

RJ45C5 T1V 3.2N4G/Y TY**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 | PCB plug-in connector, RJ45 jacks, Cat. 5 , THT solder connection, 180°, Shield tabs: none, 30...80 μm Ni / $\geq 30 \mu\text{m}$ Au , LED: Yes, green, yellow, Number of poles: 12, Tray (manual assembly) |
| Order No. | 2562960000 |
| Type | RJ45C5 T1V 3.2N4G/Y TY |
| GTIN (EAN) | 4050118571981 |
| Qty. | 120 pc(s). |
| Packaging | Tray (manual assembly) |

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Technical data

Dimensions and weights

| | | | |
|--------------------------|-----------|-----------------|------------|
| Depth | 16.7 mm | Depth (inches) | 0.657 inch |
| Height | 20 mm | Height (inches) | 0.787 inch |
| Height of lowest version | 16.5 mm | Width | 16 mm |
| Width (inches) | 0.63 inch | Net weight | 8.067 g |

System specifications

| | | | |
|---|-----------|---------------------------------|-----------------------------------|
| Category | Cat. 5 | Colour of left LED | green |
| Colour of right LED | yellow | Forward current | 20 mA |
| Forward voltage, max. | 2.6 V | Forward voltage, min. | 1.8 V |
| LED | Yes | Mounting onto the PCB | THT solder connection |
| Number of poles | 12 | Number of solder pins per pole | 1 |
| Outgoing elbow | 180° | Performance-Category | Cat. 5 |
| Pitch in inches (P) | 0.05 " | Pitch in mm (P) | 1.27 mm |
| Plugging cycles | 750 | Product family | OMNIMATE Data - RJ45 modular jack |
| Protection degree | IP20 | Shield surface | nickel-plated |
| Shield tabs | none | Shielding | Yes |
| Shielding material | Brass | Solder eyelet hole diameter (D) | 0.9 mm |
| Solder eyelet hole diameter tolerance (D) | ± 0.1 mm | Solder pin dimensions | Octagonal |
| Solder pin length (l) | 3.2 mm | Soldering process | Manual soldering, Wave soldering |
| Tolerance of solder pin position | ± 0.15 mm | Type of connection | Solder connection |
| Wiring | 8-core | | |

Electrical properties

| | | | |
|--|-----------|---------------------------------------|----------------------------|
| Dielectric strength, contact / contact | 1000 V DC | Dielectric strength, contact / shield | 1500 V DC |
| Insulation strength | ≥ 500 MΩ | PoE / PoE+ | conforming to IEEE 802.3at |
| Rated current | 1.5 A | Rated voltage | 125 V |
| Volume resistance | <25 mΩ | | |

Standards

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

Material data

| | | | |
|----------------------------------|----------------------------|-----------------------------|-------------------|
| Insulating material | PA 66 | Colour | black |
| Colour chart (similar) | RAL 9011 | Insulating material group | II |
| Comparative Tracking Index (CTI) | ≥ 500 | Insulation strength | ≥ 500 MΩ |
| 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 | Tray (manual assembly) | VPE length | 317 mm |
| VPE width | 192 mm | VPE height | 68 mm |

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www.weidmueller.com**Technical data****Classifications**

| | | | |
|-------------|-------------|-------------|-------------|
| ETIM 6.0 | EC002637 | ETIM 7.0 | EC002637 |
| ETIM 8.0 | EC002637 | ETIM 9.0 | EC002637 |
| ECLASS 9.0 | 27-44-04-02 | ECLASS 9.1 | 27-44-04-02 |
| ECLASS 10.0 | 27-44-04-02 | ECLASS 11.0 | 27-46-02-01 |
| ECLASS 12.0 | 27-46-02-01 | ECLASS 13.0 | 27-46-02-01 |

Environmental Product Compliance

REACH SVHC /

Approvals

ROHS Conform

Downloads

| | |
|---|---|
| Approval/Certificate/Document of Conformity | Certificate of Compliance |
| Engineering Data | CAD data – STEP |
| Catalogues | Catalogues in PDF-format |

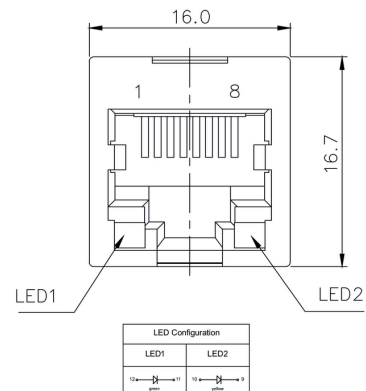
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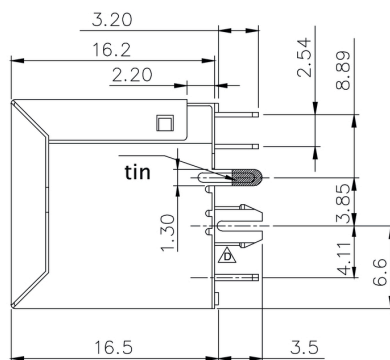
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Drawings

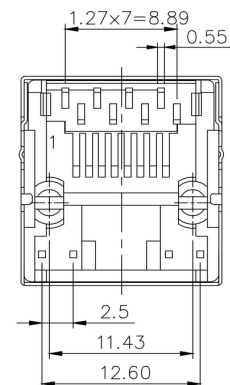
Dimensioned drawing



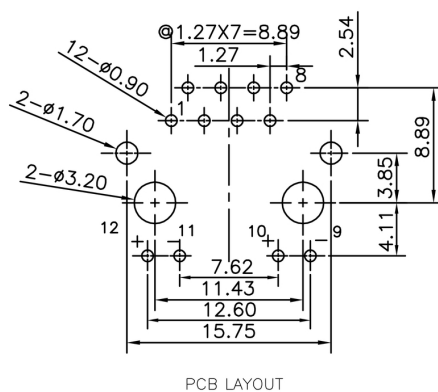
Dimensioned drawing



Dimensioned drawing



PCB design



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Drawings

| RJ45 | G1 | R | 1 | U | 3.2 | E | 4 | GY/GY | TY | RJ45G1 R1U 3.2E4GY/GY TY |
|------|----|---|---|---|-----|---|---|-------|----|--|
| | | | | | | | | | | |
| | | | | | | | | | | Packaging |
| | | | | | | | | | | TY |
| | | | | | | | | | | Tray in box (manual assembly) |
| | | | | | | | | | | 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 |
| | | | | | | | | | | Soldering process: Wave or Reflow soldering |
| | | | | | | | | | | S |
| | | | | | | | | | | Surface Mount Technology - SMT |
| | | | | | | | | | | Soldering process: Reflow soldering |
| | | | | | | | | | | T |
| | | | | | | | | | | 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

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.