

OMNIMATE Data - RJ45 jacks RJ45C5 T1U 2.8E4G/Y TY

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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 3 mm stand-off ensures a perfect soldering result

General ordering data

Type	RJ45C5 T1U 2.8E4G/Y TY
Order No.	2562880000
Version	PCB plug-in connector, RJ45 jacks, Cat. 5, THT solder connection, 90°, Latch option: top, Shield tabs: 6 tabs, 30-80 μm Ni / 30- μm Au, LED: Yes, green, yellow, No. of poles: 12, Tray (manual assembly)
GTIN (EAN)	4050118571905
Qty.	140 pc(s).
Packaging	Tray (manual assembly)

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Technical data

Dimensions and weights

Width	16.4 mm	Width (inches)	0.646 inch
Height	16.74 mm	Height (inches)	0.659 inch
Height of lowest version	13.44 mm	Depth	15.7 mm
Depth (inches)	0.618 inch	Net weight	6.186 g

Temperatures

Operating temperature, max.	85 °C	Operating temperature, min.	-40 °C
Storage temperature, max.	85 °C	Storage temperature, min.	-40 °C

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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System specifications

Category	Cat. 5	Colour of left LED	green
Colour of right LED	yellow	LED	Yes
Latch option	top	Mounting onto the PCB	THT solder connection
No. of poles	12	Number of solder pins per pole	1
Outgoing elbow	90°	Pitch in inches (P)	0.05 inch
Pitch in mm (P)	1.27 mm	Plugging cycles	≥ 1500
Product family	OMNIMATE Data - RJ45 jacks	Protection degree	IP20
Shield surface	nickel-plated	Shield tabs	6 tabs
Shielding	Yes	Shielding material	Brass
Solder eyelet hole diameter (D)	0.9 mm	Solder eyelet hole diameter tolerance (D)	± 0.1 mm
Solder pin length (l)	2.75 mm	Solder pin length tolerance	+0.2 / -0.2 mm
Type of connection	Socket connector	Wiring	8-core

Electrical properties

Dielectric strength, contact / contact	1000 V AC	Insulation strength	1000 MΩ at 500 V DC
Rated current	1.5 A	Rated voltage	125 V AC

Material data

Insulating material	PA 66	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	II
CTI	≥ 500	Insulation strength	1000 MΩ at 500 V DC
UL 94 flammability rating	V-0	Contact base material	Phosphorus bronze
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	0 m
VPE width	0 m	VPE height	0 m

Classifications

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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Technical data

Approvals

Approvals



ROHS

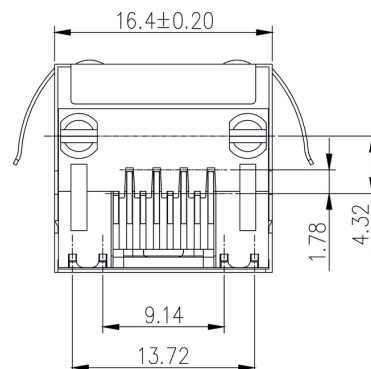
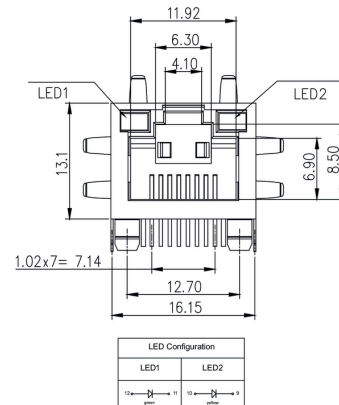
Conform

Downloads

Engineering Data

[STEP](#)

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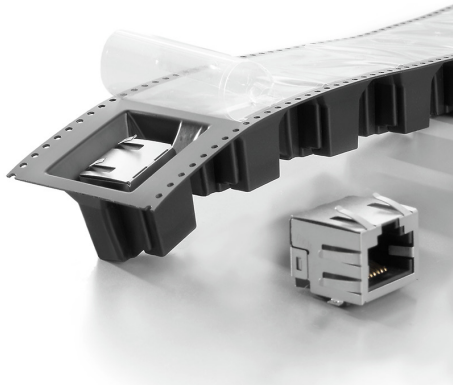
PCB LAYOUT

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Drawings

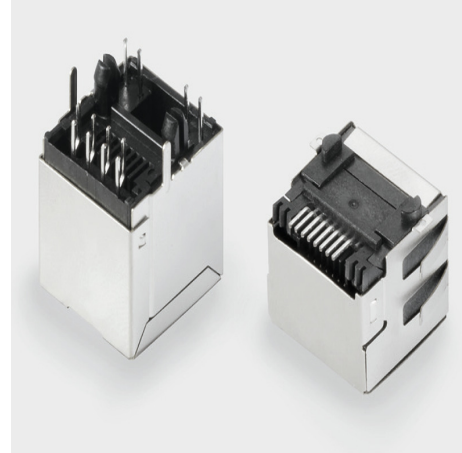
Product benefits



Process-optimised packaging
Tape-on-reel or tray

Product benefits

Product benefits



Trouble-free assembly
Short, chamfered solder pins



Suitable for all soldering processes
SMT, THT or THR

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Drawings

Dimensioned drawing

Legend

RJ45	G1	R1	U1	U2	E4	GY/GY	TY
						Packaging	TY RL
						LED	Y/G G/Y GY/GY O/G R/O ... N
						Contact surface thickness	N
						EMI tabs (ground fingers)	E N
						Solder Pin length	3.2 1.6 D
						Direction, latch style	U D V Y
						Number of Ports	1 12; 14; ... 21; 41; ...
						Assembly on PCB	R S T
						Performance Category	C5 C6 C6A C5e M G1 G10 U MP MP+
							Ty in box (manual assembly) Tape on Reel (automated assembly) Yellow/Green Green/Yellow (standard) Green-Yellow/Green-Yellow Orange-Green Red/Orange ...(further combinations possible) without LED 1 = 3µ", 2 = 6µ", 3 = 15µ", 4 = 30µ", 5 = 50µ" E = with EMI tabs N = without EMI tabs 3.2 mm 1.6 mm SMD Horizontal (90°, side entry), latch up Horizontal (90°, side entry), latch down Vertical (180°, top entry) Diagonal (45°), latch up 1 Port multi ports side by side, Multiport multi ports about each other, Multilevel Through Hole Reflow - THR Soldering process: Wave or Reflow soldering Surface Mount Technology - SMT Soldering process: Reflow soldering Through Hole Technology - THT Soldering process: Wave Category 5 Category 6 Category 6A Category 5e 10/100 Mbit 10/100/1000 Mbit 10 Gbit Unshielded 10/100 Mbit with POE 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.