

Datos OMNIMATE - Transformador de conectores 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

Imagen de producto



Conectores hembra de transmisores RJ45 (magnéticos) para aplicaciones de gigabit (1000 base-T) con compensación integrada contrarrestan activamente acoplamientos inductivos y capacitivos y ahorran espacio en el PCB.

- Procedimientos de soldadura THT o THR
- Amplia gama de diferentes tipos de diseño, también con LED integrados y lengüetas de contacto de apantallado
- Embalaje en bandeja (TY) o en rollo (embalaje en cinta, RL)
- Rango de temperaturas ampliado de -40 °C a +85 °C
- Capa de oro reforzada para protección mejorada contra la corrosión
- Velocidades de transmisión de hasta 1 Gbit/s

Datos generales para pedido

| | |
|------------|--|
| Tipo | RJ45G1 R12D 3.2E4YG/YG RL |
| Código | 2036510000 |
| Versión | Conector para placa c.i., Transformador de conectores RJ45, 1000 Mbps , Conexión por soldadura THT/THR, 90°, Opción de bloqueo: inferior, Anilla de apantallado: 6 tabs, 30-80 µ" Ni / 30- µ" Au , LED: Sí, Verde/amarillo, Verde/amarillo, Número de polos: 8, Tape |
| GTIN (EAN) | 4050118408409 |
| U.E. | 180 Pieza |
| Embalaje | Tape |

Datos OMNIMATE - Transformador de conectores 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

Datos técnicos

Dimensiones y pesos

| | | | |
|--------------------------|------------|--------------------|------------|
| Anchura | 31,2 mm | Anchura (pulgadas) | 1,228 inch |
| Altura | 16,9 mm | Altura (pulgadas) | 0,665 inch |
| Altura construcción baja | 13,6 mm | Profundidad | 21,5 mm |
| Profundidad (pulgadas) | 0,846 inch | Peso neto | 7,675 g |

Temperaturas

| | | | |
|-------------------------------------|-------|-------------------------------------|--------|
| Temperatura de almacenamiento, max. | 85 °C | Temperatura de almacenamiento, min. | -40 °C |
| Temperatura de servicio, max. | 85 °C | Temperatura de servicio, min. | -40 °C |

Conformidad medioambiental del producto

| | |
|------------|----------------|
| REACH SVHC | Lead 7439-92-1 |
|------------|----------------|

Especificaciones del sistema

| | | | |
|--|---|--|--------------------------------|
| Angulo de salida | 90° | Anilla de apantallado | 6 tabs |
| Apantallamiento | Sí | Ciclos de enchufado | 750 |
| Color de LED derecho | Verde/amarillo | Color de LED izquierdo | Verde/amarillo |
| Dimensiones del pin de soldadura | 0,40 x 0,30 mm, Pines de LED = 0,50 x 0,50 mm | Diámetro de la perforación (D) | 0,9 mm |
| Familia del producto | Datos OMNIMATE - Transformador de conectores RJ45 | LED | Sí |
| Longitud del terminal de soldadura (l) | 3,2 mm | Material del apantallamiento | Latón |
| Modo de conexión | 10 conductores | Montaje sobre placas c.i. | Conexión por soldadura THT/THR |
| Número de polos | 8 | Número de terminales de soldadura por polo | 1 |
| Opción de bloqueo | inferior | Paso en mm (P) | 1,27 mm |
| Paso en pulgadas (P) | 0,05 inch | Superficie de apantallado | niquelado |
| Tipo de conexión | Conector hembra | Tipo de protección | IP20 |
| Tolerancia de diámetro de la perforación (D) | ± 0,1 mm | Velocidad de transmisión | 1000 Mbps |

Propiedades eléctricas

| | | | |
|---|-------------|--|-----------|
| Intensidad nominal | 1,5 A | Resistencia a tensiones eléctricas, contacto/apantallado | 1500 V DC |
| Resistencia a tensiones eléctricas, contacto/contacto | ≥ 1000 V DC | Resistencia de aislamiento | > 500 MΩ |
| Tensión nominal | 125 V | | |

Datos del material

| | | | |
|---|------------------------|-------------------------------------|------------------|
| Materiales aislantes | PA 9T | Color | negro |
| Carta de colores (similar) | RAL 9011 | Grupo de materiales aislantes | II |
| CTI | ≥ 500 | Resistencia de aislamiento | > 500 MΩ |
| Moisture Level (MSL) | 1 | Grado inflamabilidad según UL 94 | V-0 |
| Material del contacto | Fósforo, bronce | Superficie de contacto | Oro sobre níquel |
| Estructura de capas del contacto del conector | 30-80 μ" Ni / 30-μ" Au | Temperatura de almacenamiento, min. | -40 °C |
| Temperatura de almacenamiento, max. | 85 °C | Temperatura de servicio, min. | -40 °C |
| Temperatura de servicio, max. | 85 °C | | |

Hoja técnica

Datos OMNIMATE - Transformador de conectores 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

Datos técnicos

Embalaje

| | | | |
|---|--------|-------------------------|-------------------------------|
| Embalaje | Tape | Longitud de VPE | 0 m |
| Anchura VPE | 0 m | Altura de VPE | 0 m |
| Diámetro de bobina de cinta \varnothing (A) | 330 mm | Resistencia superficial | $R_s = 10^9 - 10^{12} \Omega$ |

Clasificaciones

| | | | |
|------------|-------------|------------|-------------|
| 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 |

Homologaciones en línea

Homologaciones



ROHS Conformidad

Descargas

| | |
|---------------------------|--|
| Datos de ingeniería | STEP |
| Documentación del usuario | MAN IE GUIDE DE MAN IE GUIDE EN |
| Folleto/catálogo | MB FREECONTACT EN FL FIELDWIRING EN PI PROFINET CABLING EN |

Datos OMNIMATE - Transformador de conectores 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

Dibujos

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

| Type Code | Parameter | Value | Description |
|--------------------------|---------------------------|-------------|--|
| RJ45 | Product | RJ45 | Product |
| G1 | Performance Category | G1 | Category 5 |
| R | Assembly on PCB | R | Through Hole Reflow - THR |
| U | Direction, latch style | U | Horizontal (90°, side entry), latch up |
| 3.2 | Solder Pin length | 3.2 | 3.2 mm |
| E | EMI tabs (ground fingers) | E | E = with EMI tabs |
| 4 | Contact surface thickness | 4 | 1 = 3µ", 2 = 6µ", 3 = 15µ", 4 = 30µ", 5 = 50µ" |
| GY/GY | LED | GY/GY | Green-Yellow/Green-Yellow |
| TY | Packaging | TY | Tray in box (manual assembly) |
| RJ45G1 R1U 3.2E4YG/YG TY | | | |
| | | 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 |
| | | N | N = without EMI tabs |
| | | D | SMD |
| | | 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 |
| | | S | Surface Mount Technology - SMT |
| | | T | Through Hole Technology - THT |
| | | 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
 Klängenbergstraße 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

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



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.