

RJ45C5 S1V 2.7E4N RL

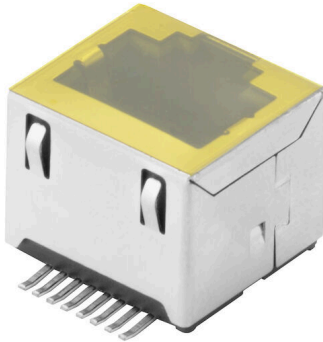
Weidmüller Interface GmbH & Co. KG

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, SMD solder connection, 180°, 4 tabs, No, Plugging cycles: 750, Number of poles: 8, PA 9T, Tape
Order No.	251460000
Type	RJ45C5 S1V 2.7E4N RL
GTIN (EAN)	4050118528268
Qty.	300 items
Packaging	Tape

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Technical data

Approvals

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

Dimensions and weights

Depth	14.7 mm	Depth (inches)	0.5787 inch
Height	13.1 mm	Height (inches)	0.5157 inch
Height of lowest version	13.1 mm	Width	16.1 mm
Width (inches)	0.6339 inch	Net weight	6.67 g

Environmental Product Compliance

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

System specifications

Number of poles	8
LED	No
Solder pin length (l)	2.65 mm
Mounting onto the PCB	SMD 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	SMT solder connection
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	180°
Shield surface	nickel-plated
Shield tabs	4 tabs
Performance-Category	Cat. 5
Soldering process	Reflow soldering, Manual soldering
Solder pin dimensions	Octagonal
Coplanarity:	100 µm
Solder pin length tolerance	Lower tolerance with prefix (reveals minimum) -0,15 Upper tolerance with prefix (reveals maximum) +0,15 Tolerance, unit mm
Solder pin length tolerance	+0,15 / -0,15 mm
Tolerance of solder pin position	± 0.1 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

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Nominal voltage	125 V	Rated current	1.5 A
PoE / PoE+	conforming to IEEE 802.3at		

Standards

Connector standard	IEC 60603-7-51
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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	Phosphorus bronze	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		

Packing

Packaging	Tape	VPE length	354.00 mm
VPE width	349.00 mm	VPE height	128.00 mm
Tape reel diameter \varnothing (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		

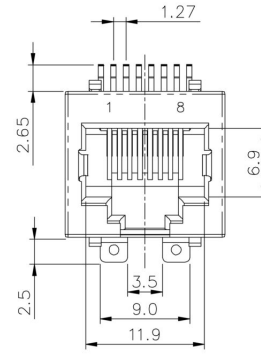
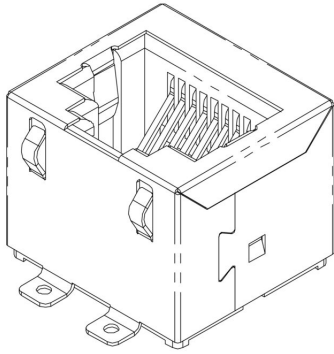
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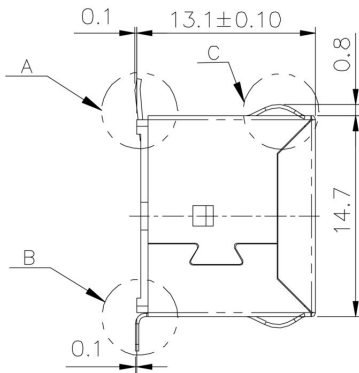
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Drawings

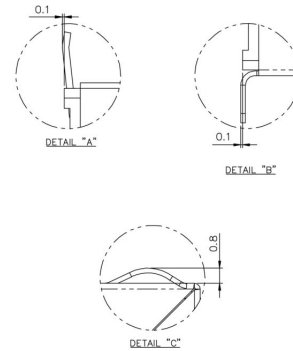
Dimensioned drawing



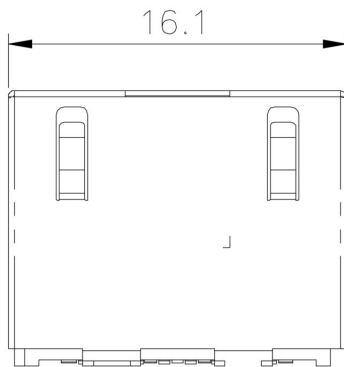
Dimensioned drawing



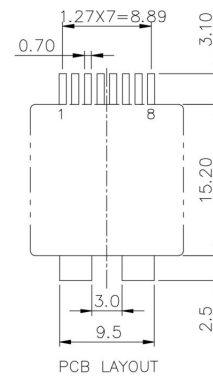
Dimensioned drawing



Dimensioned drawing



PCB design



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Drawings

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Code	Value	Description
RJ45	G1	RJ45G1
R	1	R1U
U	3.2	3.2E
E	4	4GY/GY
4	GY/GY	TY
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 C5e M G1 G10 U MP MP+	Category 5 Category 6 Category 6A Category 5e 10/100 Mbit 10/100/1000 Mbit 10 Gbit Unshielded 10/100 Mbit with POE 10/100 Mbit with POE+

Legend