OMNIMATE-data - RJ45-uttag omvandlare
RJ45M R12D 3.2N4G/Y RL

Weidmüller Interface GmbH & Co. KG
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RJ45-sändarhylsor (magnetiska) för gigabit-ändamål (1000 base-T) med integrerad kompensering motverkar aktivt induktiva och kapacitiva kopplingar och gör att utrymme kan sparas på kretskortet.

- Lödningsprocess THT eller THR
- Brett utbud av olika designtyper, även med inbyggda lysdioder och skärmade kontaktflikar
- Förpackad antingen på bricka (TY) eller antistatiskt på tape-on-reel (RL)
- Utvidgat temperaturområde, –40 °C till +85 °C
- Förstärkt guldlager för förbättrat korrosionsskydd
- Överföringshastighet upp till 1 Gbit/sek

Allmänna beställningsdata

Typ	RJ45M R12D 3.2N4G/Y RL
Art.nr.	2551900000
Artikelbeteckning	Kretskortsstickanslutning, RJ45-uttag omvandlare, 10/100 MBit/s , THT/THR lödanslutning, 90°, Spärralternativ: nedre, Skärmflikar: ingen, 30-80 µ" Ni / 30- µ" Au , LED: Ja, grön, gul, Antal poler: 8, Tape
GTIN (EAN)	4050118562187
Frp	200 Stück
Förpackning	Tape

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Tekniska data

Mått och vikter

Bredd	31,2 mm	Byggbredd (tum)	1,228 inch
Höjd	16,7 mm	Bygghöjd (tum)	0,657 inch
Höjd lägstbyggande	13,5 mm	Djup	21,35 mm
Byggdjup (tum)	0,841 inch	Nettovikt	7,07 g

Temperaturer

Driftstemperatur, max	85 °C	Driftstemperatur, min.	-40 °C
Lagertemperatur, max.	85 °C	Lagertemperatur, min.	-40 °C

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1

Systemparametrar

Anslutningstyp	Hylsa	Anslutningsvinkel	90°
Antal lödstift per pol	1	Antal poler	8
Avskärmning	Ja	Delning i mm (P)	1,27 mm
Delning i tum (P)	0,05 inch	Diameter bestyckningshål (D)	0,9 mm
Färg på höger LED	gul	Färg på vänster LED	grön
LED	Ja	Montering på kretskortet	THT/THR lödanslutning
Produktfamilj	OMNIMATE-data - RJ45-uttag omvandlare	Skärmmaterial	Mässing
Skyddsklass	IP20	Skärmarea	förnicklad
Skärmflikar	ingen	Spärralternativ	nedre
Stickcykler	750	Tolerans diameter bestyckningshål (D)	± 0,1 mm
Överföringshastighet	10/100 MBit/s		

Elektriska egenskaper

Isolationshållfasthet	> 500 MΩ	Märkström	1,5 A
Märkspänning	125 V AC	Spänningstålighet kontakt/kontakt	≥ 1000 V DC
Spänningstålighet kontakt/skärm	1 500 V DC		

Packaging

Förpackning	Tape	VPE-längd	0 m
VPE-bredd	0 m	VPE-höjd	0 m
Tape reel diameter ⌀ (A)	330 mm	Surface resistance	Rs = 10^{9} - 10^{12} Ω

Materialdata

Isoleringsmaterial	PA 9T	Färgkod	svart
Färgtabell (jämförbar)	RAL 9011	Isoleringsmaterialgrupp	II
CTI	≥ 500	Isolationshållfasthet	> 500 MΩ
Moisture Level (MSL)	1	Brännbarhetsklass enligt UL 94	V-0
Kontaktgrundmaterial	Fosforbrons	Kontaktyta	Guld över nickel
Skiktstruktur för stiftkontakten	30-80 µ" Ni / 30- µ" Au	Lagertemperatur, min.	-40 °C
Lagertemperatur, max.	85 °C	Driftstemperatur, min.	-40 °C
Driftstemperatur, max	85 °C		

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Tekniska data

Klassificeringar

ETIM 6.0	EC002637	eClass 6.2	27-25-05-04
eClass 9.0	27-44-04-02	eClass 9.1	27-44-04-02

Godkännanden

Godkännanden	
ROHS	Uppfyllelse

Downloads

Teknikuppgifter Data	STEP

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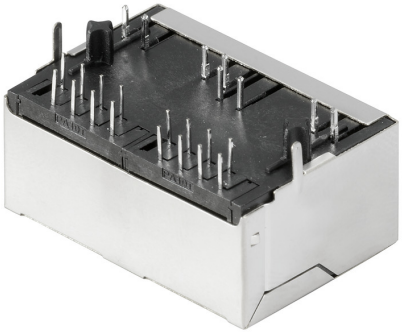
Ritningar

Profilritning



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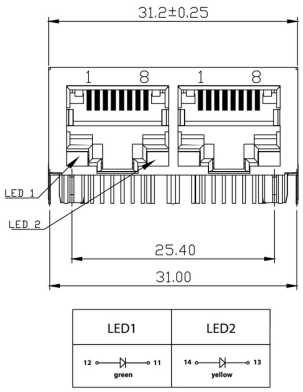

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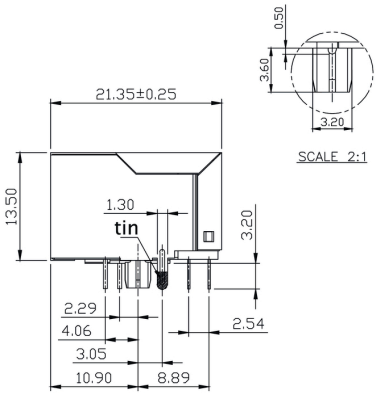
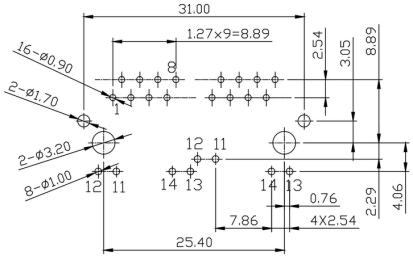


Profilritning

Kopplingsbild

Kretskortsdesign



PCB LAYOUT

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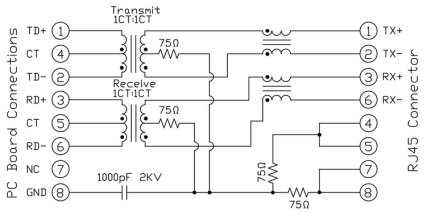

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Ritningar

Schematic

Characteristics

Inductance	350 µH min. @ 100 kHz, 100 mV, 8 mA DC Bias
Leakage Inductance	0.3 µH max. @ 100 kHz,100 mV
Insertion Loss	1.1 dB max. @ (1 - 100) MHz
Return Loss	18 dB min. @ (1 - 30) MHz
	16 dB min. @ (30 - 60) MHz
	12 dB min. @ (60 - 80) MHz
Cross Talk	30 dB min. @ (1 - 100) MHz
Common Mode Rejection	30 dB min. @ (1 - 100) MHz

Type codes

RJ45 | G1 | R | 1 | U | 3.2 | E | 4 | GY/GY | TY — RJ45G1 R1U 3.2E4GY/GY TY

Packaging	**TY**	**T**ray in box (manual assembly)
	RL	Tape on **R**eel (automated assembly)
LED	**Y/G**	**Y**ellow/**G**reen
	G/Y	**G**reen/**Y**ellow (standard)
	GY/GY	**G**reen-**Y**ellow/**G**reen-**Y**ellow
	O/G	**O**range/**G**reen
	R/O	**R**ed/**O**range
	...	... (further combinations possible)
	N	without LED
Contact surface thickness	**4**	1 = 3µ", 2 = 6µ", 3 = 15µ", **4 = 30µ"**, 5 = 50µ"
EMI tabs (ground fingers)	**E**	**E** = with EMI tabs
	N	**N** = without EMI tabs
Solder Pin length	**3.2**	3.2 mm
	1.6	1.6 mm
	D	SM**D**
Direction, latch style	**U**	Horizontal (90°, side entry), latch **u**p
	D	Horizontal (90°, side entry), latch **d**own
	V	**V**ertical (180°, top entry)
	Y	Diagonal (45°), latch up
Number of Ports	**1**	1 Port
	12; 14; ...	multi ports side by side, Multiport
	21; 41; ...	multi ports about each other, Multilevel
Assembly on PCB	**R**	Through Hole **R**eflow - TH**R** Soldering process: Wave or **R**eflow soldering
	S	**S**urface Mount Technology - **SMT** Soldering process: Reflow soldering
	T	Through Hole Technology - TH**T** Soldering process: Wave
Performance Category	**C5**	**C**ategory **5**
	C6	**C**ategory **6**
	C6A	**C**ategory **6A**
	C5e	**C**ategory **5e**
	M	10/100 Mbit
	G1	10/100/1000 Mbit
	G10	10 Gbit
	U	**U**nshielded
	MP	10/100 Mbit with **P**OE
	MP+	10/100 Mbit with **P**OE+

Wave Solder Profile

Recommended wave solderding profiles

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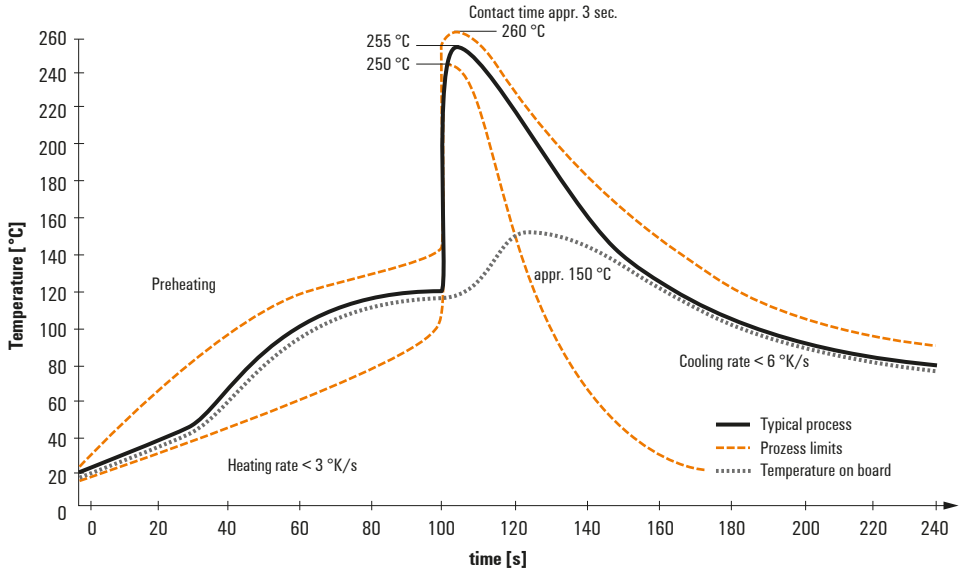
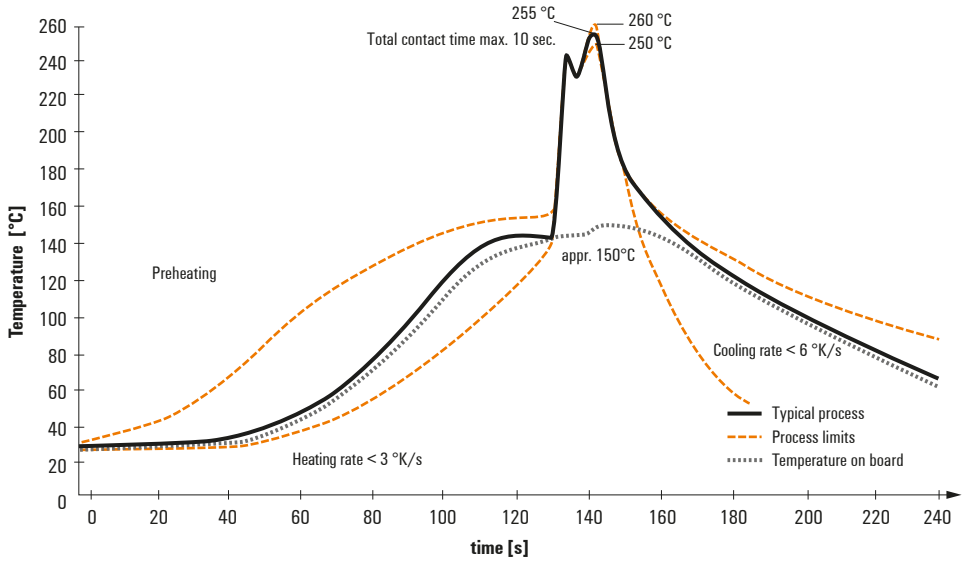
Single Wave:



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.

Reflow Solder Profile

Recommended reflow soldering profile

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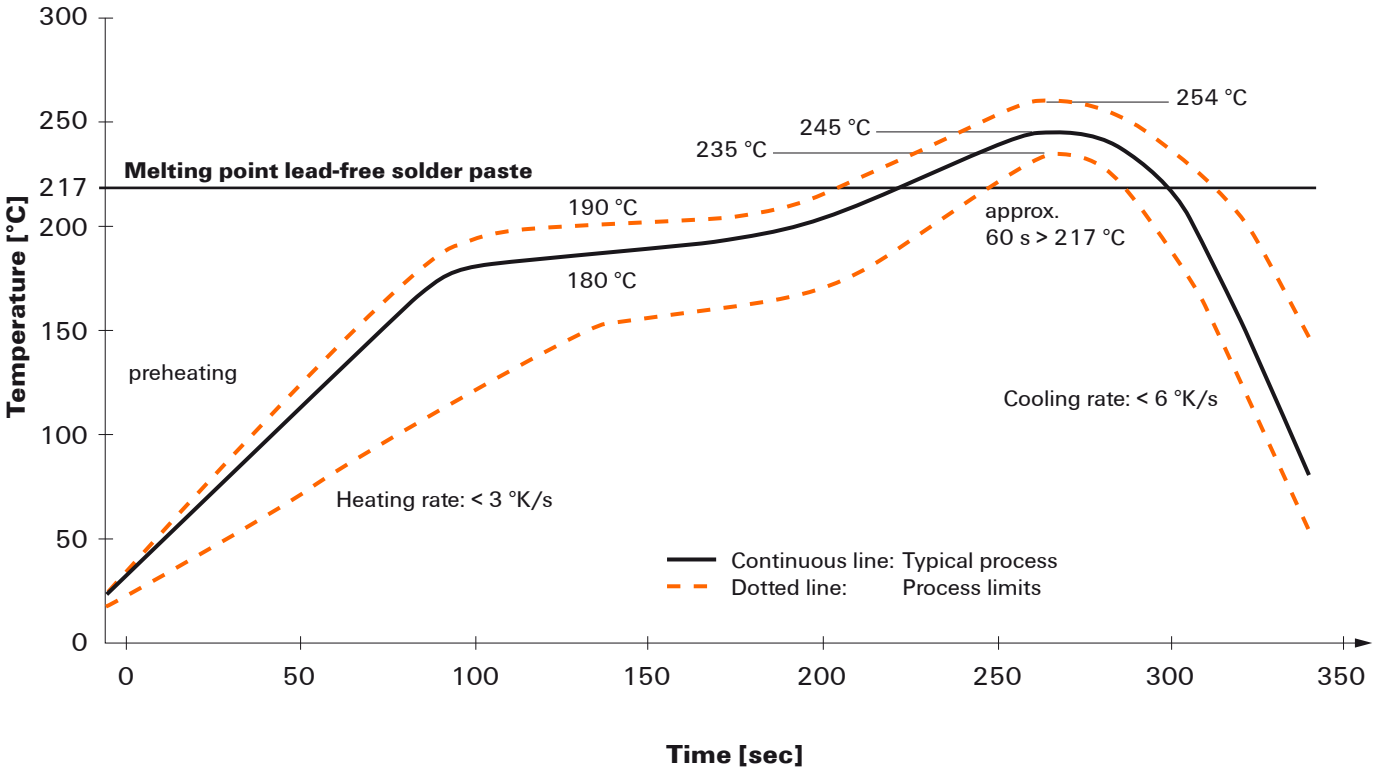

Reflow soldering profile

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 ≤ +3K/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 ≥ -6K/s solder is cured. Board and components cool down while avoiding cold cracks.