

**USB3.1C S1V DN1 RL****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)**General ordering data**

Version	OMNIMATE Data - USB jack, PCB plug-in connector, USB jacks, Type C, SMD solder connection, 180°, Plugging cycles: ≥ 10000, Pitch in mm (P): 0.50, Number of poles: 24, LCP, Reel
Order No.	<a href="#">2987540000</a>
Type	USB3.1C S1V DN1 RL
GTIN (EAN)	4099986854994
Qty.	450 pc(s).
Packaging	Reel

Creation date October 2, 2024 5:51:59 PM CEST

Catalogue status 28.09.2024 / We reserve the right to make technical changes.

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## Technical data

## Dimensions and weights

Depth	4.3 mm	Depth (inches)	0.169 inch
Height	9.25 mm	Height (inches)	0.364 inch
Width	8.94 mm	Width (inches)	0.352 inch
Net weight	10 g		

## System specifications

Mounting onto the PCB	SMD solder connection	Number of poles	24
Number of solder pins per pole	1	Outgoing elbow	180°
Pitch in mm (P)	0.5 mm	Plugging cycles	≥ 10000
Product family	OMNIMATE Data - USB jack	Protection degree	IP20
Shield surface	nickel-plated	Shield tabs	none
Shielding	360° shield contact	Shielding material	Stainless steel, Brass
Side termination, characteristic	None	Solder pin length (l)	1.15 mm
Soldering process	Reflow soldering, Manual soldering		

## Electrical properties

Dielectric strength, contact / contact	750 V AC	Insulation strength	≥ 100 MΩ
Rated voltage	5 V		

## Material data

Insulating material	LCP	Colour	black
Colour chart (similar)	RAL 9011	Insulation strength	≥ 100 MΩ
Moisture Level (MSL)	1	UL 94 flammability rating	V-0
Contact base material	Copper alloy	Contact material	Phosphor bronze alloy
Contact surface	Gold over nickel	Operating temperature, min.	-30 °C
Operating temperature, max.	80 °C		

## Packing

Packaging	Reel	VPE length	0
VPE width	0	VPE height	0

## Classifications

ETIM 6.0	EC002637	ETIM 7.0	EC002637
ETIM 8.0	EC002637	ETIM 9.0	EC002637
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	ECLASS 14.0	27-46-02-01

## Environmental Product Compliance

REACH SVHC	/
RoHS Compliance Status	Compliant

## Approvals

ROHS	Conform
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### Downloads

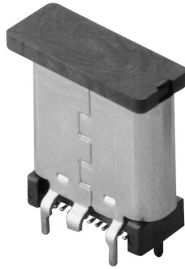
Engineering Data	<a href="#">CAD data – STEP</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>

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## Drawings



## USB3.1C S1V DN1 RL

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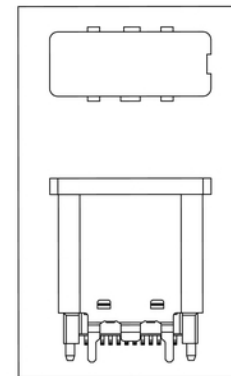
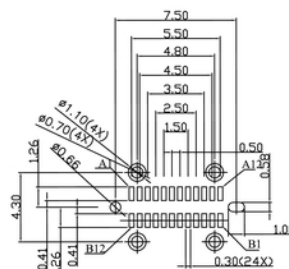
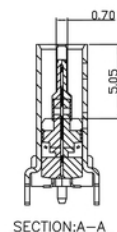
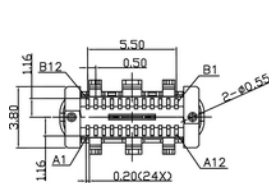
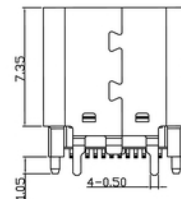
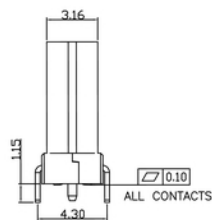
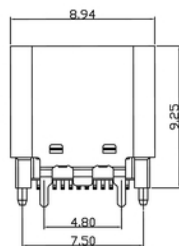
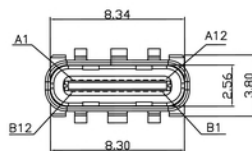
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## Drawings

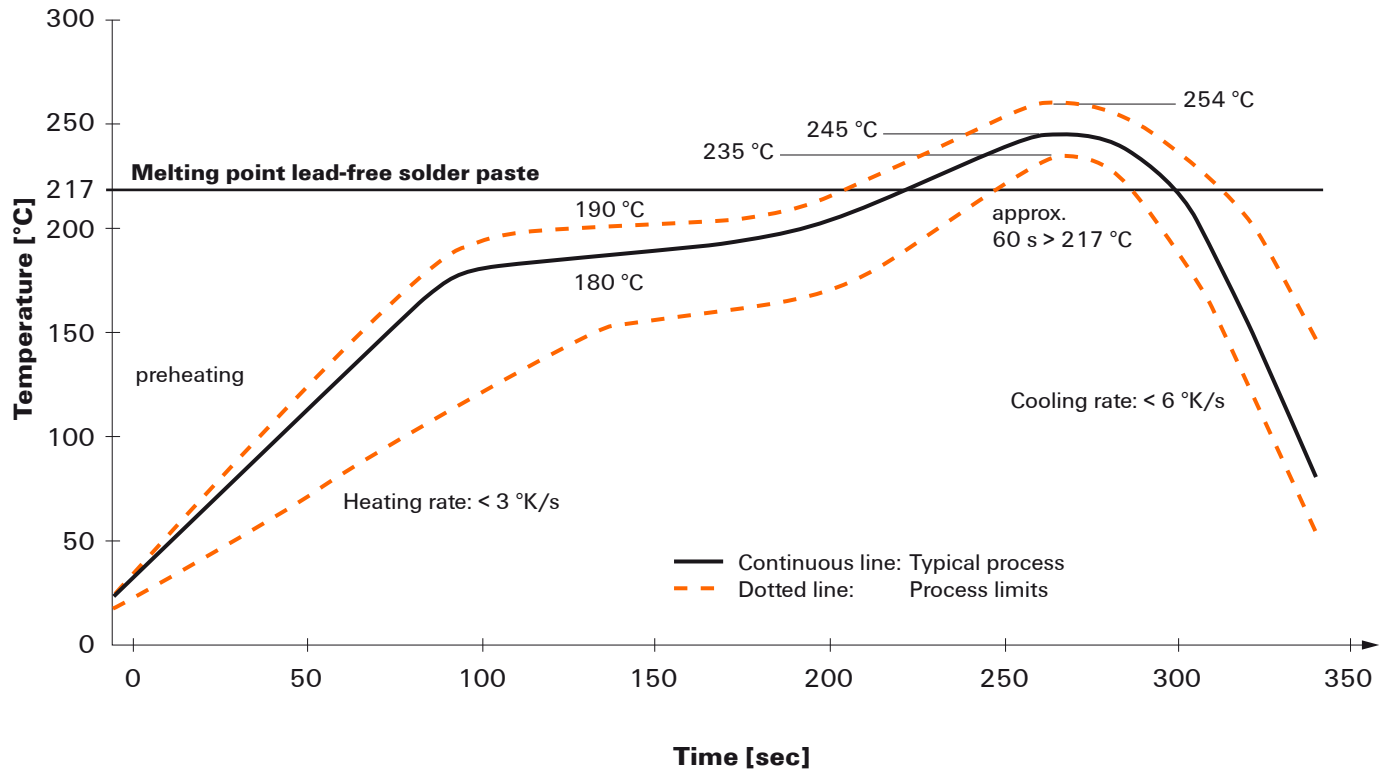


USB TYPE-C PIN ASSIGNMENTS

PIN NUMBER	SIGNAL NAME	PIN NUMBER	SIGNAL NAME
A1	GND	B12	GND
A2	SSTXp1	B11	SSRXp1
A3	SSTXn1	B10	SSRXn1
A4	Vbus	B9	Vbus
A5	CC1	B8	SBU2
A6	Dp1	B7	Dn2
A7	Dn1	B6	Dp2
A8	SBU1	B5	CC2
A9	Vbus	B4	Vbus
A10	SSRXn2	B3	SSTXn2
A11	SSRXp2	B2	SSTXp2
A12	GND	B1	GND

## 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.