

RJ45C5 R1U 1.7N4G/Y 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 μm) 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, THT/THR solder connection, 90°, Latch option: top, LED: Yes, green, yellow, Number of poles: 8, Tape |
| Order No. | 2626090000 |
| Type | RJ45C5 R1U 1.7N4G/Y RL |
| GTIN (EAN) | 4050118630183 |
| Qty. | 240 pc(s). |
| Packaging | Tape |

RJ45C5 R1U 1.7N4G/Y RL

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Technical data

Dimensions and weights

| | | | |
|--------------------------|------------|-----------------|------------|
| Depth | 15.7 mm | Depth (inches) | 0.618 inch |
| Height | 13.1 mm | Height (inches) | 0.516 inch |
| Height of lowest version | 16.5 mm | Width | 16.4 mm |
| Width (inches) | 0.646 inch | Net weight | 8.408 g |

System specifications

| | | | |
|----------------------------------|----------|-----------------------|--|
| 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 |
| Latch option | top | Mounting onto the PCB | THT/THR solder connection |
| Number of poles | 8 | Outgoing elbow | 90° |
| Pitch in inches (P) | 0.04 " | Pitch in mm (P) | 1.02 mm |
| Plugging cycles | 750 | Product family | OMNIMATE Data - RJ45 modular jack |
| Protection degree | IP20 | Shield surface | nickel-plated |
| Shielding | Yes | Solder pin dimensions | Octagonal |
| Solder pin length (l) | 1.7 mm | Soldering process | Reflow soldering, Manual soldering, Wave soldering |
| Tolerance of solder pin position | ± 0.1 mm | Type of connection | Solder connection |

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 |

Material data

| | | | |
|-----------------------------|----------|-----------------------------|-----------------------|
| Insulating material | PA 9T | Colour | black |
| Colour chart (similar) | RAL 9011 | Insulating material group | II |
| Insulation strength | ≥ 500 MΩ | Moisture Level (MSL) | 1 |
| UL 94 flammability rating | V-0 | Contact base material | Phosphor bronze alloy |
| Contact material | Cu-alloy | Contact surface | Gold over nickel |
| 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 | 359 mm |
| VPE width | 354 mm | VPE height | 128 mm |

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 |

Approvals

| | |
|------|---------|
| ROHS | Conform |
|------|---------|

RJ45C5 R1U 1.7N4G/Y RL

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Technical data

Downloads

Approval/Certificate/Document of Con-
formity

[Certificate of Compliance](#)

Catalogues

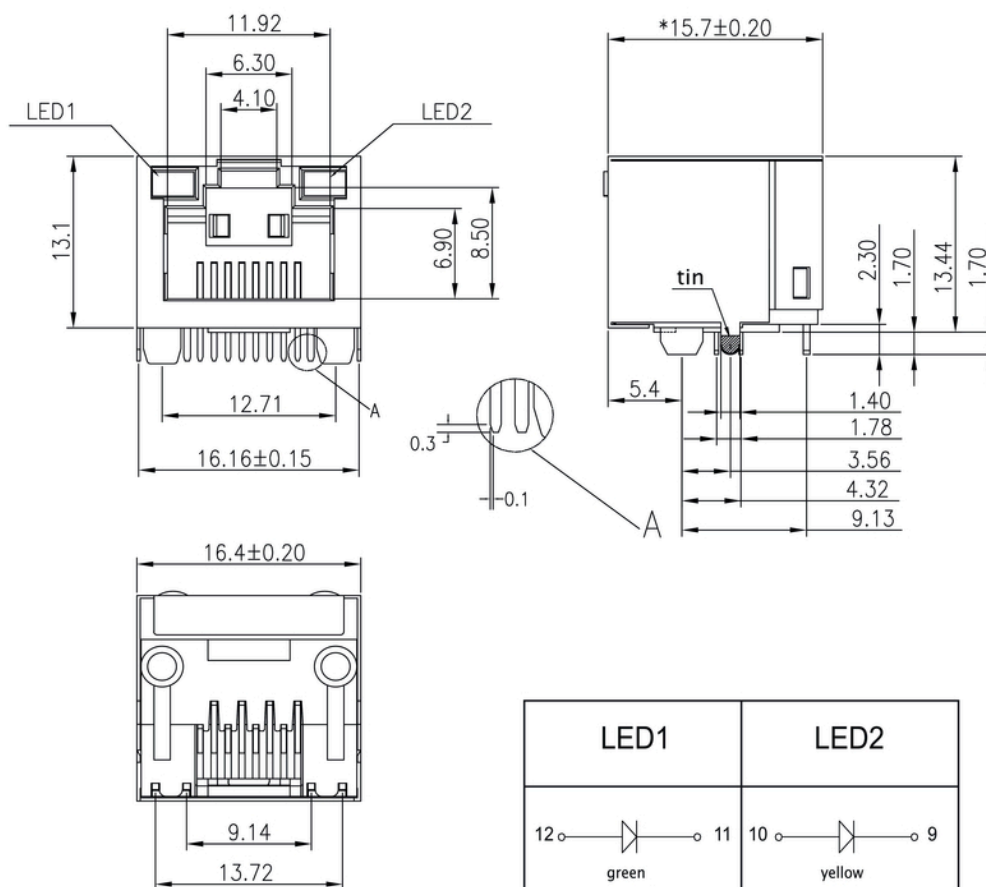
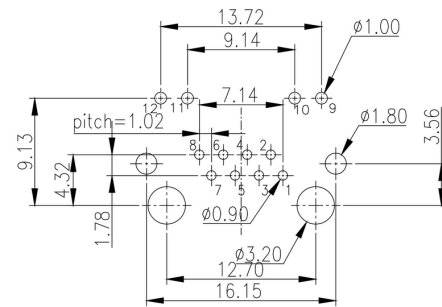
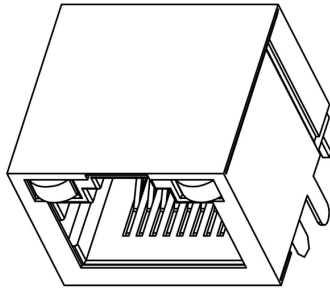
[Catalogues in PDF-format](#)

RJ45C5 R1U 1.7N4G/Y RL

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany

www.weidmueller.com

Drawings



RJ45C5 R1U 1.7N4G/Y RL

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

Drawings

| | | | | | | | | | | |
|------|----|---|---|---|-----|---|---|-------|----|--|
| RJ45 | G1 | R | 1 | U | 3.2 | E | 4 | GY/GY | TY | RJ45G1 R1U 3.2E4GY/GY TY |
| | | | | | | | | | | |
| | | | | | | | | | | Packaging |
| | | | | | | | | | | TY |
| | | | | | | | | | | RL |
| | | | | | | | | | | 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

Creation date May 1, 2024 7:57:22 PM CEST

Catalogue status 20.04.2024 / We reserve the right to make technical changes.

Recommended wave soldering profiles

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 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.

We reserve the right to make technical changes.

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.