

RJ45C5 T1V 4.0N4N 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 / ≥ 30 μm Au , LED: No, Number of poles: 8, Tray (manual assembly)
Order No.	2436450000
Type	RJ45C5 T1V 4.0N4N TY
GTIN (EAN)	4050118448832
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	0.44 g

System specifications

Category	Cat. 5	LED	No
Mounting onto the PCB	THT solder connection	Number of poles	8
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)	4 mm
Soldering process	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 M Ω	PoE / PoE+	conforming to IEEE 802.3at
Rated current	1.5 A	Rated voltage	125 V
Volume resistance	<25 m Ω		

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	Insulation strength	≥ 500 M Ω
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	191 mm	VPE height	67 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
ECLASS 14.0	27-46-02-01		

Environmental Product Compliance

REACH SVHC	/
RoHS Compliance Status	Compliant without exemption

Approvals

ROHS	Conform
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Downloads

Approval/Certificate/Document of Conformity	Certificate of Compliance
Engineering Data	CAD data – STEP
Product Change Notification	PCN PCN
User Documentation	MAN IE GUIDE DE MAN IE GUIDE EN
Catalogues	Catalogues in PDF-format

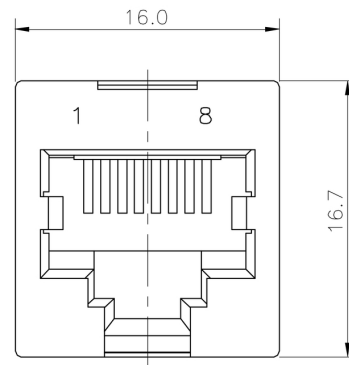
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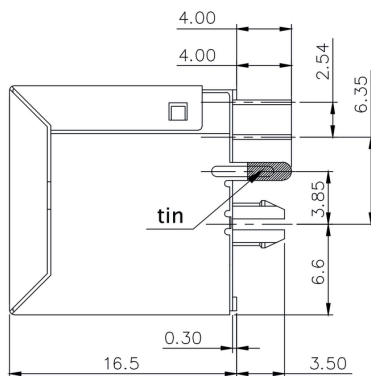
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Drawings

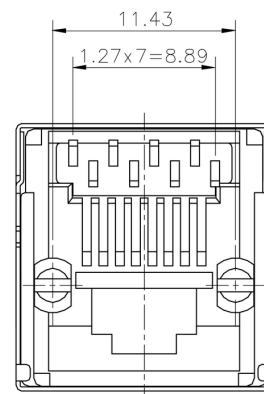
Dimensioned drawing



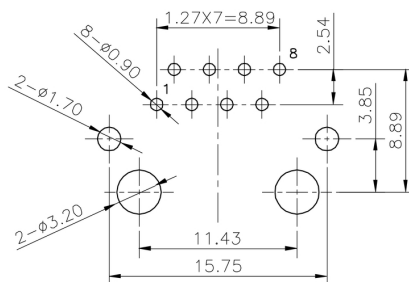
Dimensioned drawing



Dimensioned drawing



PCB design



PCB LAYOUT

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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 - TH-R
										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

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Catalogue status 14.09.2024 / We reserve the right to make technical changes.

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.

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