

## RJ45C6 R1V 3.2N4N TY

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com



The product range encompasses the following designs:

- 90°, lying (horizontal) and 180°, standing (vertical)
- latch up / latch down
- THT, THR or SMD soldering processes
- Wide range of different design types, also with integrated LEDs and shield contact tabs
- Performance category Cat. 3 to Cat. 6
- Packed either in a tray (TY) or on a roll (tape-on-reel, RL)
- Compatible with modular RJ45 connector according to ANSI / TIA-1096-A and IEC 60603
- Dielectric strength  $\geq 1500$  V AC RMS (2250 V AC peak value) according to IEEE 802.3
- Dielectric strength  $\geq 1500$  V AC (peak value) or  $\geq 1500$  V DC according to IEC 60603

Properties and advantages:

- Extended temperature range of  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  for maximum performance
- Reinforced gold layer ( $30\mu\text{m}$ ) for improved corrosion protection
- At least 0.3mm stand-off ensures a perfect soldering result

### General ordering data

Version	PCB plug-in connector, RJ45 jacks, Cat. 6 , THT/THR solder connection, 180°, LED: No, Number of poles: 8, Tape
Order No.	<a href="#">2634590000</a>
Type	RJ45C6 R1V 3.2N4N TY
GTIN (EAN)	4050118651270
Qty.	140 pc(s).
Packaging	Tape

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## Technical data

### Dimensions and weights

Depth	16.7 mm	Depth (inches)	0.657 inch
Height	16.5 mm	Height (inches)	0.65 inch
Width	16 mm	Width (inches)	0.63 inch
Net weight	7.475 g		

### System specifications

Category	Cat. 6	LED	No
Mounting onto the PCB	THT/THR solder connection	Number of poles	8
Outgoing elbow	180°	Performance-Category	Cat. 6
Pitch in mm (P)	2.54 mm	Plugging cycles	750
Product family	OMNIMATE Data - RJ45 modular jack	Protection degree	IP20
Shield surface	nickel-plated	Shielding	Yes
Solder pin length (l)	3.2 mm	Soldering process	Reflow soldering, Manual soldering, Wave soldering
Tolerance of solder pin position	± 0.1 mm	Type of connection	Solder connection

### Electrical properties

Dielectric strength, contact / contact	1000 V DC	Dielectric strength, contact / shield	1500 V DC
Insulation strength	≥ 500 MΩ	Rated voltage	125 V

### Material data

Insulating material	PA 9T	Colour	black
Colour chart (similar)	RAL 9011	Insulation strength	≥ 500 MΩ
Moisture Level (MSL)	1	UL 94 flammability rating	V-0
Contact surface	Gold over nickel	Operating temperature, min.	-40 °C
Operating temperature, max.	80 °C		

### Packing

Packaging	Tape	VPE length	317 mm
VPE width	188 mm	VPE height	68 mm

### Classifications

ETIM 6.0	EC002637	ETIM 7.0	EC002637
ETIM 8.0	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

### Approvals

ROHS	Conform
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### Downloads

Approval/Certificate/Document of Conformity	<a href="#">Certificate of Compliance</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>

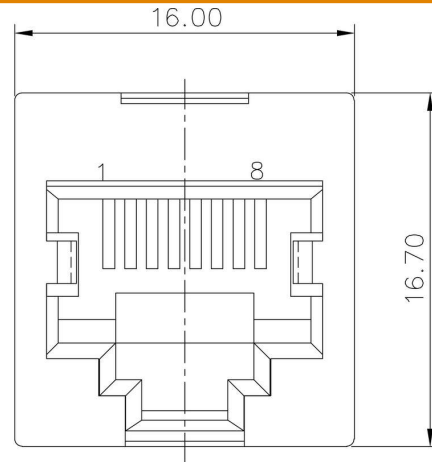
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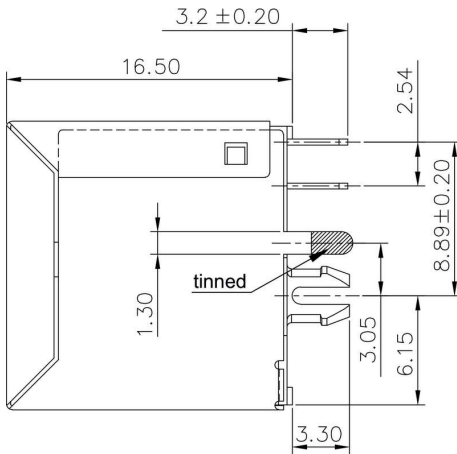
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Drawings

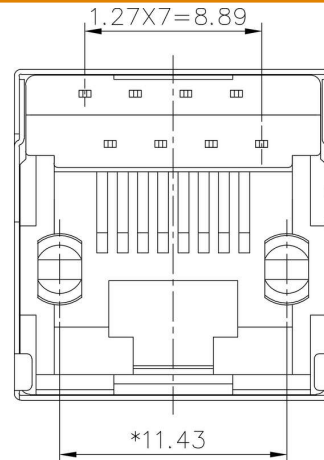
Dimensioned drawing



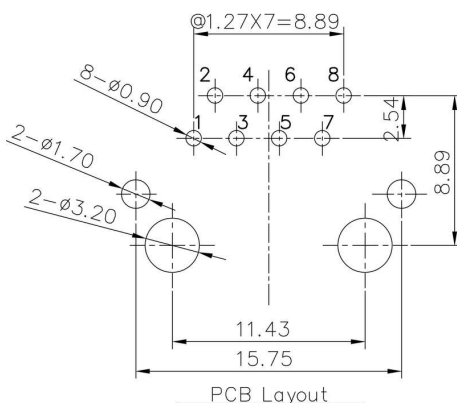
Dimensioned drawing



Dimensioned drawing



PCB design



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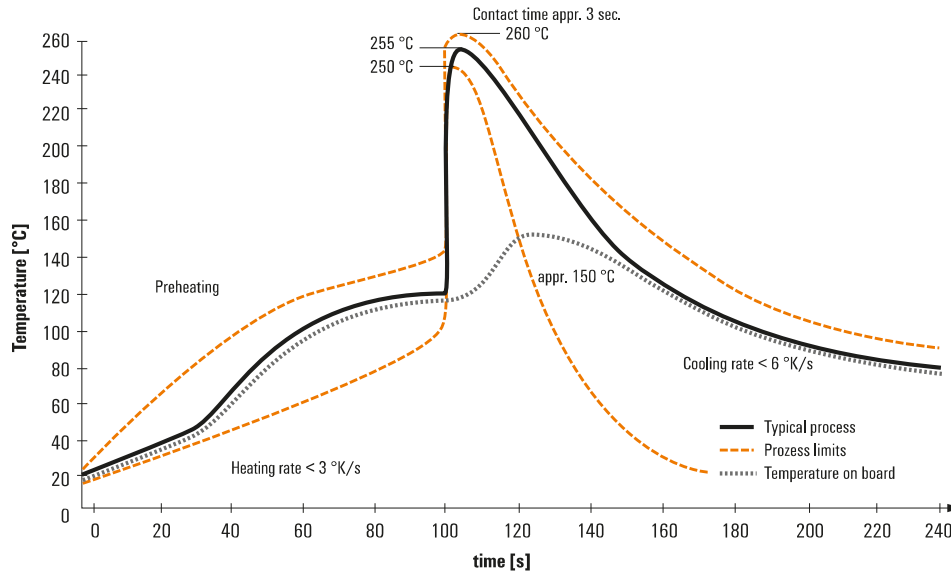
Drawings

Code	Meaning	Value	Description
RJ45	Performance Category	Category 5	Category 5
G1	Performance Category	Category 6	Category 6
R	Assembly on PCB	Through Hole Reflow - THR	Through Hole Reflow - THR
1	Number of Ports	1 Port	1 Port
U	Direction, latch style	Horizontal (90°, side entry), latch up	Horizontal (90°, side entry), latch up
3.2	Solder Pin length	3.2 mm	3.2 mm
E	EMI tabs (ground fingers)	E = with EMI tabs	E = with EMI tabs
4	Contact surface thickness	4	1 = 3µ", 2 = 6µ", 3 = 15µ", 4 = 30µ", 5 = 50µ"
GY/GY	LED	Yellow/Green	Yellow/Green
TY	Packaging	TY	TY in box (manual assembly)
		RL	Tape on Reel (automated assembly)
		Y/G	Yellow/Green
		G/Y	Green/Yellow (standard)
		GY/GY	Green-Yellow/Green-Yellow
		O/G	Orange/Green
		R/O	Red/Orange
		...	... (further combinations possible)
		N	without LED
		E	E = with EMI tabs
		N	N = without EMI tabs
		3.2	3.2 mm
		1.6	1.6 mm
		D	SMD
		U	Horizontal (90°, side entry), latch up
		D	Horizontal (90°, side entry), latch down
		V	Vertical (90°, top entry)
		Y	Diagonal (45°), latch up
		1	1 Port
		12; 14; ...	multi ports side by side, Multiport
		21; 41; ...	multi ports about each other, Multilevel
		R	Through Hole Reflow - THR
		S	Soldering process: Wave or Reflow soldering
		S	Surface Mount Technology - SMT
		T	Soldering process: Reflow soldering
		T	Through Hole Technology - THT
		T	Soldering process: Wave
		C5	Category 5
		C6	Category 6
		C6A	Category 6A
		C5e	Category 5e
		M	10/100 Mbit
		G1	10/100/1000 Mbit
		G10	10 Gbit
		U	Unshielded
		MP	10/100 Mbit with POE+
		MP+	10/100 Mbit with POE+

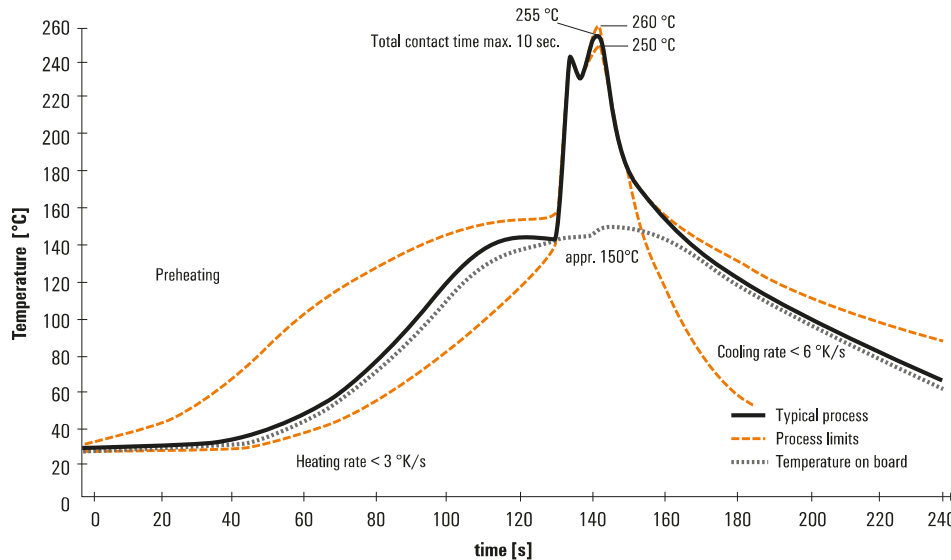
## Recommended wave soldering profiles

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 16  
 D-32758 Detmold  
 Germany  
 Fon: +49 5231 14-0  
 Fax: +49 5231 14-292083  
 www.weidmueller.com

### 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.

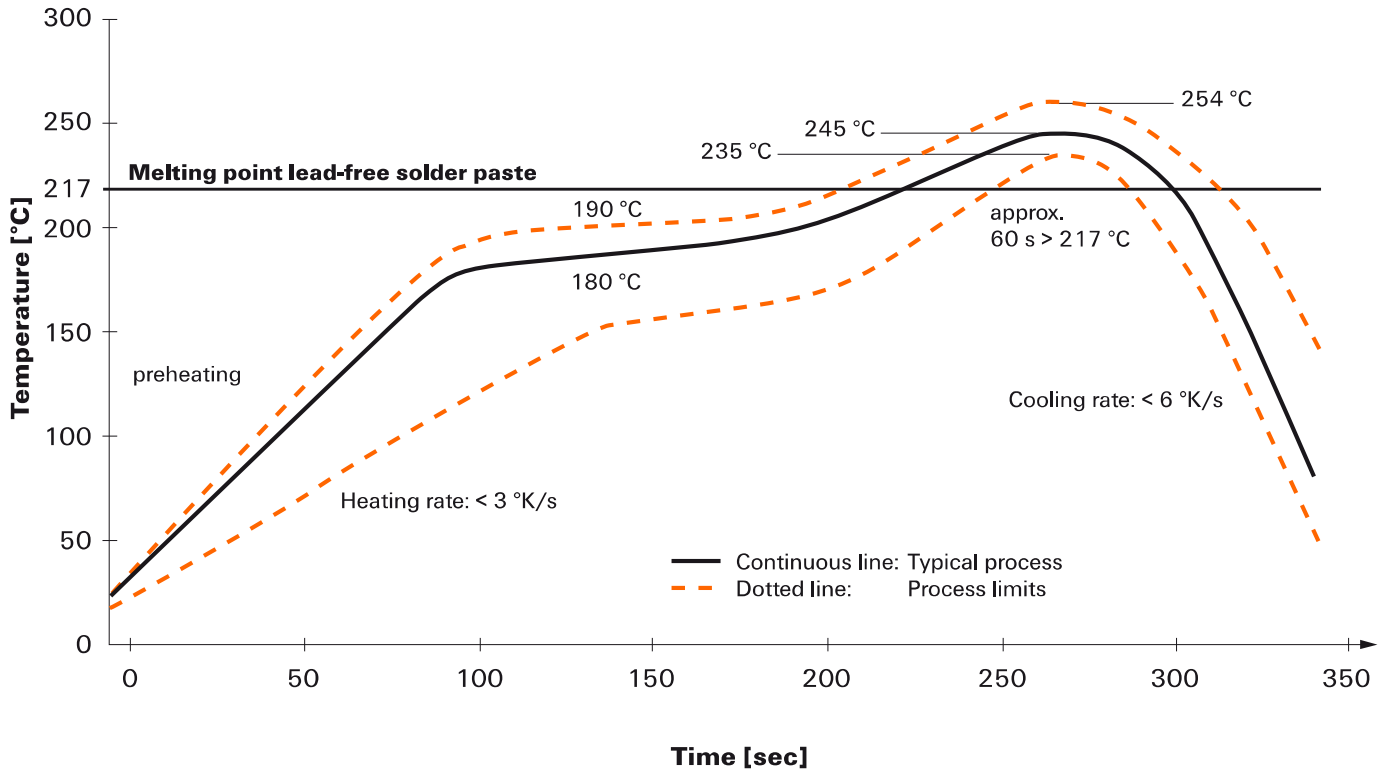
When choosing a suitable profile for your application, the following factors also need to be considered:

- 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.

## 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  $217^\circ\text{C}$  the paste gets liquid and components and boards begin to connect. The maximum temperature of  $245^\circ\text{C}$  to  $254^\circ\text{C}$  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.