

## RJ45MP 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  $\geq 1500$  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 ( $30\mu\text{m}$ ) 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, Yes, Plugging cycles: 750, Number of poles: 10, PA 9T, Tray (manual assembly)
Order No.	<a href="#">2661700000</a>
Type	RJ45MP R1D 3.3E4G/Y TY
GTIN (EAN)	4050118675160
Qty.	120 items
Packaging	Tray (manual assembly)

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## Technical data

## Approvals

Approvals	CURUS
ROHS	Conform
UL File Number Search	<a href="#">UL Website</a>
Certificate No. (cURus)	E471884

## Dimensions and weights

Net weight	8.12 g
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## 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	Yes
Side termination, characteristic	Solder flange	Transmission rate	100 MBit/s, POE
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
Colour of right LED	yellow	Performance-Category	100 MBit/s, POE
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	57 V
Rated current	350 mA	PoE / PoE+	conforming to IEEE 802.3af

## Standards

Connector standard	IEC 60603-7
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## Material data

Insulating material	PA 9T	Colour	black
Colour chart (similar)	RAL 9011	Insulation resistance	≥ 500 MΩ
Moisture Level (MSL)	1	UL 94 flammability rating	V-0
Contact material	Cu-alloy	Contact surface	Gold over nickel
Storage temperature, min.	-40 °C	Storage temperature, max.	85 °C
Operating temperature, min.	-40 °C	Operating temperature, max.	85 °C

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**Technical data****Packing**

Packaging	Tray (manual assembly)	VPE length	317.00 mm
VPE width	193.00 mm	VPE height	67.00 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		

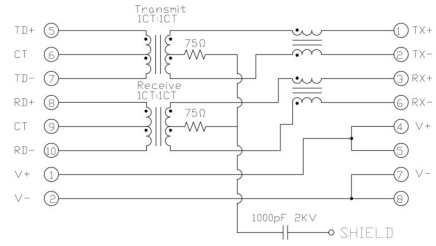
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Drawings

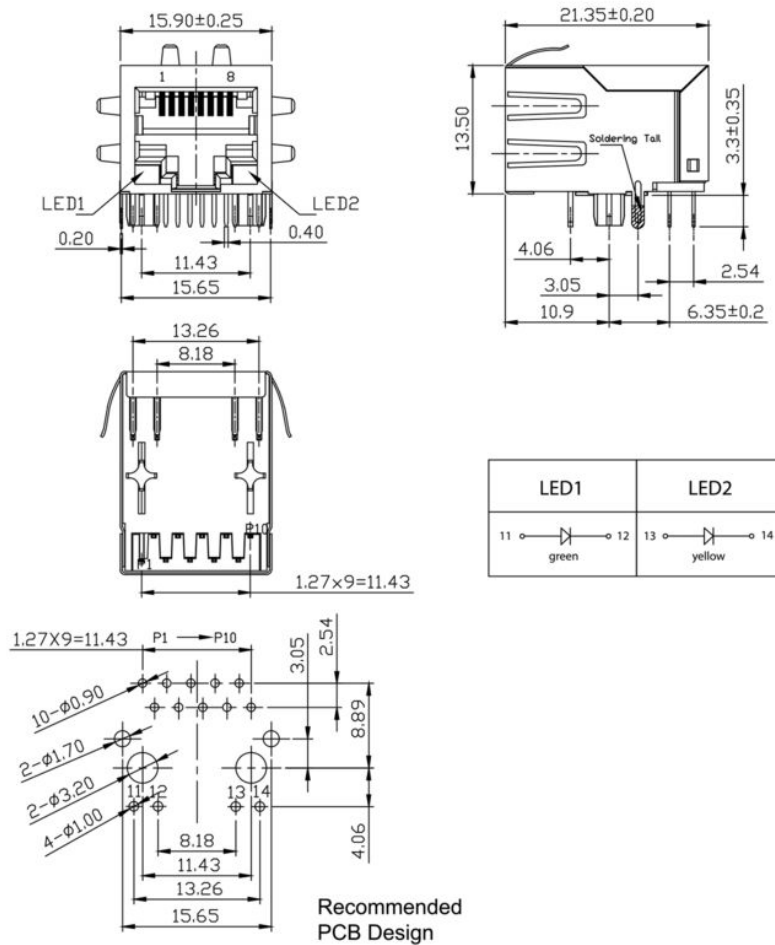
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Wiring



100 Mbit/s & PoE

Dimensional drawing



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Drawings

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Code	Value	Description
RJ45	G1	RJ45G1 R1U 3.2E4G/Y TY
R	1	Through Hole Reflow - THR
U	3.2	Solder Pin length: 3.2 mm
E	4	Contact surface thickness: 4 (1 = 3µm, 2 = 6µm, 3 = 15µm, 4 = 30µm, 5 = 50µm)
G	GY/GY	LED: Green-Yellow/Green-Yellow
TY	TY	Packaging: Tray in box (manual assembly)
	RL	Packaging: Tape on Reel (automated assembly)
	Y/G	LED: Yellow/Green
	G/Y	LED: Green/Yellow (standard)
	GY/GY	LED: Green-Yellow/Green-Yellow
	O/G	LED: Orange/Green
	R/O	LED: Red/Orange
	...	LED: ... (further combinations possible)
	N	LED: without LED
	4	Contact surface thickness: 4
	E	EMI tabs (ground fingers): E = with EMI tabs
	N	EMI tabs (ground fingers): N = without EMI tabs
	3.2	Solder Pin length: 3.2 mm
	1.6	Solder Pin length: 1.6 mm
	D	Solder Pin length: SMD
	U	Direction, latch style: Horizontal (90°, side entry), latch up
	D	Direction, latch style: Horizontal (90°, side entry), latch down
	V	Direction, latch style: Vertical (180°, top entry)
	Y	Direction, latch style: Diagonal (45°), latch up
	1	Number of Ports: 1 Port
	12; 14; ...	Number of Ports: multi ports side by side, Multiport
	21; 41; ...	Number of Ports: multi ports about each other, Multilevel
	R	Assembly on PCB: Through Hole Reflow - THR
	S	Assembly on PCB: Soldering process: Wave or Reflow soldering
	T	Assembly on PCB: Surface Mount Technology - SMT
		Assembly on PCB: Soldering process: Reflow soldering
		Assembly on PCB: Through Hole Technology - THT
		Assembly on PCB: Soldering process: Wave
	C5	Performance Category: Category 5
	C6	Performance Category: Category 6
	C6A	Performance Category: Category 6A
	C6e	Performance Category: Category 6e
	M	Performance Category: 10/100 Mbit
	G1	Performance Category: 10/100/1000 Mbit
	G10	Performance Category: 10 Gbit
	U	Performance Category: Unshielded
	MP	Performance Category: 10/100 Mbit with POE
	MP+	Performance Category: 10/100 Mbit with POE+

Type codes

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## Counterpart

### RJ45 crimp

RJ45 crimp plug-in connector according to IEC 60603-7-51 for wire outer diameters up to 1.05 mm

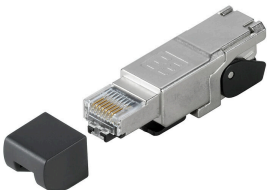


### General ordering data

Type	IE-P	Version
Order No.	<a href="#">8813100000</a>	RJ45 plug-in connector, without kink protection; 5.5 - 7.1 mm,
GTIN (EAN)	4032248512850	Cat.6A / Class EA (ISO/IEC 11801 2010), IP20
Qty.	100 ST	
Type	IE-P63	Version
Order No.	<a href="#">8813110000</a>	RJ45 plug-in connector, with kink protection; 5.5 - 6.2 mm, Cat.6A /
GTIN (EAN)	4032248512867	Class EA (ISO/IEC 11801 2010), IP20
Qty.	10 ST	
Type	IE-P70	Version
Order No.	<a href="#">8813120000</a>	RJ45 plug-in connector, with kink protection; 6.2 - 7.1 mm, Cat.6A /
GTIN (EAN)	4032248512874	Class EA (ISO/IEC 11801 2010), IP20
Qty.	10 ST	
Type	IE-PM-RJ45-TH	Version
Order No.	<a href="#">1963580000</a>	RJ45 crimp plug, Plug without bending protection sleeve, Cat.6A /
GTIN (EAN)	4032248645688	Class EA (ISO/IEC 11801 2010)
Qty.	100 ST	
Type	IE-PS-RJ45-TH-BK	Version
Order No.	<a href="#">1963590000</a>	RJ45 crimp plug, Plug with bending protection sleeve in black,
GTIN (EAN)	4032248645695	Cat.6A / Class EA (ISO/IEC 11801 2010)
Qty.	10 ST	
Type	IE-PS-RJ45-TH-BK-P	Version
Order No.	<a href="#">2584980000</a>	RJ45 crimp plug, with kink protection; 6.5 - 7.5 mm, Cat.5 (ISO/IEC
GTIN (EAN)	4050118593556	11801)
Qty.	10 ST	

### straight

RJ45 plug-in connector (no tools required) according to IEC 60603-7-51.



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## Counterpart

### General ordering data

Type	IE-PS-RJ45-FH-180-A-1.1	Version
Order No.	<a href="#">1992850000</a>	RJ45 plug with piercing contacts, straight, Cat.6A / Class EA (ISO/
GTIN (EAN)	4050118378115	IEC 11801 2010), EIA/TIA T568 A
Qty.	1 ST	
Type	IE-PS-RJ45-FH-180-A-1.6	Version
Order No.	<a href="#">1992820000</a>	RJ45 plug with piercing contacts, straight, Cat.6A / Class EA (ISO/
GTIN (EAN)	4050118377897	IEC 11801 2010), EIA/TIA T568 A
Qty.	1 ST	
Type	IE-PS-RJ45-FH-180-B-1.1	Version
Order No.	<a href="#">1992860000</a>	RJ45 plug with piercing contacts, straight, Cat.6A / Class EA (ISO/
GTIN (EAN)	4050118378108	IEC 11801 2010), EIA/TIA T568 B
Qty.	1 ST	
Type	IE-PS-RJ45-FH-180-B-1.6	Version
Order No.	<a href="#">1992830000</a>	RJ45 plug with piercing contacts, straight, Cat.6A / Class EA (ISO/
GTIN (EAN)	4050118377972	IEC 11801 2010), EIA/TIA T568 B
Qty.	1 ST	
Type	IE-PS-RJ45-FH-180-P-1.6	Version
Order No.	<a href="#">1992840000</a>	RJ45 plug with piercing contacts, straight, Cat.5 (ISO/IEC 11801),
GTIN (EAN)	4050118378023	PROFINET
Qty.	1 ST	

### angled with cable gland

RJ45 plug-in connector (no tools required) according to IEC 60603-7-51.



### General ordering data

Type	IE-PS-RJ45-FH-90-A-1.1	Version
Order No.	<a href="#">1518080000</a>	RJ45 plug with piercing contacts, angled, 4x90°, Cat.6A / Class EA
GTIN (EAN)	4050118324969	(ISO/IEC 11801 2010), EIA/TIA T568 A
Qty.	1 ST	
Type	IE-PS-RJ45-FH-90-A-1.6	Version
Order No.	<a href="#">1992870000</a>	RJ45 plug with piercing contacts, angled, 4x90°, Cat.6A / Class EA
GTIN (EAN)	4050118378054	(ISO/IEC 11801 2010), EIA/TIA T568 A
Qty.	1 ST	
Type	IE-PS-RJ45-FH-90-B-1.1	Version
Order No.	<a href="#">1518090000</a>	RJ45 plug with piercing contacts, angled, 4x90°, Cat.6A / Class EA
GTIN (EAN)	4050118325300	(ISO/IEC 11801 2010), EIA/TIA T568 B
Qty.	1 ST	
Type	IE-PS-RJ45-FH-90-B-1.6	Version
Order No.	<a href="#">1992890000</a>	RJ45 plug with piercing contacts, angled, 4x90°, Cat.6A / Class EA
GTIN (EAN)	4050118378122	(ISO/IEC 11801 2010), EIA/TIA T568 B
Qty.	1 ST	

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## Counterpart

Type	IE-PS-RJ45-FH-90-P-1.6	Version
Order No.	<a href="#">1518100000</a>	RJ45 plug with piercing contacts, angled, 4x90°, Cat.5 (ISO/IEC 11801), PROFINET
GTIN (EAN)	4050118325232	
Qty.	1 ST	

## RJ45 tool-free



RJ45 plug-in connector (tool-less) according to IEC 60603-7-51 for wire outer diameters up to 1.6 mm

## General ordering data

Type	IE-PS-RJ45-FH-BK	Version
Order No.	<a href="#">1963600000</a>	RJ45 IDC plug, Cat.6A / Class EA (ISO/IEC 11801 2010), 8-core, 4-core, EIA/TIA T568 A, EIA/TIA T568 B, PROFINET
GTIN (EAN)	4032248645725	
Qty.	10 ST	
Type	IE-PS-RJ45-FH-BK-A	Version
Order No.	<a href="#">1132040000</a>	RJ45 IDC plug, Cat.6A / Class EA (ISO/IEC 11801 2010), 8-core, EIA/TIA T568 A
GTIN (EAN)	4032248912155	
Qty.	10 ST	
Type	IE-PS-RJ45-FH-BK-B	Version
Order No.	<a href="#">1132050000</a>	RJ45 IDC plug, Cat.6A / Class EA (ISO/IEC 11801 2010), 8-core, EIA/TIA T568 B
GTIN (EAN)	4032248912148	
Qty.	10 ST	
Type	IE-PS-RJ45-FH-BK-P	Version
Order No.	<a href="#">1132060000</a>	RJ45 IDC plug, Cat.5 (ISO/IEC 11801), 4-core, PROFINET
GTIN (EAN)	4032248912162	
Qty.	10 ST	