

RJ45C5E S1U DE4N RL

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com



The product range encompasses the following designs:

- 90°, lying (horizontal) and 180°, standing (vertical)
- latch up / latch down
- THT, THR or SMD soldering processes
- Wide range of different design types, also with integrated LEDs and shield contact tabs
- Performance category Cat. 3 to Cat. 6
- Packed either in a tray (TY) or on a roll (tape-on-reel, RL)
- Compatible with modular RJ45 connector according to ANSI / TIA-1096-A and IEC 60603
- Dielectric strength ≥ 1500 V AC RMS (2250 V AC peak value) according to IEEE 802.3
- Dielectric strength ≥ 1500 V AC (peak value) or ≥ 1500 V DC according to IEC 60603

Properties and advantages:

- Extended temperature range of -40°C to $+85^{\circ}\text{C}$ for maximum performance
- Reinforced gold layer ($30\mu\text{m}$) for improved corrosion protection
- At least 0.3mm stand-off ensures a perfect soldering result

General ordering data

| | |
|------------|--|
| Version | OMNIMATE Data - RJ45 modular jack, PCB plug-in connector, Cat. 5e, SMD solder connection, 90°, top, 6 tabs, No, Plugging cycles: 750, Number of poles: 8, PA 9T, 30...80 μm Ni / ≥ 30 μm Au, Tape |
| Order No. | 2562940000 |
| Type | RJ45C5E S1U DE4N RL |
| GTIN (EAN) | 4050118571967 |
| Qty. | 200 items |
| Packaging | Tape |

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Technical data

Approvals

| | |
|-------------------------|----------------------------|
| Approvals | CURUS |
| ROHS | Conform |
| UL File Number Search | UL Website |
| Certificate No. (cURus) | E471884 |

Dimensions and weights

| | | | |
|--------------------------|-------------|-----------------|-------------|
| Depth | 15.7 mm | Depth (inches) | 0.6181 inch |
| Height | 14.71 mm | Height (inches) | 0.5791 inch |
| Height of lowest version | 13.41 mm | Width | 18.8 mm |
| Width (inches) | 0.7402 inch | Net weight | 3.38 g |

Environmental Product Compliance

| | |
|------------------------|-----------------------------|
| RoHS Compliance Status | Compliant without exemption |
| REACH SVHC | No SVHC above 0.1 wt% |

System specifications

| | |
|---|---|
| Number of poles | 8 |
| LED | No |
| Solder pin length (l) | 3.05 mm |
| Mounting onto the PCB | SMD solder connection |
| Pitch in inches (P) | 0.050 " |
| Shielding material | Brass |
| Shielding | Yes |
| Side termination, characteristic | Solder flange |
| Solder eyelet hole diameter tolerance (D) | ± 0.1 mm |
| Number of solder pins per pole | 1 |
| Type of connection | SMD solder connection |
| Solder eyelet hole diameter (D) | 0.9 mm |
| Category | Cat. 5e |
| Product family | OMNIMATE Data - RJ45 modular jack |
| Pitch in mm (P) | 1.27 mm |
| Protection degree | IP20 |
| Plugging cycles | 750 |
| Wiring | 8-core |
| Outgoing elbow | 90° |
| Shield surface | nickel-plated |
| Shield tabs | 6 tabs |
| Performance-Category | Cat. 5e |
| Soldering process | Reflow soldering, Manual soldering |
| Latch option | top |
| Solder pin dimensions | Octagonal |
| Coplanarity: | 100 µm |
| Solder pin length tolerance | Lower tolerance with prefix (reveals minimum) -0,15 |
| | Upper tolerance with prefix (reveals maximum) +0,15 |
| | Tolerance, unit mm |
| Solder pin length tolerance | +0,15 / -0,15 mm |
| Tolerance of solder pin position | ± 0.1 mm |

Electrical properties

| | | | |
|---------------------------------------|-----------|--|-----------|
| Dielectric strength, contact / shield | 1500 V DC | Dielectric strength, contact / contact | 1000 V DC |
| Volume resistance | <25 mΩ | Insulation resistance | ≥ 500 MΩ |

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| | | | |
|-----------------|----------------------------|---------------|-------|
| Nominal voltage | 125 V | Rated current | 1.5 A |
| PoE / PoE+ | conforming to IEEE 802.3at | | |

Standards

| | |
|--------------------|----------------|
| Connector standard | IEC 60603-7-51 |
|--------------------|----------------|

Material data

| | | | |
|----------------------------------|-------------------|---------------------------------|----------------------------|
| Insulating material | PA 9T | Colour | black |
| Colour chart (similar) | RAL 9011 | Insulating material group | II |
| Comparative Tracking Index (CTI) | ≥ 500 | Insulation resistance | ≥ 500 MΩ |
| Moisture Level (MSL) | 1 | UL 94 flammability rating | V-0 |
| Contact base material | Phosphorus bronze | Contact material | Cu-alloy |
| Contact surface | Gold over nickel | Layer structure of plug contact | 30...80 μ" Ni / ≥ 30 μ" Au |
| Storage temperature, min. | -40 °C | Storage temperature, max. | 85 °C |
| Operating temperature, min. | -40 °C | Operating temperature, max. | 85 °C |

Packing

| | | | |
|--------------------------|-----------|--------------------|-------------------|
| Packaging | Tape | VPE length | 330.00 mm |
| VPE width | 330.00 mm | VPE height | 48.00 mm |
| Tape reel diameter Ø (A) | 330 mm | Surface resistance | Rs = 109 - 1012 Ω |

Important note

Notes

Classifications

| | | | |
|-------------|-------------|-------------|-------------|
| ETIM 8.0 | EC002637 | ETIM 9.0 | EC002637 |
| ETIM 10.0 | EC002637 | ECLASS 14.0 | 27-46-02-01 |
| ECLASS 15.0 | 27-46-02-01 | | |

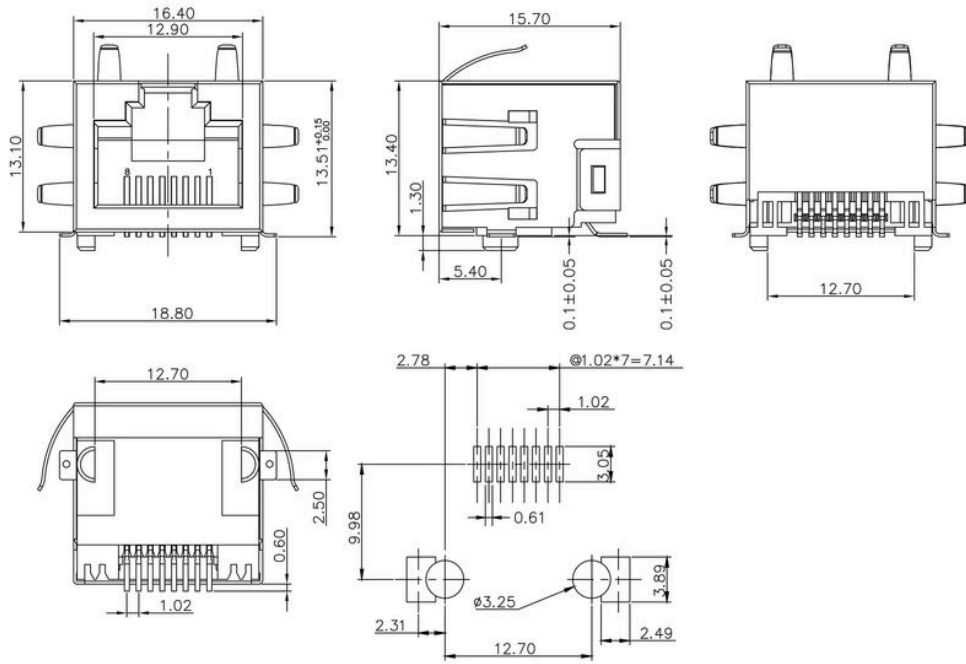
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Drawings

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Dimensional drawing



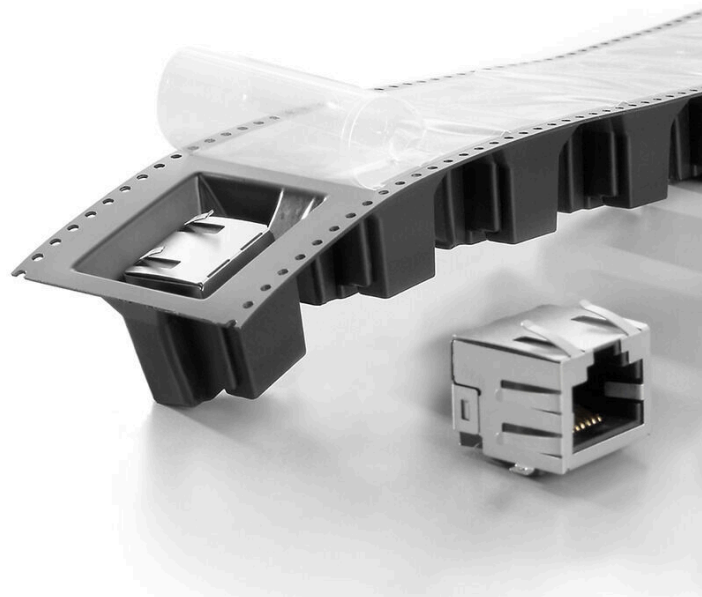
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Product benefits



Process-optimised packaging Tape-on-reel or tray

| Code | Meaning | Code | Meaning |
|-------|-------------------------------|-------|---------------------------|
| RJ45 | Standard | TY | Tray |
| G1 | Category 5 | RL | Reel |
| R | Through Hole Reflow | Y/G | Yellow/Green |
| 1 | 1 Port | G/Y | Green/Yellow |
| U | Unshielded | GY/GY | Green-Yellow/Green-Yellow |
| 3.2 | 3.2 mm Solder Pin length | O/G | Orange/Green |
| E | EMI tabs | R/O | Red/Orange |
| 4 | 4 Contact surface thickness | ... | ... |
| GY/GY | Green-Yellow/Green-Yellow LED | N | without LED |
| TY | Tray | | |

| Code | Meaning | Code | Meaning |
|----------------------------------|------------------------|--|---------|
| RJ45G1R1U3.2E4GY/GYTY | RJ45G1R1U3.2E4GY/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 | |
| | O/G | Orange/Green | |
| | R/O | Red/Orange | |
| | ... | ... (further combinations possible) | |
| | N | without LED | |
| Contact surface thickness | 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 | |
| | | Soldering process: Reflow soldering | |
| | | Through Hole Technology - THT | |
| | | Soldering process: Wave | |
| 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 | 10/100 Mbit with POE | |
| | MP+ | 10/100 Mbit with POE+ | |

Legend