

OMNIMATE-data - RJ45-uttag omvandlare RJ45G1 R12D 3.2N4YG/YG RL

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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 design typer, 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	RJ45G1 R12D 3.2N4YG/YG RL
Art.nr.	2485370000
Artikelbeteckning	Kretskortsstickanslutning, RJ45-uttag omvandlare, 1000 Mbps, THT/THR lödanslutning, 90°, Spärralternativ: nedre, Skärmflikar: ingen, 30-80 µ" Ni / 30-µ" Au, LED: Ja, grön/gul, grön/gul, Antal poler: 8, Tape
GTIN (EAN)	4050118495966
Frp	200 Stück
Förpackning	Tape

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Tekniska data**Mått och vikter**

Bredd	31,2 mm	Byggbredd (tum)	1,228 inch
Höjd	16,9 mm	Bygghöjd (tum)	0,665 inch
Höjd lägstbyggande	13,6 mm	Djup	21,5 mm
Byggdjup (tum)	0,846 inch	Nettovikt	8,81 g

Temperaturer

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

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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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	Färg på höger LED	grön/gul
Färg på vänster LED	grön/gul	Lödstiftlängd (l)	3,2 mm
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	Överföringshastighet	1000 Mbps

Elektriska egenskaper

Isoleringshållfasthet	> 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	360 mm
VPE-bredd	360 mm	VPE-höjd	120 mm
Tape reel diameter Ø (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	Isoleringshållfasthet	> 500 MΩ
Moisture Level (MSL)	1	Brännbarhetsklass enligt UL 94	V-0
Kontaktgrundmaterial	Fosforbrons	Kontakttyta	Guld över nickel
Skiktstruktur för stiftkontakten	30-80 μ" Ni / 30- μ" Au	Lagertemperatur, min.	-40 °C
Lagertemperatur, max.	85 °C	Drifttemperatur, min.	-40 °C
Drifttemperatur, max	85 °C		

Datablad**OMNIMATE-data - RJ45-uttag omvandlare
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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

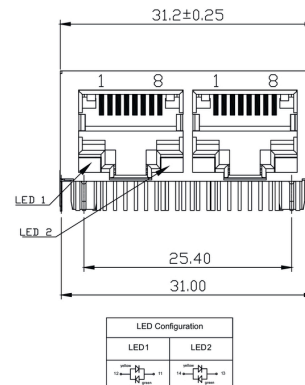
Användardokumentation	MAN IE GUIDE DE MAN IE GUIDE EN
Teknikuppgifter Data	STEP

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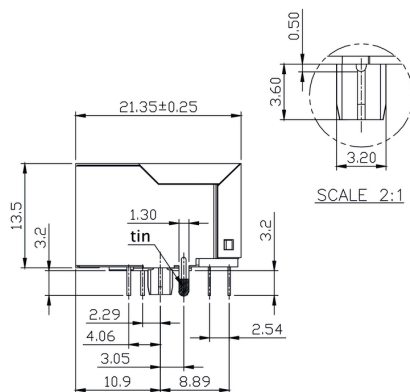
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Ritningar

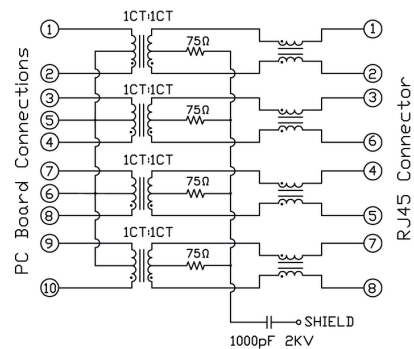
Profilritning



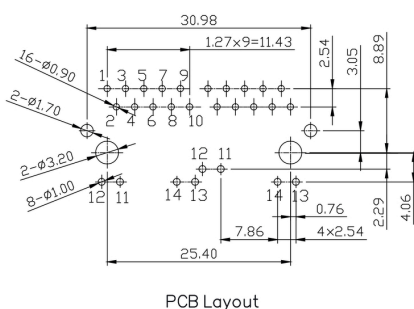
Profilritning



Kopplingsbild



Kretskortsdesign



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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

Code	Description	Options
RJ45	Product family	
G1	Performance Category	C5, C6, C6A, C5e, M, G1, G10, U, MP, MP+
R	Assembly on PCB	R, S, T
U	Direction, latch style	U, D, V, Y
3.2	Solder Pin length	3.2, 1.6, D
E	EMI tabs (ground fingers)	E, N
4	Contact surface thickness	4
GY/GY	LED	Y/G, G/Y, GY/GY, O/G, R/O, ...
TY	Packaging	TY, RL

Option	Description
TY	Tray 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
4	1 = 3µ", 2 = 6µ", 3 = 15µ", 4 = 30µ", 5 = 50µ"
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 (180°, top entry)
Y	Diagonal (45°), latch up
1	1 Port
12; 14; ...	multi ports side by side, Multiport
2; 4; ...	multi ports about each other, Multilevel
R	Through Hole Reflow - THR
S	Soldering process: Wave or Reflow soldering
T	Surface Mount Technology - SMT
	Soldering process: Reflow soldering
	Through Hole Technology - THT
	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

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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.