

OMNIMATE Data - RJ45 jacks RJ45C5 T1U 2.8N4N 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 2.8N4N TY
Order No.	1455240000
Version	PCB plug-in connector, RJ45 jacks, Cat. 5, THT solder connection, 90°, Latch option: top, Shield tabs: none, 30-80 μm Ni / 30- μm Au, LED: No, No. of poles: 8, Tray
GTIN (EAN)	4050118261356
Qty.	140 pc(s).
Packaging	Tray

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Technical data

Dimensions and weights

Width	16.41 mm	Width (inches)	0.646 inch
Height	15.86 mm	Height (inches)	0.624 inch
Height of lowest version	13.11 mm	Depth	15.71 mm
Depth (inches)	0.619 inch	Net weight	2.436 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	LED	No
Latch option	top	Mounting onto the PCB	THT solder connection
No. of poles	8	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	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 connector	Wiring	8-core

Electrical properties

Dielectric strength, contact / contact	≥ 1000 V DC	Insulation strength	> 500 MΩ
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	> 500 MΩ
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	20 mm
VPE width	180 mm	VPE height	300 mm

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	27-44-04-02	eClass 9.1	27-44-04-02

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Technical data

Approvals

Approvals



ROHS

Conform

Downloads

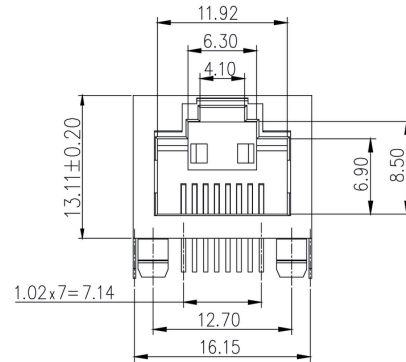
Brochure/Catalogue	CAT 9 IETH 15/16 EN MB FREECONTACT EN FL FIELDWIRING EN PI PROFINET CABLING EN
Engineering Data	STEP
User Documentation	MAN IE GUIDE DE MAN IE GUIDE EN

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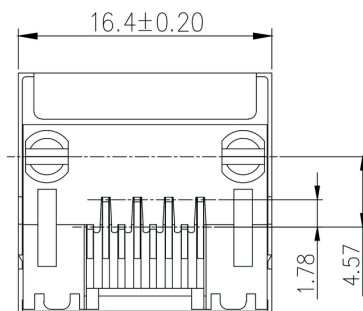
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Drawings

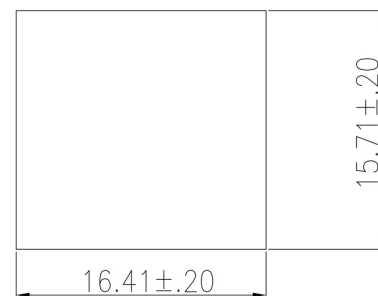
Dimensioned drawing



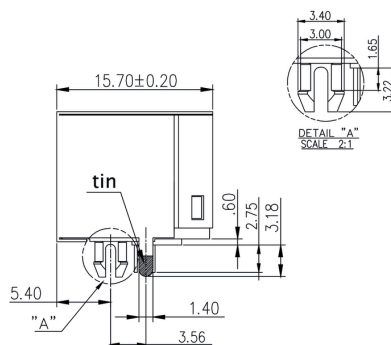
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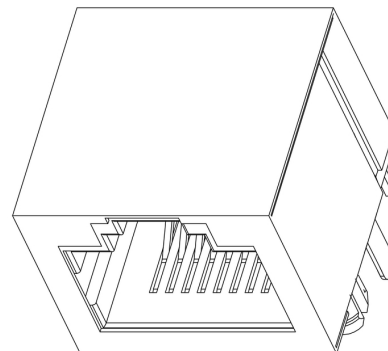
Dimensioned drawing



Dimensioned drawing



Drawing

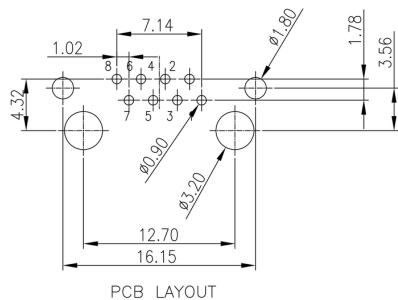


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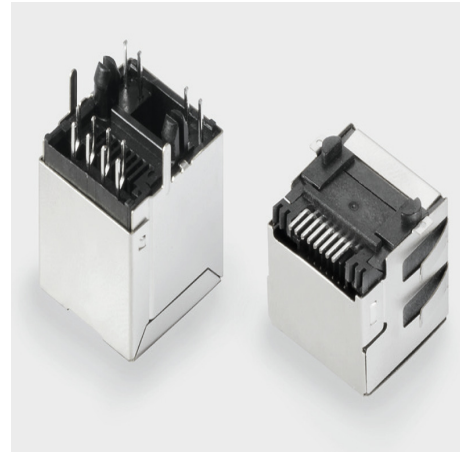
PCB design



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

Legend

RJ45	G1	R	1	U	3.2	E	4	GY/GY	TY	RJ45G1 R1U 3.2E4GY/GY TY
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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.