

RJ45C5 R1D 3.3E4N RL

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com



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 0.3mm stand-off ensures a perfect soldering result

General ordering data

Version	OMNIMATE Data - RJ45 modular jack, PCB plug-in connector, Cat. 5, THT/THR solder connection, 90°, bottom, 6 tabs, No, Plugging cycles: 750, Number of poles: 10, PA 9T, 30...80 μm Ni / ≥ 30 μm Au , Tape
Order No.	2562910000
Type	RJ45C5 R1D 3.3E4N RL
GTIN (EAN)	4050118571936
Qty.	200 items
Packaging	Tape

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Technical data

Approvals

ROHS	Conform
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Dimensions and weights

Depth	21.3 mm	Depth (inches)	0.8386 inch
Height	17.06 mm	Height (inches)	0.6717 inch
Height of lowest version	13.76 mm	Width	15.7 mm
Width (inches)	0.6181 inch	Net weight	4.03 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	No
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
Solder eyelet hole diameter tolerance (D)	± 0.1 mm
Number of solder pins per pole	1
Type of connection	Solder connection
Solder eyelet hole diameter (D)	0.9 mm
Category	Cat. 5
Product family	OMNIMATE Data - RJ45 modular jack
Pitch in mm (P)	1.27 mm
Protection degree	IP20
Plugging cycles	750
Wiring	8-core
Outgoing elbow	90°
Shield surface	nickel-plated
Shield tabs	6 tabs
Performance-Category	Cat. 5
Soldering process	Reflow soldering, Manual soldering, Wave soldering
Latch option	bottom
Solder pin dimensions	Octagonal
Solder pin length tolerance	Lower tolerance with prefix (reveals minimum) -0.5 Upper tolerance with prefix (reveals maximum) +0.5 Tolerance, unit mm
Solder pin length tolerance	+0.5 / -0.5 mm
Tolerance of solder pin position	± 0.15 mm

Electrical properties

Dielectric strength, contact / shield	1500 V DC	Dielectric strength, contact / contact	1000 V DC
Volume resistance	<25 mΩ	Insulation resistance	≥ 500 MΩ
Nominal voltage	125 V	Rated current	1.5 A
PoE / PoE+	conforming to IEEE 802.3at		

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Standards

Connector standard IEC 60603-7-5 1

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
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	Tape	VPE length	330.00 mm
VPE width	330.00 mm	VPE height	58.00 mm
Tape reel diameter ∅ (A)	330 mm	Surface resistance	Rs = 109 - 1012 Ω

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		

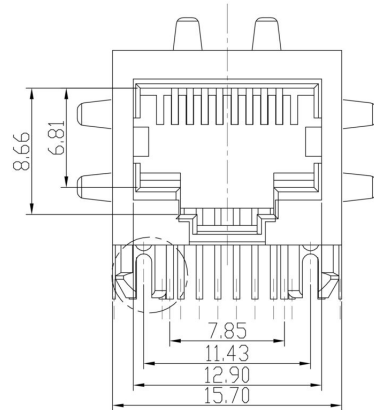
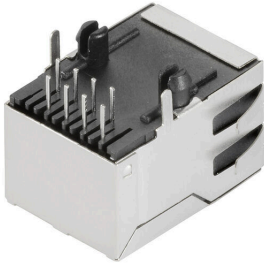
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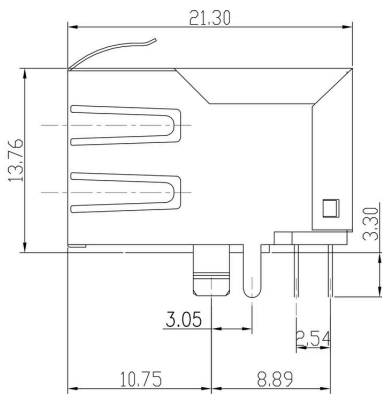
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Drawings

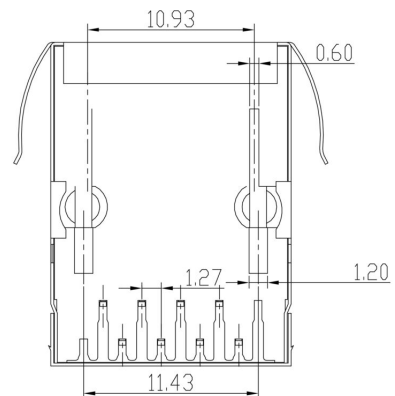
Dimensioned drawing



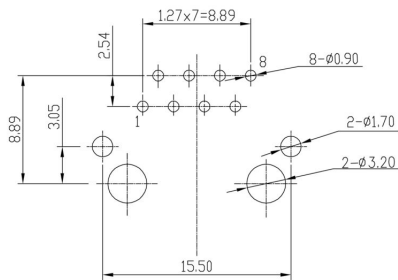
Dimensioned drawing



Dimensioned drawing



PCB design



PCB LAYOUT

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Drawings

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Code	Value	Description								
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								
	T	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								
	C6e	Category 6e								
	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+								

Legend