

## Datos OMNIMATE - Conectores RJ45 RJ45C5 R1U 2.8E4N RL

**Weidmüller Interface GmbH & Co. KG**  
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La gama de productos abarca los diseños siguientes:

- 90° horizontal y 180° vertical
- Bloqueo ascendente/descendente
- Procesos de soldadura THT, THR o SMD
- Amplia gama de diferentes tipos de diseño, también con LED integrados y lengüetas de contacto de apantallado
- Categoría de rendimiento 3 a cat. 6
- Embalaje en bandeja (TY) o en rollo (embalaje en cinta, RL)

Propiedades y ventajas:

- Rango de temperaturas ampliado de -40°C a +85°C para ofrecer la máxima capacidad de rendimiento
- Capa de oro reforzada (30 µ") para ofrecer una protección mejorada frente a la corrosión
- La distancia de al menos 3 mm garantiza un resultado de soldadura perfecto

### Datos generales para pedido

|            |                                                                                                                                                                                                                  |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tipo       | RJ45C5 R1U 2.8E4N RL                                                                                                                                                                                             |
| Código     | <a href="#">2562930000</a>                                                                                                                                                                                       |
| Versión    | Conector para placa c.i., Conectores RJ45, Cat. 5 , Conexión por soldadura THT/THR, 90°, Opción de bloqueo: inferior, Anilla de apantallado: 6 tabs, 30-80 µ" Ni / 30- µ" Au , LED: No, Número de polos: 8, Tape |
| GTIN (EAN) | 4050118571950                                                                                                                                                                                                    |
| U.E.       | 200 Pieza                                                                                                                                                                                                        |
| Embalaje   | Tape                                                                                                                                                                                                             |

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## Datos técnicos

### Dimensiones y pesos

|                          |            |                    |            |
|--------------------------|------------|--------------------|------------|
| Anchura                  | 16,41 mm   | Anchura (pulgadas) | 0,646 inch |
| Altura                   | 15,86 mm   | Altura (pulgadas)  | 0,624 inch |
| Altura construcción baja | 13,11 mm   | Profundidad        | 15,71 mm   |
| Profundidad (pulgadas)   | 0,619 inch | Peso neto          | 8,59 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                               | Categoría                                   | Cat. 5                         |
| Ciclos de enchufado                          | 750                              | Diámetro de la perforación (D)              | 0,9 mm                         |
| Familia del producto                         | Datos OMNIMATE - Conectores RJ45 | LED                                         | No                             |
| Longitud del terminal de soldadura (l)       | 2,75 mm                          | Material del apantallamiento                | Latón                          |
| Modo de conexión                             | 8 núcleos                        | 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                         | Tolerancia de longitud del pin de soldadura | +0,2 / -0,2 mm                 |

### Propiedades eléctricas

|                            |                     |                                                       |           |
|----------------------------|---------------------|-------------------------------------------------------|-----------|
| Intensidad nominal         | 1,5 A               | Resistencia a tensiones eléctricas, contacto/contacto | 1000 V AC |
| Resistencia de aislamiento | 1000 MΩ at 500 V DC | Tensión nominal                                       | 125 V AC  |

### 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          | 1000 MΩ at 500 V DC |
| 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                   |                                     |                     |

### Embalaje

|                                   |        |                         |                                           |
|-----------------------------------|--------|-------------------------|-------------------------------------------|
| Embalaje                          | Tape   | Longitud de VPE         | 0 m                                       |
| Anchura VPE                       | 0 m    | Altura de VPE           | 0 m                                       |
| Diámetro de bobina de cinta Ø (A) | 330 mm | Resistencia superficial | Rs = 10 <sup>9</sup> - 10 <sup>12</sup> Ω |

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## Datos técnicos

### 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

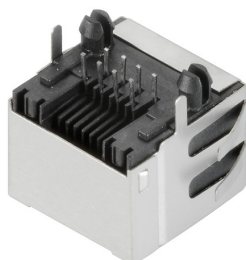
### Descargas

Datos de ingeniería [STEP](#)

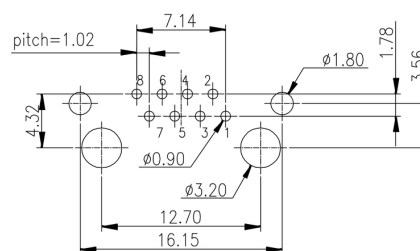
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## Dibujos



### Diseño de la placa de circuito impreso



PCB LAYOUT

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## Dibujos

### Ventaja del producto



Process-optimised packaging  
Tape-on-reel or tray

### Ventaja del producto

### Ventaja del producto



Trouble-free assembly  
Short, chamfered solder pins



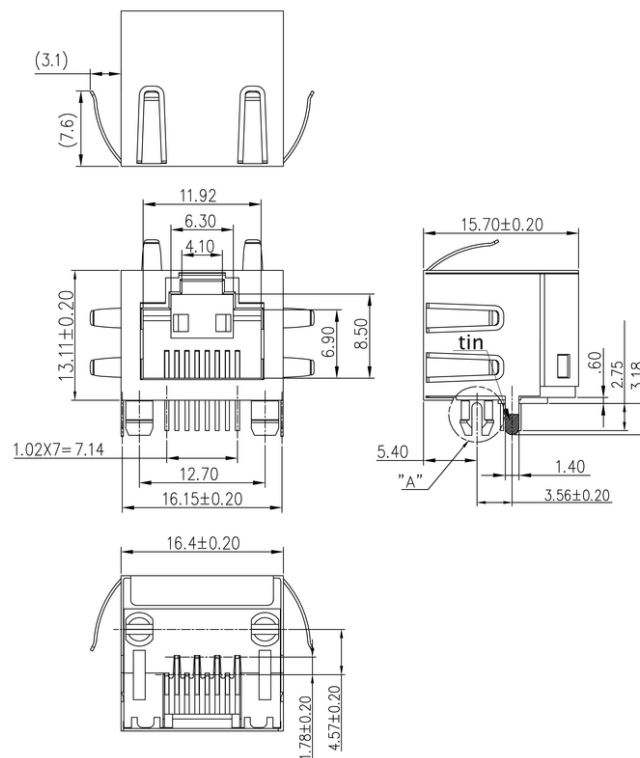
Suitable for all soldering processes  
SMT, THT or THR

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## Dibujos



## Leyenda

| RJ45 G1 R1 U 3.2 E 4 GY/GY TY |             |                                                | RJ45G1 R1U 3.2E4GY/GY TY  |  |
|-------------------------------|-------------|------------------------------------------------|---------------------------|--|
| Packaging                     | TY          | Tray in box (manual assembly)                  |                           |  |
|                               | RL          | Tape on Reel (automated assembly)              |                           |  |
|                               | LED         | Y/G                                            | Yellow/Green              |  |
|                               |             | G/Y                                            | Green/Yellow (standard)   |  |
|                               |             | GY/GY                                          | Green-Yellow/Green-Yellow |  |
| Contact surface thickness     | 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" |                           |  |
| 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           | SMD                                            |                           |  |
| Direction, latch style        | U           | Horizontal (90°, side entry), latch up         |                           |  |
|                               | D           | Horizontal (90°, side entry), latch down       |                           |  |
|                               | V           | Vertical (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 Reflow - THR                      |                           |  |
|                               | S           | Soldering process: Wave or Reflow soldering    |                           |  |
|                               | T           | Surface Mount Technology - SMT                 |                           |  |
|                               | T           | Soldering process: Reflow soldering            |                           |  |
| Performance Category          | 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                            | 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.

We reserve the right to make technical changes.

## 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.