OMNIMATE Data - RJ45 jacks transformer RJ45M R1V 1.9N4YG/YG TY

Weidmüller Interface GmbH & Co. KG
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Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com

RJ45 transmitter sockets (magnetics) for gigabit applications (1000 base-T) with integrated compensation actively counteracts inductive and capacitive couplings and saves space on the PCB.

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
• Transmission rates of up to 1 Gbps
• 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 ≥1500 V AC RMS (2250 V AC peak value) according to IEEE 802.3
• Dielectric strength ≥1500 V AC (peak value) or ≥1500 V DC according to IEC 60603
• Compliance with IEEE 802.3 requirements (1000Base-T, 1 Gbps, IEEE 802.3ab or 100Base-Tx, 100 Mbps, IEEE 802.3u)

Properties and advantages:
• Extended temperature range of –40 °C to +85 °C for maximum performance
• Reinforced gold layer (30µ") for improved corrosion protection
• At least 3 mm stand-off ensures a perfect soldering result

Általános rendelési adatok

Típus	RJ45M R1V 1.9N4YG/YG TY
Rendelési szám	2562140000
Verzió	NYÁK dugaszoló csatlakozó, RJ45 jacks transformer, 10/100 MBit/s , THT/THR-forrasztott csatlakozással, 180°, Shield tabs: none, 30-80 µ" Ni / 30- µ" Au , LED: Igen, Zöld / sárga, Pólusszám: 8, Tray (manual assembly)
GTIN (EAN)	4050118570588
Menny.	120 Stück
Csomagolás	Tray (manual assembly)

A létrehozás dátuma 2019. július 24. 19:38:41 CEST

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Műszaki adatok

Méretek és tömegek

Szélesség	16 mm	Szélesség (coll)	0,63 inch
Magasság	18,9 mm	Magasság (coll)	0,744 inch
Legalacsonyabb változat magassága	17 mm	Mélység	16,8 mm
Mélység (coll)	0,661 inch	Nettó tömeg	7 g

Hőmérsékletek

Tárolási hőmérséklet, max.	85 °C	Tárolási hőmérséklet, min.	-40 °C
Üzemi hőmérséklet, max.	85 °C	Üzemi hőmérséklet, min.	-40 °C

Termék környezetvédelmi megfelelősége

REACH SVHC	Lead 7439-92-1

System specifications

Colour of left LED	Zöld / sárga	Csatlakozás típusa	Aljzatos csatlakozó
Dugaszolási ciklusok	750	Felszerelés NYÁK-ra	THT/THR-forrasztott csatlakozással
Forrasztótüskék száma pólusonként	1	Kimenő könyök	180°
LED	Igen	Osztás, inch (P)	0,05 inch
Osztás, mm (P)	1,27 mm	Pólusszám	8
Shield tabs	none	Termékcsalád	OMNIMATE Data - RJ45 jacks transformer
Védelmi osztály	IP20	Árnyékolás	Igen
Árnyékolás felülete	nikkelezett	Árnyékoló anyag	Sárgaréz
Átviteli sebesség	10/100 MBit/s		

Electrical properties

Névleges feszültség	125 V AC	Névleges áram	1,5 A
Szigetelés erőssége	> 500 MΩ	Átütési szilárdság, érintkező / árnyékolás	1500 V DC
Átütési szilárdság, érintkező / érintkező	1000 V DC		

Anyagjellemzők

Szigetelőanyag	PA 9T	Szín	fekete
Színskála (hasonló)	RAL 9011	Szigetelőanyag csoport	II
CTI	≥ 500	Szigetelés erőssége	> 500 MΩ
Moisture Level (MSL)	1	UL 94 éghetőségi osztály	V-0
Érintkező alapanyaga	Foszfor-bronz	Érintkező felület	Arany a nikkel felett
Dugó érintkező rétegének felépítése	30-80 µ" Ni / 30- µ" Au	Tárolási hőmérséklet, min.	-40 °C
Tárolási hőmérséklet, max.	85 °C	Üzemi hőmérséklet, min.	-40 °C
Üzemi hőmérséklet, max.	85 °C		

Csomagolás

Csomagolás	Tray (manual assembly)	VPE hosszúság	0,32 m
VPE szélesség	0,19 m	VPE magasság	0,065 m

Besorolások

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

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Műszaki adatok

Jóváhagyások

Jóváhagyások	
ROHS	Megfelel

Letöltések

Product Change Notification	PCN PCN

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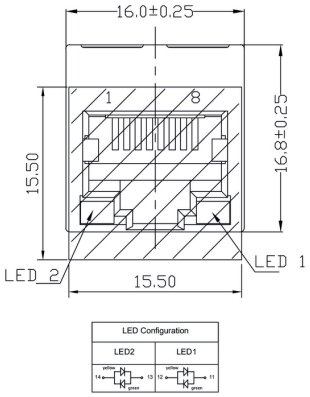
Rajzok

Méretrajz



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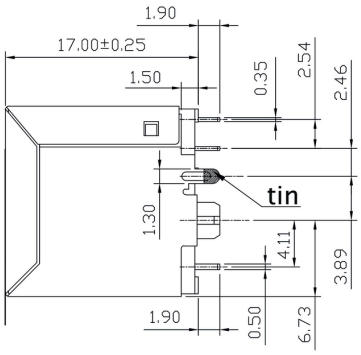

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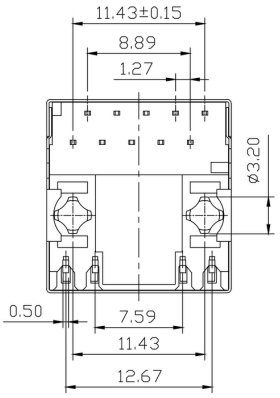

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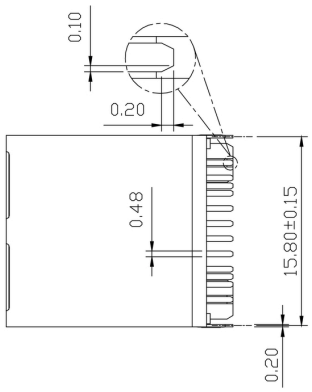

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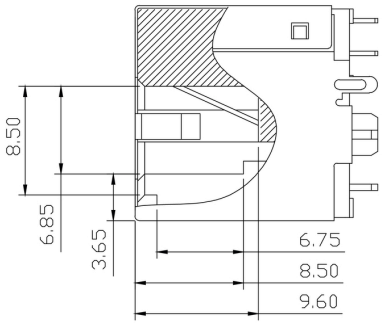

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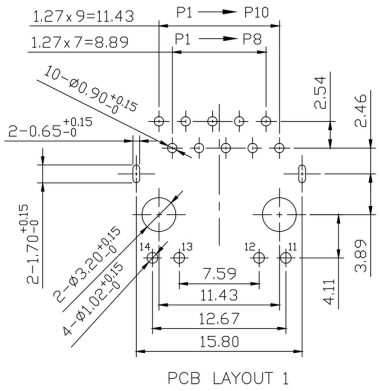

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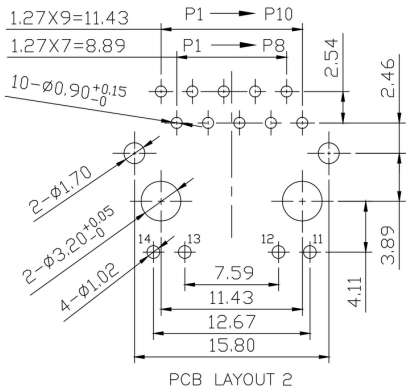
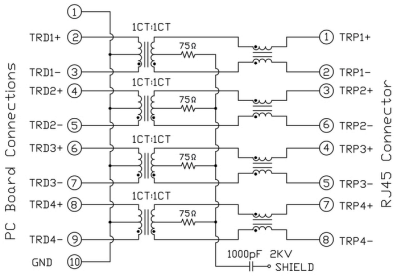
Rajzok

NYÁK kivitel



Kapcsolási rajz



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Rajzok

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 - **S**MT 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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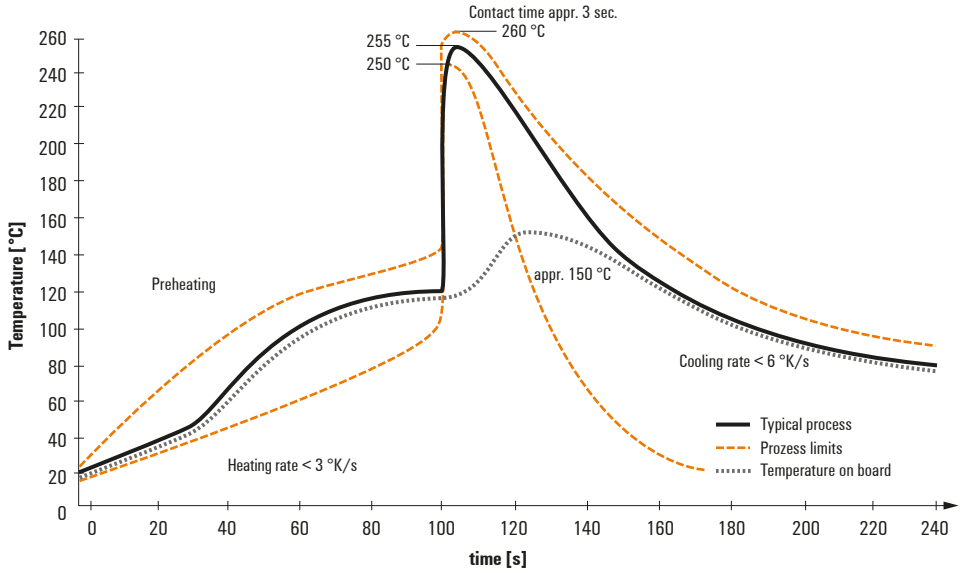
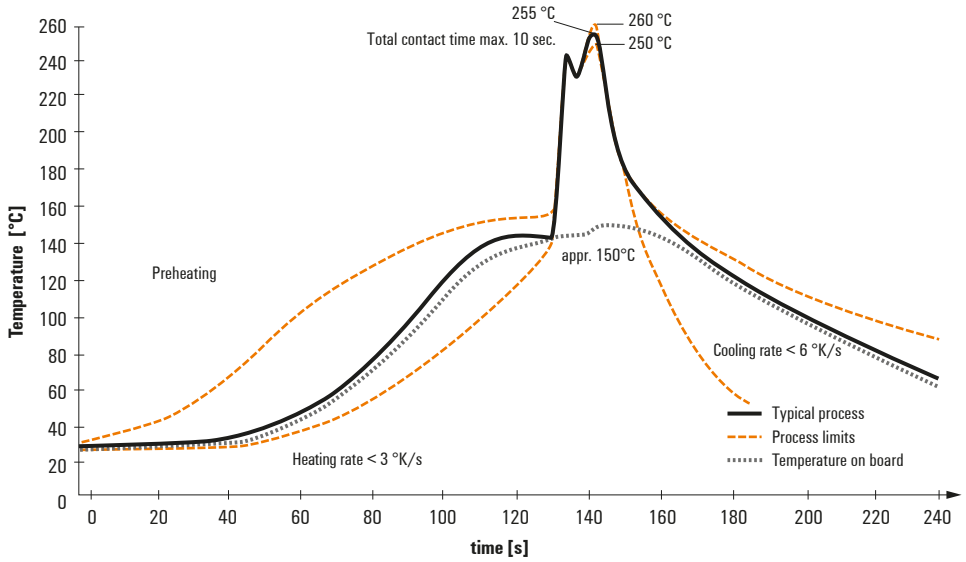
Single Wave:



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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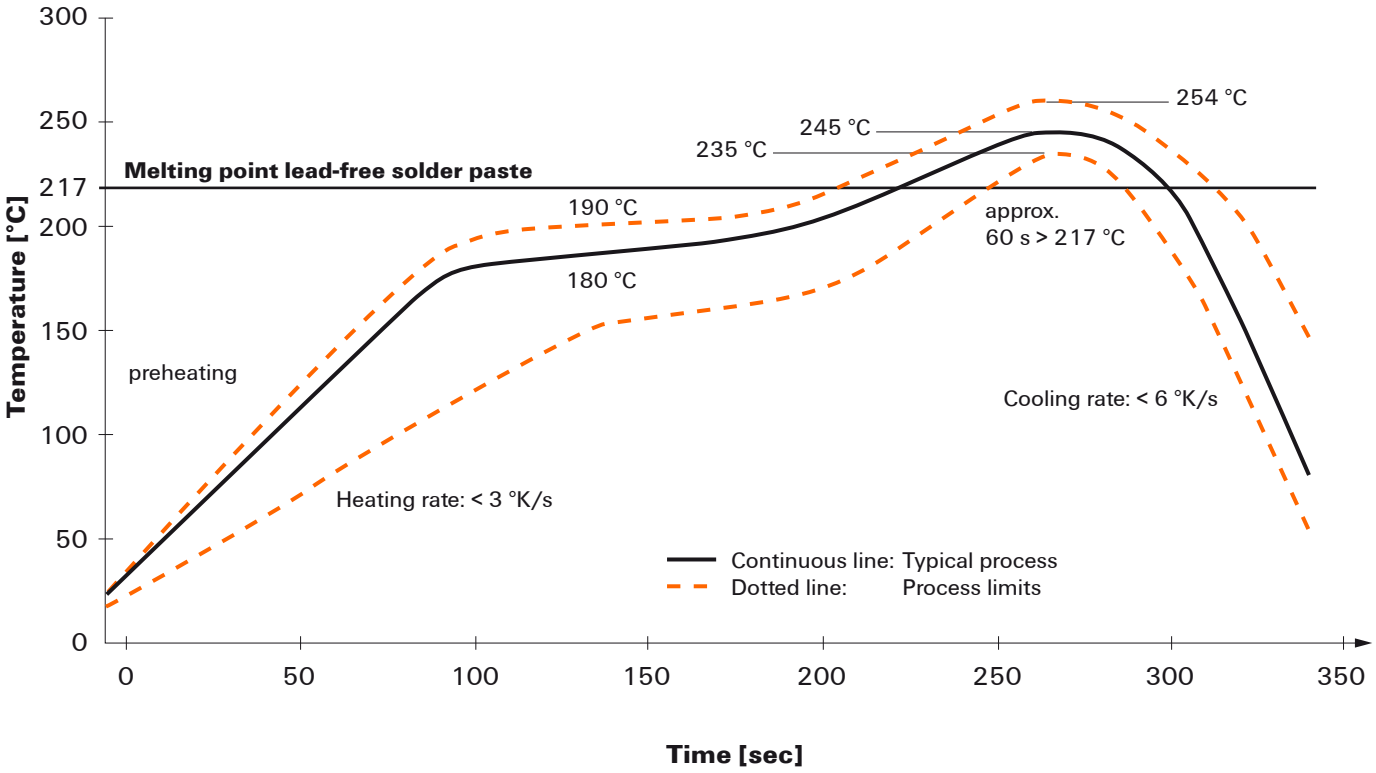

Reflow soldering profile

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.