

**RJ45M T1D 3.2E4N TY****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)

RJ45 transmitter sockets (magnetics) for gigabit applications (1000 base-T) with integrated compensation actively counteracts inductive and capacitive couplings and saves space on the PCB.

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
- Transmission rates of up to 1 Gbps
- 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  $\geq 1500$  V AC RMS (2250 V AC peak value) according to IEEE 802.3
- Dielectric strength  $\geq 1500$  V AC (peak value) or  $\geq 1500$  V DC according to IEC 60603
- Compliance with IEEE 802.3 requirements (1000Base-T, 1 Gbps, IEEE 802.3ab or 100Base-Tx, 100 Mbps, IEEE 802.3u)

Properties and advantages:

- Extended temperature range of  $-40$  °C to  $+85$  °C for maximum performance
- Reinforced gold layer ( $30\mu$ ) 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 transformer, 10/100 MBit/s , THT solder connection, 90°, Latch option: bottom, Shield tabs: 6 tabs, 30...80 $\mu$ " Ni / $\geq 30$ $\mu$ " Au , LED: No, Number of poles: 8, Tray (manual assembly)
Order No.	<a href="#">2474160000</a>
Type	RJ45M T1D 3.2E4N TY
GTIN (EAN)	4050118485943
Qty.	120 pc(s).
Packaging	Tray (manual assembly)

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## Technical data

## Dimensions and weights

Depth	21.35 mm	Depth (inches)	0.841 inch
Height	16.8 mm	Height (inches)	0.661 inch
Height of lowest version	13.5 mm	Width	15.9 mm
Width (inches)	0.626 inch	Net weight	3.242 g

## System specifications

LED	No	Latch option	bottom
Mounting onto the PCB	THT solder connection	Number of poles	8
Number of solder pins per pole	1	Outgoing elbow	90°
Performance-Category	10/100 MBit/s	Pitch in inches (P)	0.05 "
Pitch in mm (P)	1.27 mm	Plugging cycles	750
Product family	OMNIMATE Data - RJ45 transformer jack	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)	$\pm 0.1$ mm
Solder pin dimensions	Octagonal	Solder pin length (l)	3.2 mm
Soldering process	Manual soldering, Wave soldering	Tolerance of solder pin position	$\pm 0.1$ mm
Transmission rate	10/100 MBit/s	Type of connection	Solder connection
Wiring	8-core		

## Electrical properties

Dielectric strength, contact / contact	1000 V DC	Dielectric strength, contact / shield	1500 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)	$\geq 500$	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 $\mu$ " Ni / $\geq 30$ $\mu$ " 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	319 mm
VPE width	191 mm	VPE height	69 mm

## 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

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[www.weidmueller.com](http://www.weidmueller.com)**Technical data****Environmental Product Compliance**

REACH SVHC

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**Approvals**

Approvals



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E471884

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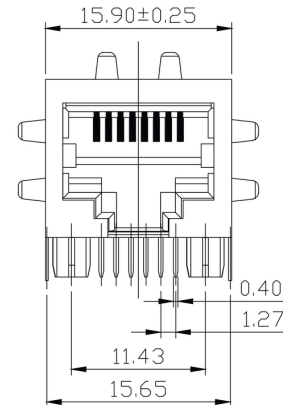
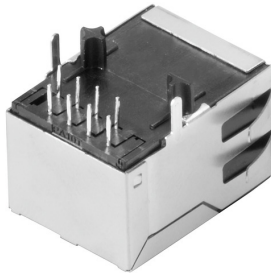
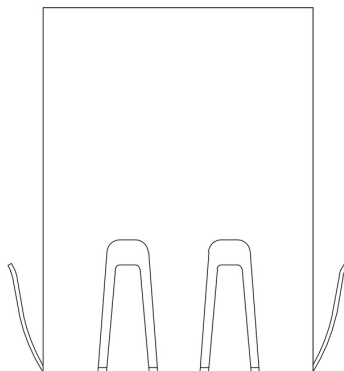
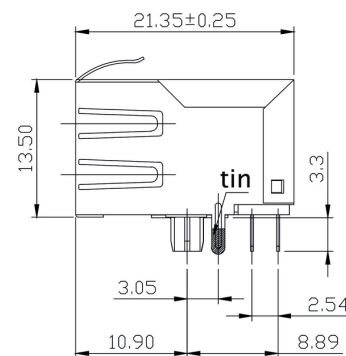
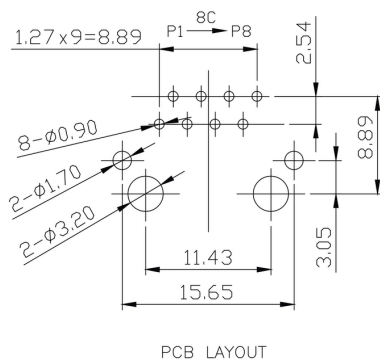
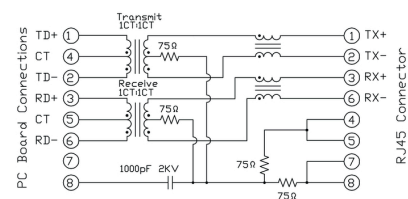
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**Drawings**
**Dimensioned drawing**

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**PCB design**

**Wiring diagram**


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RJ45	G1	R1	U3.2	E4	GY/GY	TY	RJ45G1 R1U 3.2E4GY/GY TY		
							<b>Packaging</b>	<b>TY</b> RL	Tray in box (manual assembly) Tape on Reel (automated assembly)
							<b>LED</b>	Y/G G/Y GY/GY O/O R/O ... N	Yellow/Green Green/Yellow (standard) Yellow/Green-Yellow Orange-Green Red/Orange ... (further combinations possible) without LED
							<b>Contact surface thickness</b>	4	1 = 3µ", 2 = 6µ", 3 = 15µ", 4 = 30µ", 5 = 50µ"
							<b>EMI tabs (ground fingers)</b>	E N	E = with EMI tabs N = without EMI tabs
							<b>Solder Pin length</b>	3.2 1.6 D	3.2 mm 1.6 mm SMD
							<b>Direction, latch style</b>	U D V Y	Horizontal (90°, side entry), latch up Horizontal (90°, side entry), latch down Vertical (180°, top entry) Diagonal (45°), latch up
							<b>Number of Ports</b>	1 12; 14; ... 21; 41; ...	1 Port multi ports side by side, Multiport multi ports about each other, Multilevel
							<b>Assembly on PCB</b>	R S T	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
							<b>Performance Category</b>	C5 C6 C6A C5e M G1 G10 U NP NP+	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.