Data sheet

RJ45G1 R1D 3.3E4G/Y TY

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

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 ≥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
• 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 (30µ") for improved corrosion protection
• At least 0.3mm stand-off ensures a perfect soldering result

General ordering data

Version	OMNIMATE Data - RJ45 transformer jack, PCB plug-in connector, THT/THR solder connection, 90°, bottom, 6 tabs, Yes, Plugging cycles: 750, Number of poles: 10, PA 9T, 30...80 µ" Ni / ≥ 30 µ" Au , Tray (manual assembly)
Order No.	2544510000
Type	RJ45G1 R1D 3.3E4G/Y TY
GTIN (EAN)	4050118554168
Qty.	120 items
Packaging	Tray (manual assembly)

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Technical data

Approvals

Approvals	
ROHS	Conform
UL File Number Search	UL Website
Certificate No. (cURus)	E471884

Dimensions and weights

Depth	21.35 mm	Depth (inches)	0.8405 inch
Height	16.8 mm	Height (inches)	0.6614 inch
Height of lowest version	13.5 mm	Width	15.9 mm
Width (inches)	0.626 inch	Net weight	4 g

Environmental Product Compliance

RoHS Compliance Status	Compliant without exemption
REACH SVHC	No SVHC above 0.1 wt%

System specifications

Number of poles	10	LED	Yes
Solder pin length (l)	3.3 mm	Mounting onto the PCB	THT/THR solder connection
Pitch in inches (P)	0.050 "	Shielding material	Brass
Shielding	Yes	Side termination, characteristic	Solder flange
Transmission rate	1000 Mbps	Number of solder pins per pole	1
Type of connection	Solder connection	Product family	OMNIMATE Data - RJ45 transformer jack
Pitch in mm (P)	1.27 mm	Protection degree	IP20
Plugging cycles	750	Outgoing elbow	90°
Forward current	20 mA	Forward voltage, max.	2.6 V
Shield surface	nickel-plated	Colour of right LED	yellow
Shield tabs	6 tabs	Performance-Category	1000 Mbps
Soldering process	Reflow soldering, Manual soldering, Wave soldering	Latch option	bottom
Solder pin dimensions	Octagonal	Tolerance of solder pin position	± 0.15 mm
Forward voltage, min.	1.8 V	Colour of left LED	green

Electrical properties

Dielectric strength, contact / shield	1500 V DC	Dielectric strength, contact / contact	1000 V DC
Insulation resistance	≥ 500 MΩ	Nominal voltage	125 V
Rated current	1.5 A		

Standards

Connector standard	IEC 60603-7

Material data

Insulating material	PA 9T	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	II
Comparative Tracking Index (CTI)	≥ 500	Insulation resistance	≥ 500 MΩ
Moisture Level (MSL)	1	UL 94 flammability rating	V-0

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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	315.00 mm
VPE width	193.00 mm	VPE height	69.00 mm

Important note

Notes

Classifications

ETIM 8.0	EC002637	ETIM 9.0	EC002637
ETIM 10.0	EC002637	ECLASS 14.0	27-46-02-01
ECLASS 15.0	27-46-02-01		

Data sheet

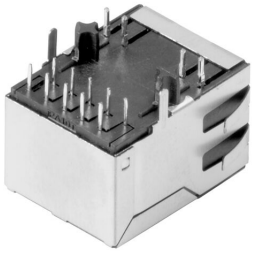
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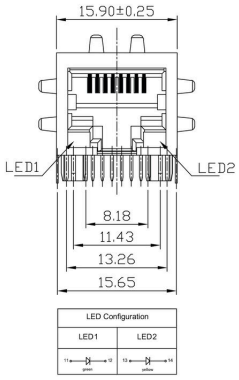
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Drawings

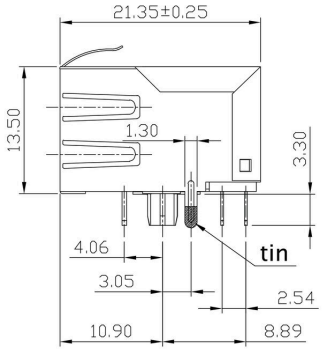
Dimensioned drawing



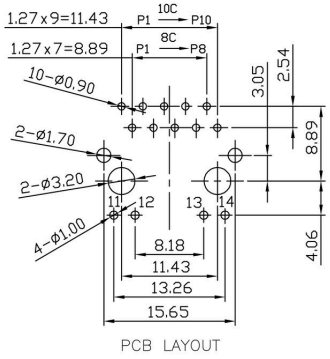
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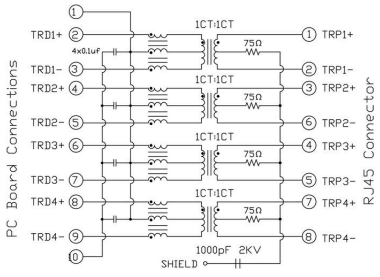
Dimensioned drawing



PCB design



Wiring diagram

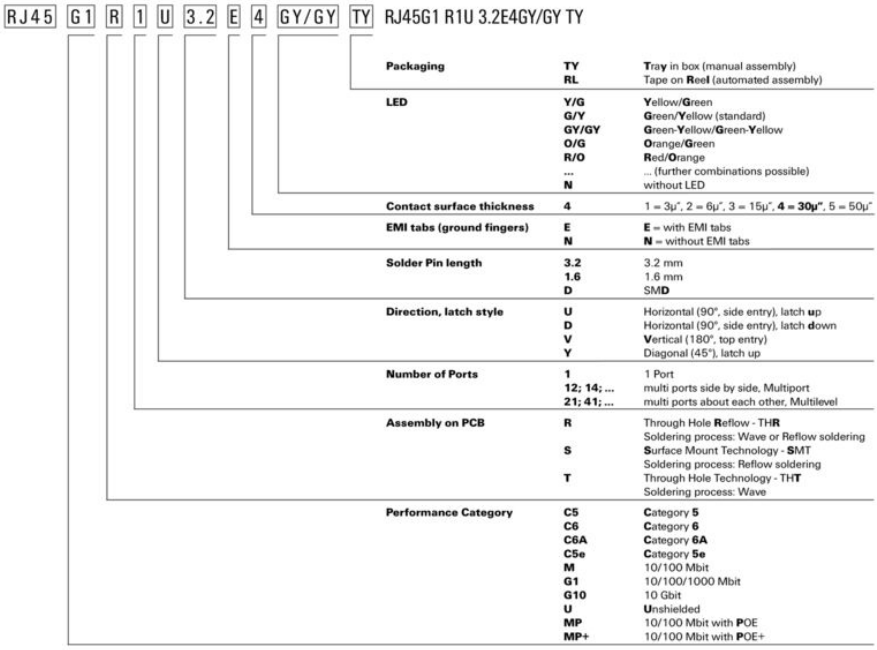


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Type codes