

RJ45C5 R1D 3.2E4G/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°, bottom, 6 tabs, Yes, Plugging cycles: 750, Number of poles: 12, PA 9T, 30...80 μm Ni / ≥ 30 μm Au , Tape
Order No.	2562870000
Type	RJ45C5 R1D 3.2E4G/Y RL
GTIN (EAN)	4050118571790
Qty.	200 items
Packaging	Tape

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Technical data

Approvals

Approvals



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

Dimensions and weights

Depth	21.5 mm	Depth (inches)	0.8465 inch
Height	15.8 mm	Height (inches)	0.622 inch
Height of lowest version	13.6 mm	Width	15.8 mm
Width (inches)	0.622 inch	Net weight	9.64 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)	3.2 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	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
Forward voltage, min.	1.8 V

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Colour of left LED green

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 60603-7-51

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	336.00 mm
VPE width	334.00 mm	VPE height	125.00 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		

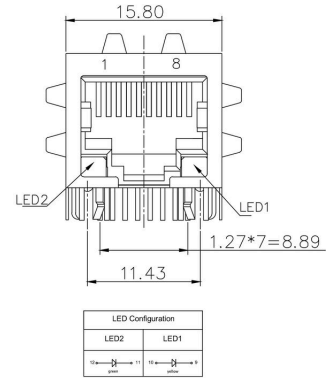
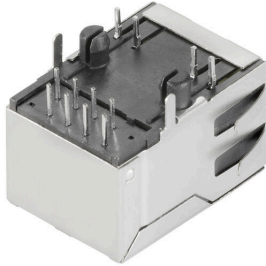
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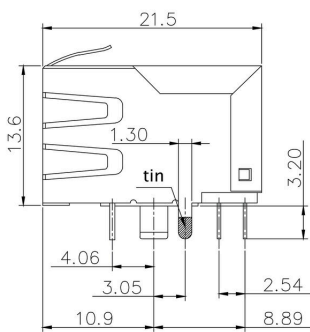
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Drawings

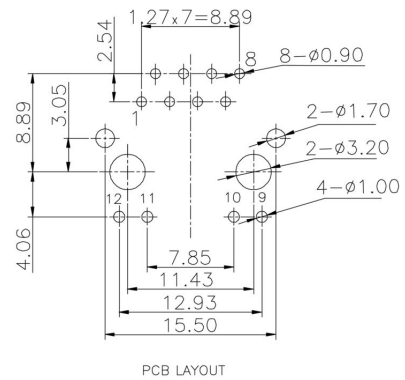
Dimensioned drawing



Dimensioned drawing



PCB design



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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

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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.	8813100000	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.	8813110000	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.	8813120000	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.	1963580000	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.	1963590000	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.	2584980000	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.	1992850000	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.	1992820000	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.	1992860000	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.	1992830000	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.	1992840000	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.	1518080000	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.	1992870000	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.	1518090000	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.	1992890000	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.	1518100000	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.	1963600000	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.	1132040000	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.	1132050000	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.	1132060000	RJ45 IDC plug, Cat.5 (ISO/IEC 11801), 4-core, PROFINET
GTIN (EAN)	4032248912162	
Qty.	10 ST	