

**OMNIMATE-data - RJ45-uttag  
RJ45C5 S1D 2.7N4N RL****Weidmüller Interface GmbH & Co. KG**

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Germany

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Produktsortimentet omfattar följande designtyper:

- 90°, liggande (horisontell) och 180°, stående (vertikal)
- spärr upp/spärr ned
- Lödningsprocess THT, THR eller SMD
- Brett utbud av olika designtyper, även med inbyggda lysdioder och skärmade kontaktflikar
- Effektkategori kat. 3 till kat. 6
- Förpackad antingen på bricka (TY) eller antistatiskt på tape-on-reel (RL)

Egenskaper och fördelar:

- Utökat temperaturområde på -40 °C till +85 °C för maximal prestandakapacitet
- Förstärkt guldager (30 µm) för förbättrat korrosionsskydd
- Minst 3 mm fritt utrymme garanterar ett perfekt lödresultat

**Allmänna beställningsdata**

|                   |                                                                                                                                                                              |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Typ               | RJ45C5 S1D 2.7N4N RL                                                                                                                                                         |
| Art.nr.           | <a href="#">2000890000</a>                                                                                                                                                   |
| Artikelbeteckning | Kretskortsstickanslutning, RJ45-uttag, Cat. 5 , SMD-lödanslutning, 90°, Spärralternativ: nedre, Skärmflikar: ingen, 30-80 µm Ni / 30- µm Au , LED: Nej, Antal poler: 8, Tape |
| GTIN (EAN)        | 4050118382440                                                                                                                                                                |
| Frp               | 240 Stück                                                                                                                                                                    |
| Förpackning       | Tape                                                                                                                                                                         |

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**Tekniska data****Mått och vikter**

|                    |            |                 |            |
|--------------------|------------|-----------------|------------|
| Bredd              | 15,7 mm    | Byggbredd (tum) | 0,618 inch |
| Höjd               | 14,85 mm   | Bygghöjd (tum)  | 0,585 inch |
| Höjd lägstbyggande | 11,8 mm    | Djup            | 18,7 mm    |
| Byggdjup (tum)     | 0,736 inch | Nettovikt       | 0,008 g    |

**Temperaturer**

|                       |       |                        |        |
|-----------------------|-------|------------------------|--------|
| Driftstemperatur, max | 85 °C | Driftstemperatur, min. | -40 °C |
| Lagertemperatur, max. | 85 °C | Lagertemperatur, min.  | -40 °C |

**Environmental Product Compliance**

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

**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                  | Kategori                 | Cat. 5            |
| Koppling               | 8-trådig                   | Lödstiftlängd (l)        | 3,2 mm            |
| LED                    | Nej                        | Montering på kretskortet | SMD-lödanslutning |
| Produktfamilj          | OMNIMATE-data - RJ45-uttag | Skärmmaterial            | Kopparlegering    |
| Skyddsklass            | IP20                       | Skärmarea                | förnicklad        |
| Skärmflikar            | ingen                      | Spärralternativ          | nedre             |
| Stickcykler            | 750                        |                          |                   |

**Elektriska egenskaper**

|                       |          |                                   |             |
|-----------------------|----------|-----------------------------------|-------------|
| Isolationshållfasthet | > 500 MΩ | Märkström                         | 1,5 A       |
| Märkspänning          | 125 V AC | Spänningstålighet kontakt/kontakt | ≥ 1000 V DC |

**Packaging**

|                          |        |                    |                                           |
|--------------------------|--------|--------------------|-------------------------------------------|
| Förpackning              | Tape   | VPE-längd          | 60 mm                                     |
| VPE-bredd                | 330 mm | VPE-höjd           | 330 mm                                    |
| Tape reel diameter Ø (A) | 330 mm | Surface resistance | Rs = 10 <sup>9</sup> - 10 <sup>12</sup> Ω |

**Materialdata**

|                                  |                        |                                |                  |
|----------------------------------|------------------------|--------------------------------|------------------|
| Isoleringsmaterial               | PA 9T                  | Färgkod                        | svart            |
| Färgtabell (jämförbar)           | RAL 9011               | Isoleringsmaterialgrupp        | II               |
| CTI                              | ≥ 500                  | Isolationshållfasthet          | > 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                  | Driftstemperatur, min.         | -40 °C           |
| Driftstemperatur, max            | 85 °C                  |                                |                  |

**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 |

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## Tekniska data

### Godkännanden

Godkännanden



ROHS

Uppfyllelse

### Downloads

Användardokumentation

[MAN IE GUIDE DE](#)  
[MAN IE GUIDE EN](#)

Broschyr/Katalog

[MB FREECONTACT EN](#)  
[FL FIELDWIRING EN](#)  
[PI PROFINET CABLING EN](#)

Teknikuppgifter Data

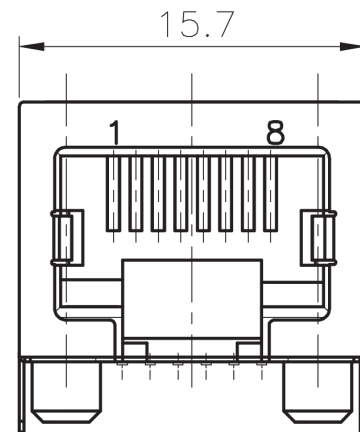
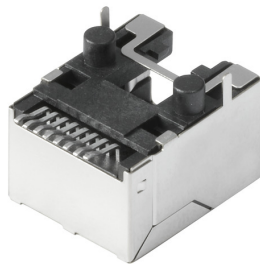
[STEP](#)

## OMNIMATE-data - RJ45-uttag RJ45C5 S1D 2.7N4N RL

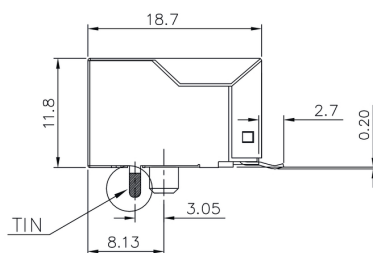
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## Ritningar

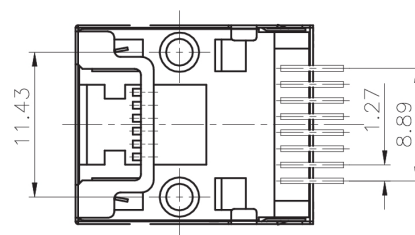
### Profilritning



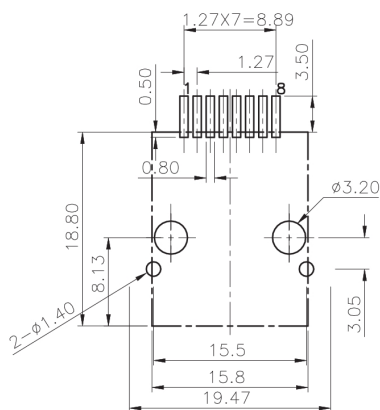
### Profilritning



### Profilritning



### Kretskortsdesign



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## Ritningar

### Produktfördel



Process-optimised packaging  
Tape-on-reel or tray

### Produktfördel

### Produktfördel



Trouble-free assembly  
Short, chamfered solder pins



Suitable for all soldering processes  
SMT, THT or THR

Skapandedatum den 9 juli 2019 15:08:55 CEST

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## Ritningar

## Legend

| RJ45 | G1 | R | 1 | U | 3.2 | E | 4 | GY/GY | TY | RJ45G1 R1U 3.2E4GY/GY TY                       |
|------|----|---|---|---|-----|---|---|-------|----|------------------------------------------------|
|      |    |   |   |   |     |   |   |       |    |                                                |
|      |    |   |   |   |     |   |   |       |    | <b>Packaging</b>                               |
|      |    |   |   |   |     |   |   |       |    | <b>TY</b>                                      |
|      |    |   |   |   |     |   |   |       |    | <b>RL</b>                                      |
|      |    |   |   |   |     |   |   |       |    | Tray in box (manual assembly)                  |
|      |    |   |   |   |     |   |   |       |    | Tape on Reel (automated assembly)              |
|      |    |   |   |   |     |   |   |       |    | <b>LED</b>                                     |
|      |    |   |   |   |     |   |   |       |    | <b>Y/G</b>                                     |
|      |    |   |   |   |     |   |   |       |    | Yellow/Green                                   |
|      |    |   |   |   |     |   |   |       |    | <b>G/Y</b>                                     |
|      |    |   |   |   |     |   |   |       |    | Green/Yellow (standard)                        |
|      |    |   |   |   |     |   |   |       |    | <b>GY/GY</b>                                   |
|      |    |   |   |   |     |   |   |       |    | Green-Yellow/Green-Yellow                      |
|      |    |   |   |   |     |   |   |       |    | <b>O/G</b>                                     |
|      |    |   |   |   |     |   |   |       |    | Orange/Green                                   |
|      |    |   |   |   |     |   |   |       |    | <b>R/O</b>                                     |
|      |    |   |   |   |     |   |   |       |    | Red/Orange                                     |
|      |    |   |   |   |     |   |   |       |    | ... (further combinations possible)            |
|      |    |   |   |   |     |   |   |       |    | <b>N</b>                                       |
|      |    |   |   |   |     |   |   |       |    | without LED                                    |
|      |    |   |   |   |     |   |   |       |    | <b>Contact surface thickness</b>               |
|      |    |   |   |   |     |   |   |       |    | <b>4</b>                                       |
|      |    |   |   |   |     |   |   |       |    | 1 = 3µ", 2 = 6µ", 3 = 15µ", 4 = 30µ", 5 = 50µ" |
|      |    |   |   |   |     |   |   |       |    | <b>EMI tabs (ground fingers)</b>               |
|      |    |   |   |   |     |   |   |       |    | <b>E</b>                                       |
|      |    |   |   |   |     |   |   |       |    | E = with EMI tabs                              |
|      |    |   |   |   |     |   |   |       |    | <b>N</b>                                       |
|      |    |   |   |   |     |   |   |       |    | N = without EMI tabs                           |
|      |    |   |   |   |     |   |   |       |    | <b>Solder Pin length</b>                       |
|      |    |   |   |   |     |   |   |       |    | <b>3.2</b>                                     |
|      |    |   |   |   |     |   |   |       |    | 3.2 mm                                         |
|      |    |   |   |   |     |   |   |       |    | <b>1.6</b>                                     |
|      |    |   |   |   |     |   |   |       |    | 1.6 mm                                         |
|      |    |   |   |   |     |   |   |       |    | <b>D</b>                                       |
|      |    |   |   |   |     |   |   |       |    | SMD                                            |
|      |    |   |   |   |     |   |   |       |    | <b>Direction, latch style</b>                  |
|      |    |   |   |   |     |   |   |       |    | <b>U</b>                                       |
|      |    |   |   |   |     |   |   |       |    | Horizontal (90°, side entry), latch up         |
|      |    |   |   |   |     |   |   |       |    | <b>D</b>                                       |
|      |    |   |   |   |     |   |   |       |    | Horizontal (90°, side entry), latch down       |
|      |    |   |   |   |     |   |   |       |    | <b>V</b>                                       |
|      |    |   |   |   |     |   |   |       |    | Vertical (180°, top entry)                     |
|      |    |   |   |   |     |   |   |       |    | <b>Y</b>                                       |
|      |    |   |   |   |     |   |   |       |    | Diagonal (45°), latch up                       |
|      |    |   |   |   |     |   |   |       |    | <b>Number of Ports</b>                         |
|      |    |   |   |   |     |   |   |       |    | <b>1</b>                                       |
|      |    |   |   |   |     |   |   |       |    | 1 Port                                         |
|      |    |   |   |   |     |   |   |       |    | <b>12; 14; ...</b>                             |
|      |    |   |   |   |     |   |   |       |    | multi ports side by side, Multiport            |
|      |    |   |   |   |     |   |   |       |    | <b>21; 41; ...</b>                             |
|      |    |   |   |   |     |   |   |       |    | multi ports about each other, Multilevel       |
|      |    |   |   |   |     |   |   |       |    | <b>Assembly on PCB</b>                         |
|      |    |   |   |   |     |   |   |       |    | <b>R</b>                                       |
|      |    |   |   |   |     |   |   |       |    | Through Hole Reflow - THR                      |
|      |    |   |   |   |     |   |   |       |    | Soldering process: Wave or Reflow soldering    |
|      |    |   |   |   |     |   |   |       |    | <b>S</b>                                       |
|      |    |   |   |   |     |   |   |       |    | Surface Mount Technology - SMT                 |
|      |    |   |   |   |     |   |   |       |    | Soldering process: Reflow soldering            |
|      |    |   |   |   |     |   |   |       |    | <b>T</b>                                       |
|      |    |   |   |   |     |   |   |       |    | Through Hole Technology - THT                  |
|      |    |   |   |   |     |   |   |       |    | Soldering process: Wave                        |
|      |    |   |   |   |     |   |   |       |    | <b>Performance Category</b>                    |
|      |    |   |   |   |     |   |   |       |    | <b>C5</b>                                      |
|      |    |   |   |   |     |   |   |       |    | Category 5                                     |
|      |    |   |   |   |     |   |   |       |    | <b>C6</b>                                      |
|      |    |   |   |   |     |   |   |       |    | Category 6                                     |
|      |    |   |   |   |     |   |   |       |    | <b>C6A</b>                                     |
|      |    |   |   |   |     |   |   |       |    | Category 6A                                    |
|      |    |   |   |   |     |   |   |       |    | <b>C5e</b>                                     |
|      |    |   |   |   |     |   |   |       |    | Category 5e                                    |
|      |    |   |   |   |     |   |   |       |    | <b>M</b>                                       |
|      |    |   |   |   |     |   |   |       |    | 10/100 Mbit                                    |
|      |    |   |   |   |     |   |   |       |    | <b>G1</b>                                      |
|      |    |   |   |   |     |   |   |       |    | 10/100/1000 Mbit                               |
|      |    |   |   |   |     |   |   |       |    | <b>G10</b>                                     |
|      |    |   |   |   |     |   |   |       |    | 10 Gbit                                        |
|      |    |   |   |   |     |   |   |       |    | <b>U</b>                                       |
|      |    |   |   |   |     |   |   |       |    | Unshielded                                     |
|      |    |   |   |   |     |   |   |       |    | <b>MP</b>                                      |
|      |    |   |   |   |     |   |   |       |    | 10/100 Mbit with POE                           |
|      |    |   |   |   |     |   |   |       |    | <b>MP+</b>                                     |
|      |    |   |   |   |     |   |   |       |    | 10/100 Mbit with POE+                          |

## Recommended reflow soldering profile

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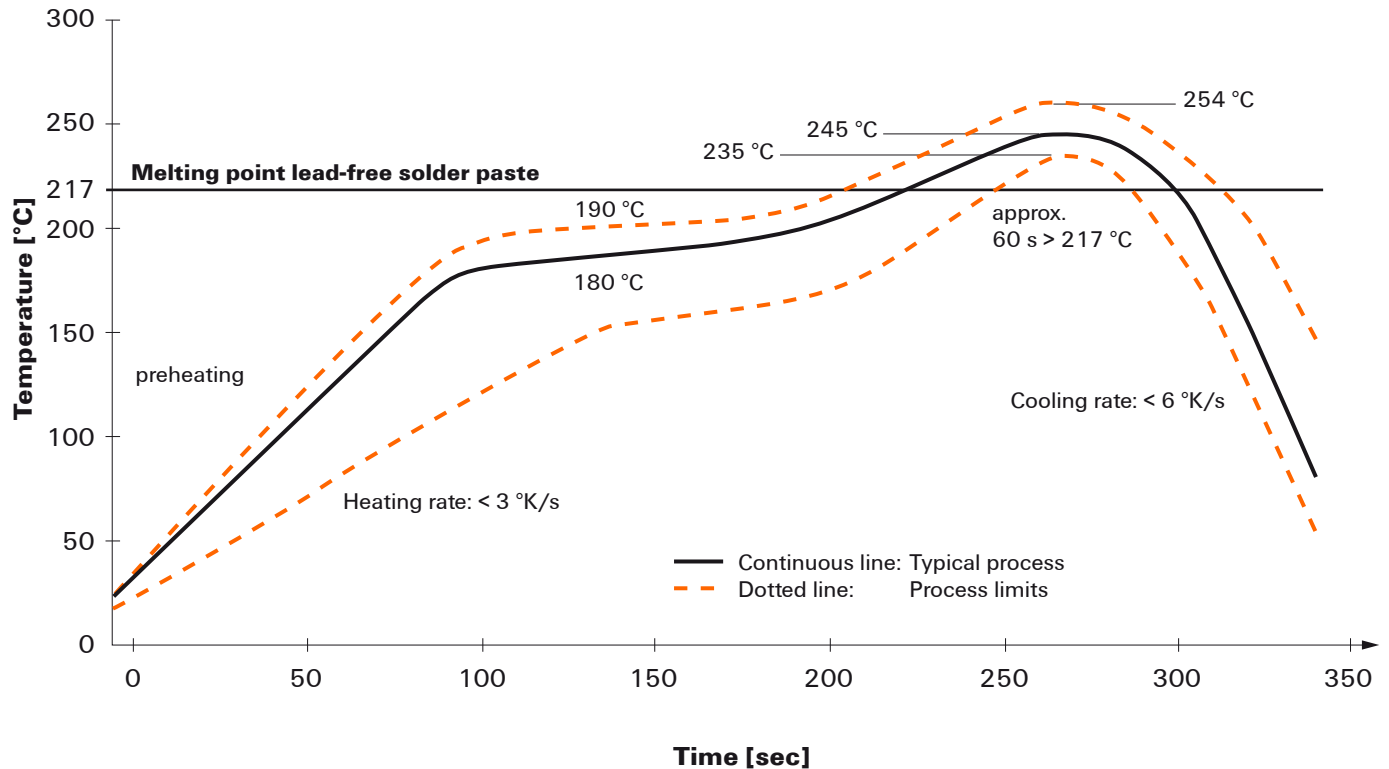
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## Reflow soldering profile

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.