

RJ45G1 R12D 3.3E4G/Y TY

Weidmüller Interfaces GmbH & Co. KG

Postfach 3030

32760 Detmold

Tel. +49 5231 14-0

Fax. +49 5231 14-2083

info@weidmueller.com

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

Article - short description PCB plug-in connector, RJ45 jacks transformer, 1000 Mbps , THT/THR solder connection, 90°, Latch option: bottom, Shield tabs: 6 tabs, 30...80 μ " Ni / ≥ 30 μ " Au , LED: Yes, green, yellow, Number of poles: 10, Tray (manual assembly)

Material number [2544500000](#)

Short text for material RJ45G1 R12D 3.3E4G/Y TY

EAN 4050118554267

Qty. 80 pc(s).

Creation date November 18, 2020 1:34:26 PM CET

Catalogue status 18.11.2020 / We reserve the right to make technical changes.

RJ45G1 R12D 3.3E4G/Y TY

Weidmüller Interfaces GmbH & Co. KG

Postfach 3030

32760 Detmold

Tel. +49 5231 14-0

Fax. +49 5231 14-2083

info@weidmueller.com

www.weidmueller.com

Technical data**Dimensions and weights**

Depth	21.5 mm	Depth (inches)	0.846 inch
Height	16.9 mm	Height (inches)	0.665 inch
Height of lowest version	13.6 mm	Net weight	7 g
Width	31.2 mm	Width (inches)	1.228 inch

Environmental Product Compliance

REACH SVHC Lead 7439-92-1

System specifications

Colour of left LED	green	Colour of right LED	yellow
LED	Yes	Latch option	bottom
Mounting onto the PCB	THT/THR solder connection	Number of poles	10
Number of solder pins per pole	1	Outgoing elbow	90°
Performance-Category	1000 Mbps	Pitch in inches	0.05 inch
Pitch in mm	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
Soldering process	Manual soldering, Wave soldering	Transmission rate	1000 Mbps
Type of connection	Socket connector		

Electrical properties

Dielectric strength, contact / contact	≥ 1000 V DC	Dielectric strength, contact / shield	1500 V DC
Insulation strength	> 500 MΩ	Rated current	0,80 A
Rated voltage	30 V DC		

Material data

Insulating material	PA 9T	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	II
Comparative Tracking Index (CTI)	≥ 500	Insulation strength	> 500 MΩ
Moisture Level (MSL)	1	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 (manual assembly)	VPE length	0 m
VPE width	0 m	VPE height	0 m

Classifications

ETIM 6.0	EC002637	ETIM 7.0	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	27460201

Creation date November 18, 2020 1:34:26 PM CET

Catalogue status 18.11.2020 / We reserve the right to make technical changes.

Data sheet**RJ45G1 R12D 3.3E4G/Y TY****Weidmüller Interfaces GmbH & Co. KG**

Postfach 3030

32760 Detmold

Tel. +49 5231 14-0

Fax. +49 5231 14-2083

info@weidmueller.com**Technical data**www.weidmueller.com**Approvals**

Approvals	CURUS
ROHS	Conform
UL File Number Search	E471884

Downloads

Engineering Data	STEP
Product Change Notification	PCN PCN

RJ45G1 R12D 3.3E4G/Y TY

Weidmüller Interfaces GmbH & Co. KG

Postfach 3030

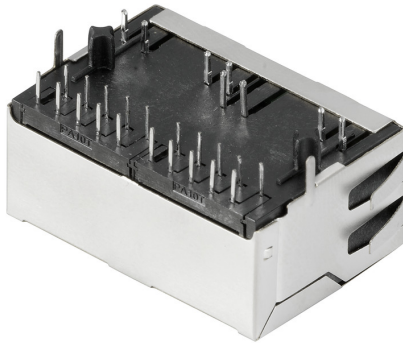
32760 Detmold

Tel. +49 5231 14-0

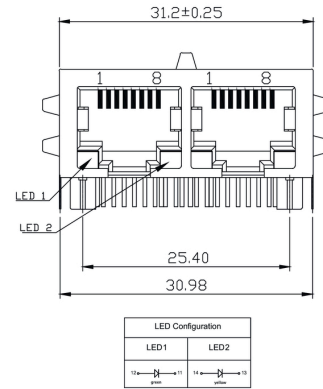
Fax. +49 5231 14-2083

Drawings

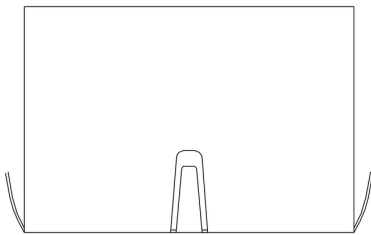
Dimensioned drawing



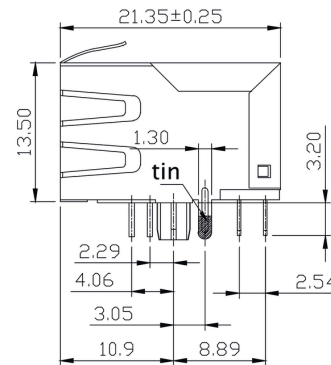
Dimensioned drawing info@weidmueller.com



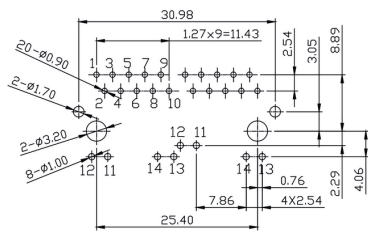
Dimensioned drawing



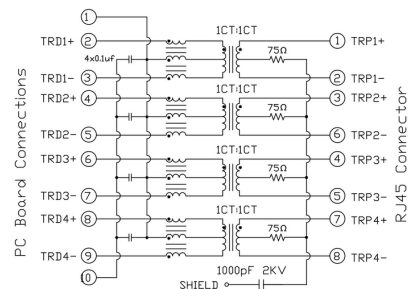
Dimensioned drawing



PCB design



Wiring diagram



RJ45G1 R12D 3.3E4G/Y TY

Weidmüller Interfaces GmbH & Co. KG

Postfach 3030

32760 Detmold

Tel. +49 5231 14-0

Fax. +49 5231 14-2083

info@weidmueller.com

ueller.com

Drawings

Characteristics

Inductance	350 µH min. @ 100 kHz, 100 mV, 8 mA DC Bias
Leakage Inductance	0.3 µH max. @ 100 kHz, 100 mV
Insertion Loss	1.1 dB max. @ (1 - 100) MHz
Return Loss	18 dB min. @ (1 - 30) MHz 16 dB min. @ (30 - 60) MHz 12 dB min. @ (60 - 80) MHz
Cross Talk	30 dB min. @ (1 - 100) MHz
Common Mode Rejection	30 dB min. @ (1 - 100) MHz

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)										
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+										

Type codes