

**OMNIMATE Data - Trasformatore jack RJ45  
RJ45G1 R12D 3.2E4YG/YG RL**

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

**Illustrazione del prodotto**

Le prese trasmettitore RJ45 (magnetiche) per applicazioni gigabit (1000 a base T) con compensazione integrata controbilanciano attivamente i giunti induttivi e capacitivi e permettono di risparmiare spazio sul circuito stampato.

- Processi di saldatura THT o THR
- Ampia gamma di forme diverse, anche con LED integrati e linguette per contatto schermato
- Versione con imballaggio in vassoio (TY) o su rotolo (Tape-on-Reel, RL)
- Campo di temperatura ampliato da -40°C a +85°C
- Lato dorato rinforzato per una migliore protezione dalla corrosione
- Velocità di trasmissione fino a 1 Gbit/s

**Dati generali per l'ordinazione**

Tipo	RJ45G1 R12D 3.2E4YG/YG RL
Nr.Cat.	<a href="#">2036510000</a>
Versione	Connettore per circuito stampato, Trasformatore jack RJ45, 1000 Mbps, Collegamento a saldare THT/THR, 90°, Opzione Latch: basso, Linguette di schermatura: 6 tabs, 30-80 µm Ni / 30- µm Au, LED: Sì, Verde/giallo, Verde/giallo, Numero di poli: 8, Tape
GTIN (EAN)	4050118408409
CPZ	180 Pezzo
Imballaggio	Tape

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**Dati tecnici****Dimensioni e peso**

Larghezza	31,2 mm	Larghezza (pollici)	1,228 inch
Posizione verticale	16,9 mm	Altezza (pollici)	0,665 inch
Altezza minima	13,6 mm	Profondità	21,5 mm
Profondità (pollici)	0,846 inch	Peso netto	7,675 g

**Temperature**

Temperatura d'esercizio , max.	85 °C	Temperatura d'esercizio , min.	-40 °C
Temperatura di magazzinaggio, max.	85 °C	Temperatura di magazzinaggio, min.	-40 °C

**Conformità ambientale del prodotto**

REACH SVHC	Lead 7439-92-1
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**Caratteristiche elettriche**

Corrente nominale	1,5 A	Resistenza contro l'isolamento	> 500 MΩ
Rigidità dielettrica contatto-contatto	≥ 1000 V DC	Rigidità dielettrica contatto-schermo	1500 V DC
Tensione nominale	125 V		

**Specifiche di sistema**

Angolo di uscita	90°	Cablaggio	a 10 fili
Cicli di inserimento	750	Colore del LED destro	Verde/giallo
Colore del LED sinistro	Verde/giallo	Diametro foro di equipaggiamento (D)	0,9 mm
Dimensioni del codolo a saldare	0,40 x 0,30 mm, Pin LED = 0,50 x 0,50 mm	Famiglia prodotti	OMNIMATE Data - Trasformatore jack RJ45
Grado di protezione	IP20	LED	Sì
Linguette di schermatura	6 tabs	Lunghezza spina a saldare (l)	3,2 mm
Materiale della schermatura	Ottone	Montaggio su circuito stampato	Collegamento a saldare THT/THR
Numero di codoli a saldare per polo	1	Numero di poli	8
Opzione Latch	basso	Passo in mm (P)	1,27 mm
Passo in pollici (P)	0,05 inch	Schermatura	Sì
Superficie di schermatura	nichelato	Tipo di collegamento	Femmina
Tolleranza diametro di equipaggiamento (D)	± 0,1 mm	Velocità di trasmissione	1000 Mbps

**Dati del materiale**

Materiale isolante	PA 9T	Colori	Nero
Tabella dei colori (simile)	RAL 9011	Gruppo materiali isolanti	II
CTI	≥ 500	Resistenza contro l'isolamento	> 500 MΩ
Moisture Level (MSL)	1	Classe d'infiammabilità UL 94	V-0
Materiale base dei contatti	Fosforo bronzo	Superficie dei contatti	Oro su nichel
Struttura a strati del connettore maschio	30-80 μ" Ni / 30- μ" Au	Temperatura di magazzinaggio, min.	-40 °C
Temperatura di magazzinaggio, max.	85 °C	Temperatura d'esercizio , min.	-40 °C
Temperatura d'esercizio , max.	85 °C		

**Imballaggio**

Imballaggio	Tape	Lunghezza VPE	0 m
Larghezza VPE	0 m	Altezza VPE	0 m
Diametro ø bobina nastro (A)	330 mm	Resistenza superficiale	Rs = 10 <sup>9</sup> - 10 <sup>12</sup> Ω

Data di creazione 12 giugno 2019 7.42.18 CEST

Versione catalogo 07.06.2019 / Con riserva di modifiche tecniche

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**Foglio dati****OMNIMATE Data - Trasformatore jack RJ45  
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**Dati tecnici****Classificazioni**

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

**Approvazioni**

Omologazioni

ROHS Conforme**Downloads**

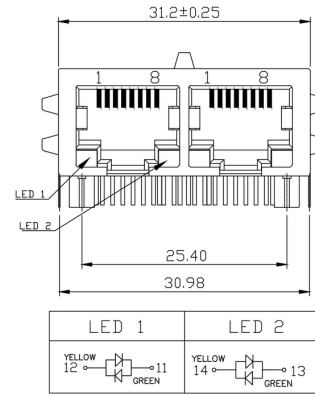
Brochure/Catalogo	<a href="#">MB FREECONTACT EN</a> <a href="#">FL FIELDWIRING EN</a> <a href="#">PI PROFINET CABLING EN</a>
Dati ingegneristici	<a href="#">STEP</a>
Documentazione utente	<a href="#">MAN IE GUIDE DE</a> <a href="#">MAN IE GUIDE EN</a>

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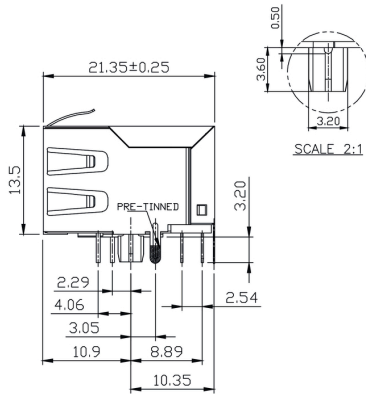
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**Disegni**

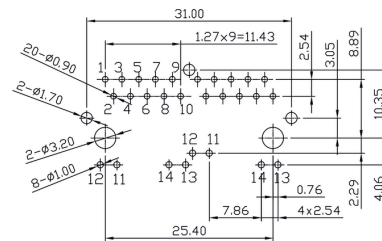
**Disegno quotato**



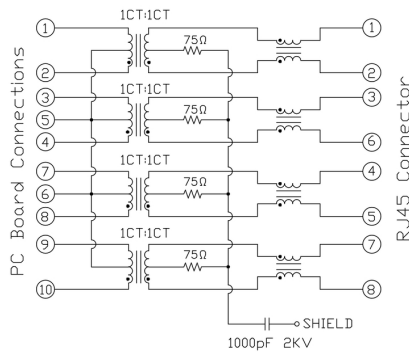
**Disegno quotato**



**Disegno del circuito stampato**



**Schema elettrico**



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**Disegni**
**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																																																																																																																		
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## Recommended wave soldering 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.

## 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.