

Straight Legs



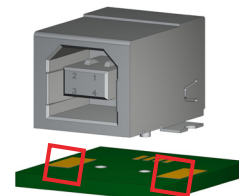
The PCB needs to have holes in which the “DIPs” of the connector will be inserted and soldered to.

Straight Legs & Kinked Legs



The PCB needs to have holes in which the “DIPs” of the connector will be inserted and soldered to.

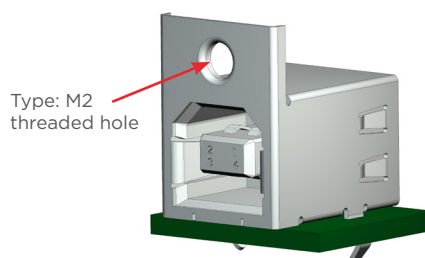
SMT Hold-Downs



The PCB needs to have pads to which the hold-down features on the connector are soldered to.

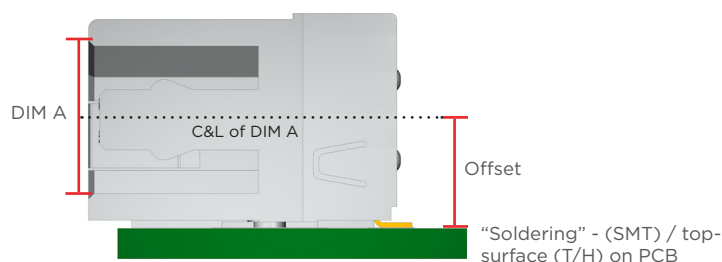
Panel Ground

Some of the connectors have a feature referred to as panel ground, this feature is illustrated in the picture to the right.



Offset

The definition of offset is the distance between the SMT-surface/top of the PCB and the mating-center of the connector. This is helpful when designing a panel/shelf.



Standard USB Connectors Type B

Part Number Detail

Right Angle Orientation

TE Part Number	Housing Color	Mounting Style	Max Soldering Temp.	Pick and Place Capable	Locating Posts	Flange	Panel Ground	PCB Retention	DIP	Offset (mm)	MSL	Operating Temp. (DEGC)	Packaging
292304-1	Black	TH	260	No	No	No	No	Kinked Legs	Yes (2)	0	1	-55 to 85	Tray
292304-2	Black	TH	260	No	No	No	No	Kinked Legs	Yes (2)	0	1	-55 to 85	Tray
292304-3	Black	TH	260	No	No	No	No	Kinked Legs	Yes (2)	0	1	-55 to 85	Tray
292304-4	Black	TH	260	No	No	No	No	Kinked Legs	Yes (2)	0	1	-55 to 85	Tray
292304-5	Black	TH	260	No	No	No	No	Kinked Legs	Yes (2)	0	1	-55 to 85	Tray
292317-4	Black	TH	260	No	No	No	No	Straight Leg	Yes (2)	0	1	-55 to 85	Tray
1734091-1	Black	TH	Not thermo-plastic	No	No	Yes	Yes M2 (Top)	Kinked Legs	Yes (2)	0	1	-55 to 85	Tray
1734346-1	Black	SMT	260	Yes	Yes	No	No	SMT Hold-Down	No	5.69	5a	0 to 50	Tray
1734346-3	Black	SMT	260	Yes	Yes	No	No	SMT Hold-Down	No	5.69	5a	0 to 50	Tray
1734346-4	White	SMT	260	Yes	Yes	No	No	SMT Hold-Down	No	5.69	5a	0 to 50	Tray
1-1734346-1	Black	SMT	260	Yes	Yes	No	No	SMT Hold-Down	No	5.69	5a	0 to 50	Tape & Reel
1-1734346-2	White	SMT	260	Yes	Yes	No	No	SMT Hold-Down	No	5.69	5a	0 to 50	Tape & Reel
1-1734346-3	Black	SMT	260	Yes	Yes	No	No	SMT Hold-Down	No	5.69	5a	0 to 50	Tape & Reel
1-1734346-5	Black	SMT	260	Yes	No	No	No	SMT Hold-Down	No	5.69	5a	0 to 50	Tape & Reel
1-1734346-7	Black	SMT	260	Yes	No	No	No	SMT Hold-Down	No	5.69	5a	0 to 50	Tape & Reel
2-1734346-1	Black	SMT	260	Yes	Yes	No	No	SMT Hold-Down	No	5.69	5a	0 to 50	Tape & Reel
2-1734346-3	Black	SMT	260	Yes	Yes	No	No	SMT Hold-Down	No	5.69	5a	0 to 50	Tape & Reel
2-1734346-5	Black	SMT	260	Yes	No	No	No	SMT Hold-Down	No	5.69	5a	0 to 50	Tape & Reel
4-1734376-7	White	TH	260	Yes	No	No	No	Kinked Legs	Yes (2)	5.69	5a	0 to 50	Tray

Vertical Orientation

TE Part Number	Housing Color	Mounting Style	Max Soldering Temp.	Pick and Place Capable	Locating Posts	Flange	Panel Ground	PCB Retention	DIP	Offset (mm)	MSL	Operating Temp. (DEGC)	Packaging
1734517-1	Black	SMT	260	No	No	Yes	Yes*	SMT Hold-Down	No	-	5a	0 to 50	Tape & Reel
5787834-1	Black	TH	260	No	No	No	No	Kinked Legs	Yes (2)	-	1	-55 to 85	Tray
5787834-2	Natural	TH	260	No	No	No	No	Kinked Legs	Yes (2)	-	1	-55 to 85	Tray
5788336-1	Black	TH	260	No	No	No	No	Straight & Kinked Legs	Yes (4)	-	1	-55 to 85	Tray
5788336-2	Black	TH	260	No	No	No	No	Straight & Kinked Legs	Yes (4)	-	1	-55 to 85	Tray

*Ground finger (Right/Left)

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