

RJ45C6 T1U 2.7N4N 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. 6 , THT solder connection, 90°, Latch option: top, Shield tabs: none, 30...80 μm Ni / $\geq 30 \mu\text{m}$ Au , LED: No, Number of poles: 8, Tray
Order No.	1433910000
Type	RJ45C6 T1U 2.7N4N TY
GTIN (EAN)	4050118238679
Qty.	160 pc(s).
Packaging	Tray

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Technical data

Dimensions and weights

Depth	16.5 mm	Depth (inches)	0.65 inch
Height	20 mm	Height (inches)	0.787 inch
Height of lowest version	16.7 mm	Net weight	3.044 g
Width	16 mm	Width (inches)	0.63 inch

System specifications

Category	Cat. 6	LED	No
Latch option	top	Mounting onto the PCB	THT solder connection
Number of poles	8	Number of solder pins per pole	1
Outgoing elbow	90°	Performance-Category	Cat. 6
Pitch in inches (P)	0.05 inch	Pitch in mm (P)	1.27 mm
Product family	OMNIMATE Data - RJ45 modular jack	Protection degree	IP20
Shield surface	nickel-plated	Shield tabs	none
Shielding	Yes	Shielding material	Copper alloy
Solder eyelet hole diameter (D)	0.9 mm	Solder eyelet hole diameter tolerance (D)	± 0.1 mm
Solder pin dimensions	0.40 x 0.30 mm	Solder pin length (l)	2.7 mm
Soldering process	Manual soldering, Wave soldering	Type of connection	Socket connector
Wiring	8-core		

Electrical properties

Dielectric strength, contact / contact	≥ 1000 V DC	Rated current	1.5 A
Rated voltage	125 V		

Standards

Connector standard	IEC 60603-7-51
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Material data

Insulating material	PA 66	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	II
Comparative Tracking Index (CTI)	≥ 500	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	VPE length	25 mm
VPE width	190 mm	VPE height	285 mm

Classifications

ETIM 6.0	EC002637	ETIM 7.0	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

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Approvals



ROHS	Conform
UL File Number Search	E471884

Downloads

Engineering Data	STEP
Product Change Notification	PCN PCN
User Documentation	MAN IE GUIDE DE MAN IE GUIDE EN

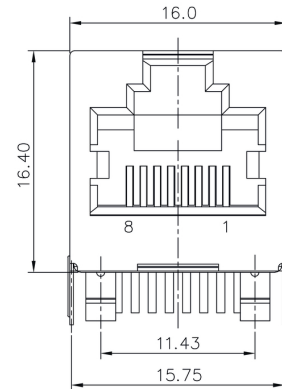
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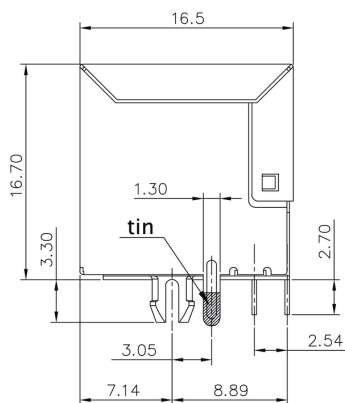
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Drawings

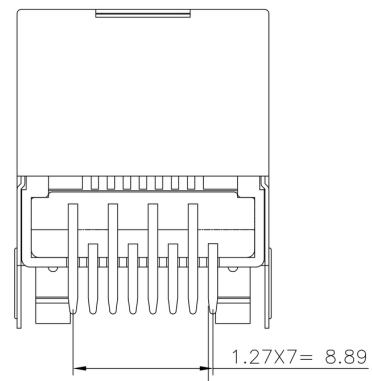
Dimensioned drawing



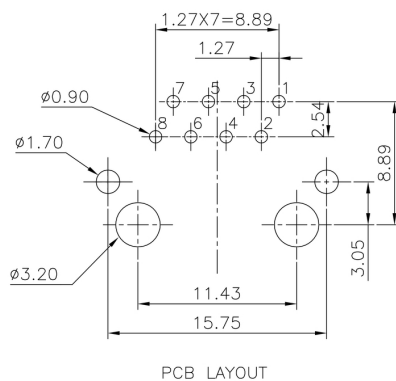
Dimensioned drawing



Dimensioned drawing



PCB design



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Drawings

RJ45	G1	R1	U1	U2	E4	GY/GY	TY	RJ45G R1U 3.2E4G/GY TY
							Packaging	TY RL
							LED	Y/G G/Y GY/GY O/G R/O ... N
							Contact surface thickness	4
							EMI tabs (ground fingers)	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+
								Tray 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+

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.