

RJ45C5 R1U 2.8N4G/Y 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°, top, none, Yes, Plugging cycles: 750, Number of poles: 12, PA 9T, 30...80 μm Ni / ≥ 30 μm Au, Tape
Order No.	2562950000
Type	RJ45C5 R1U 2.8N4G/Y RL
GTIN (EAN)	4050118571974
Qty.	200 items
Packaging	Tape

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Technical data

Approvals

ROHS	Conform
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Dimensions and weights

Depth	15.7 mm	Depth (inches)	0.6181 inch
Height	16.74 mm	Height (inches)	0.6591 inch
Height of lowest version	13.44 mm	Width	16.4 mm
Width (inches)	0.6457 inch	Net weight	4.08 g

Environmental Product Compliance

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

System specifications

Number of poles	12	
LED	Yes	
Solder pin length (l)	2.75 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°	
Forward current	20 mA	
Forward voltage, max.	2.6 V	
Shield surface	nickel-plated	
Colour of right LED	yellow	
Shield tabs	none	
Performance-Category	Cat. 5	
Soldering process	Reflow soldering, Manual soldering, Wave soldering	
Latch option	top	
Solder pin dimensions	Octagonal	
Solder pin length tolerance	Lower tolerance with prefix (reveals minimum)	-0.2
	Upper tolerance with prefix (reveals maximum)	+0.2
	Tolerance, unit	mm
Solder pin length tolerance	+0.2 / -0.2 mm	
Tolerance of solder pin position	± 0.15 mm	
Forward voltage, min.	1.8 V	
Colour of left LED	green	

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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		

Standards

Connector standard	IEC 60603-7-5 1
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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	Phosphor bronze alloy	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	356.00 mm
VPE width	344.00 mm	VPE height	126.00 mm
Tape reel diameter Ø (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		

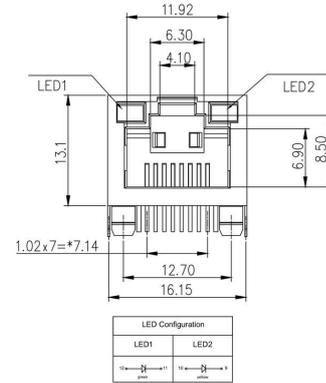
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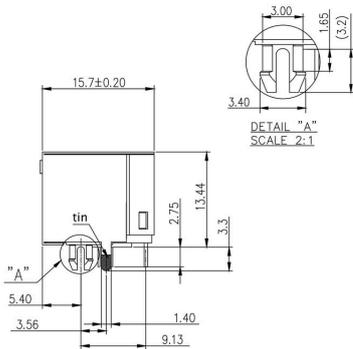
Drawings

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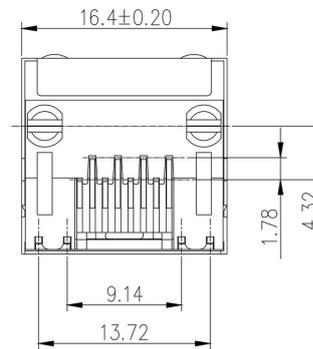
Dimensioned drawing



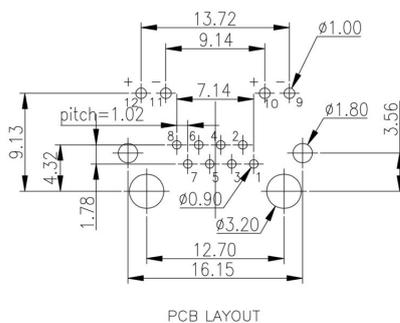
Dimensioned drawing



Dimensioned drawing



PCB design



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Drawings

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Code	Value	Description
RJ45	G1	R1U
		3.2
		E
		4
		GY/GY
		TY
RJ45G1 R1U 3.2E4GY/GY TY		
Packaging	TY RL	Tray in box (manual assembly) Tape on Reel (automated assembly)
LED	Y/G G/Y GY/GY O/G R/O ... N	Yellow/Green Green/Yellow (standard) Green-Yellow/Green-Yellow Orange/Green Red/Orange ... (further combinations possible) without LED
Contact surface thickness	4	1 = 3µ", 2 = 6µ", 3 = 15µ", 4 = 30µ", 5 = 50µ"
EMI tabs (ground fingers)	E N	E = with EMI tabs N = without EMI tabs
Solder Pin length	3.2 1.6 D	3.2 mm 1.6 mm SMD
Direction, latch style	U D V Y	Horizontal (90°, side entry), latch up Horizontal (90°, side entry), latch down Vertical (180°, top entry) Diagonal (45°), latch up
Number of Ports	1 12; 14; ... 21; 41; ...	1 Port multi ports side by side, Multiport multi ports about each other, Multilevel
Assembly on PCB	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
Performance Category	C5 C6 C6A C6e M G1 G10 U MP MP+	Category 5 Category 6 Category 6A Category 6e 10/100 Mbit 10/100/1000 Mbit 10 Gbit Unshielded 10/100 Mbit with POE 10/100 Mbit with POE+

Legend