

OMNIMATE Data - RJ45 jacks RJ45C5 T1V 3.2N4N TY

Weidmüller Interface GmbH & Co. KG
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Product range covers standing and flat designs, as well as versions with the latching hook at the top and bottom.

- THT, THR or SMD soldering processes
- Wide range of different design types, also with integrated LEDs and shield contact tabs
- Packed either in a tray (TY) or on a roll (tape-on-reel, RL)
- Extended temperature range of -40 °C to $+85\text{ °C}$
- Reinforced gold layer for improved corrosion protection
- Transmission rates of up to 1 Gbit/s

General ordering data

Type	RJ45C5 T1V 3.2N4N TY
Order No.	1433810000
Version	PCB plug-in connector, RJ45 jacks, THT solder connection, 1.27 mm, No. of poles: 8, 180°, Solder pin length (l): 3.2 mm, Gold over nickel, Black, Tray; $R_s = 10^9 - 10^{12}\ \Omega$
GTIN (EAN)	4050118238563
Qty.	120 pc(s).
Packaging	Tray; $R_s = 10^9 - 10^{12}\ \Omega$

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Technical data

Dimensions and weights

Net weight 2.983 g

Temperatures

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

System specifications

Category	Cat. 5	Colour of left LED	No
Colour of right LED	No	LED	No
Mounting onto the PCB	THT solder connection	No. of poles	8
Number of solder pins per pole	1	Outgoing elbow	180°
Packaging	Tray; Rs = 10 ⁹ - 10 ¹² Ω	Pitch in inches (P)	0.05 inch
Pitch in mm (P)	1.27 mm	Plugging cycles	750
Product family	OMNIMATE Data - RJ45 jacks	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)	3.2 mm
Type of connection	Socket	Wiring	8-core

Electrical properties

Dielectric strength, contact / contact	≥ 1000 V DC	Insulation resistance	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 resistance	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

Classifications

ETIM 6.0	EC002637	eClass 6.2	27-25-05-04
eClass 7.1	27-25-05-04	eClass 8.1	19-17-01-25
eClass 9.0	19-17-01-25		

Approvals

Approvals



ROHS Conform

Data sheet**OMNIMATE Data - RJ45 jacks
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Technical data**Downloads**

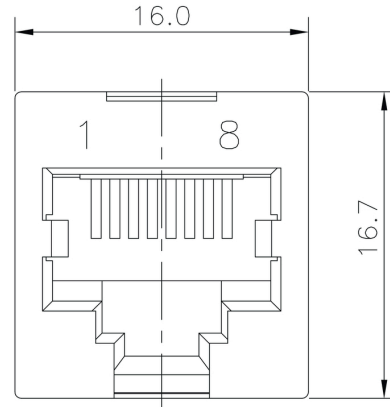
Brochure/Catalogue	CAT 9 IETH 15/16 EN MB FREECONTACT EN FL FIELDWIRING EN PI PROFINET CABLING EN
User Documentation	MAN IE GUIDE DE MAN IE GUIDE EN

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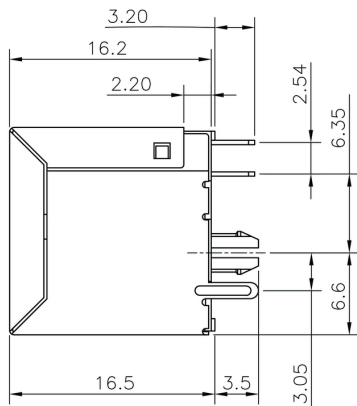
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Drawings

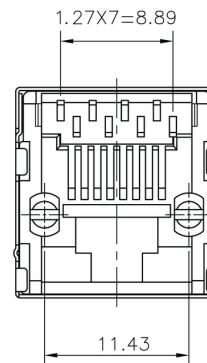
Dimensioned drawing



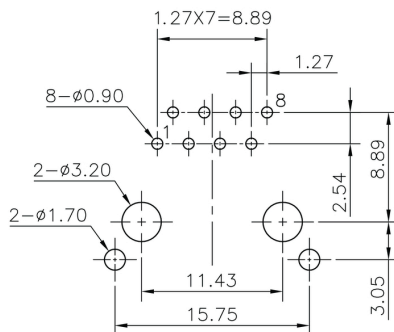
Dimensioned drawing



Dimensioned drawing



PCB design



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Drawings

Legend

Legend	Code	Description
RJ45	G1	RJ45G1
R	R1	R1
U	U3.2	U3.2
E	E4	E4
GY/GY	GY/GY	GY/GY
TY	TY	TY
RJ45G1 R1U 3.2E4GY/GY TY		
Packaging	TY	Tray in box (manual assembly)
	RL	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
	S	Soldering process: Wave or Reflow soldering
	S	Surface Mount Technology - SMT
	T	Soldering process: Reflow soldering
	T	Through Hole Technology - THT
	T	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+

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.