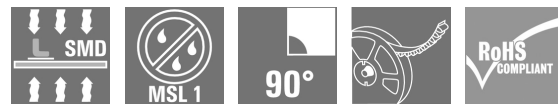


RJ45C5E S1U DE4G/Y RL**Weidmüller Interface GmbH & Co. KG**

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	PCB plug-in connector, RJ45 jacks, Cat. 5e, SMD solder connection, 90°, Latch option: top, Shield tabs: 6 tabs, 30...80 μm Ni / ≥ 30 μm Au, LED: Yes, green, yellow, Number of poles: 12, Tape
Order No.	2562890000
Type	RJ45C5E S1U DE4G/Y RL
GTIN (EAN)	4050118571912
Qty.	200 pc(s).
Packaging	Tape

RJ45C5E S1U DE4G/Y RL

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Technical data

Dimensions and weights

Depth	15.7 mm	Depth (inches)	0.618 inch
Height	14.71 mm	Height (inches)	0.579 inch
Height of lowest version	13.41 mm	Width	18.8 mm
Width (inches)	0.74 inch	Net weight	0.009 g

System specifications

Category	Cat. 5e	
Colour of left LED	green	
Colour of right LED	yellow	
Coplanarity:	100 µm	
Forward current	20 mA	
Forward voltage, max.	2.6 V	
Forward voltage, min.	1.8 V	
LED	Yes	
Latch option	top	
Mounting onto the PCB	SMD solder connection	
Number of poles	12	
Number of solder pins per pole	1	
Outgoing elbow	90°	
Performance-Category	Cat. 5e	
Pitch in inches (P)	0.05 "	
Pitch in mm (P)	1.27 mm	
Plugging cycles	750	
Product family	OMNIMATE Data - RJ45 modular jack	
Protection degree	IP20	
Shield surface	nickel-plated	
Shield tabs	6 tabs	
Shielding	Yes	
Shielding material	Brass	
Solder eyelet hole diameter (D)	0.9 mm	
Solder eyelet hole diameter tolerance (D)	± 0.1 mm	
Solder pin dimensions	Octagonal	
Solder pin length (l)	3.7 mm	
Solder pin length tolerance	+0,02 / -0.2 mm	
Solder pin length tolerance	Lower tolerance with prefix (reveals minimum)	-0.2
	Upper tolerance with prefix (reveals maximum)	+0,02
	Tolerance, unit	mm
Soldering process	Reflow soldering, Manual soldering	
Tolerance of solder pin position	± 0.15 mm	
Type of connection	SMD solder connection	
Wiring	8-core	

Electrical properties

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

Standards

Connector standard	IEC 60603-7-51
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Technical data

Material data

Insulating material	PA 9T	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	II
Comparative Tracking Index (CTI)	≥ 500	Insulation strength	≥ 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	329 mm
VPE width	329 mm	VPE height	63 mm
Tape reel diameter Ø (A)	330 mm	Surface resistance	Rs = 10 ⁹ - 10 ¹² Ω

Classifications

ETIM 6.0	EC002637	ETIM 7.0	EC002637
ETIM 8.0	EC002637	ETIM 9.0	EC002637
ETIM 10.0	EC002637	ECLASS 9.1	27-44-04-02
ECLASS 10.0	27-44-04-02	ECLASS 11.0	27-46-02-01
ECLASS 12.0	27-46-02-01	ECLASS 13.0	27-46-02-01
ECLASS 14.0	27-46-02-01	ECLASS 15.0	27-46-02-01

Environmental Product Compliance

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

Approvals

ROHS	Conform
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Downloads

Approval/Certificate/Document of Conformity	Certificate of Compliance
Engineering Data	CAD data – STEP
Catalogues	Catalogues in PDF-format

RJ45C5E S1U DE4G/Y RL

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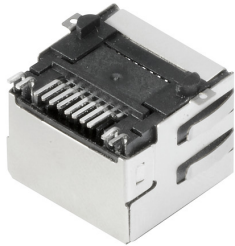
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Germany

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Drawings

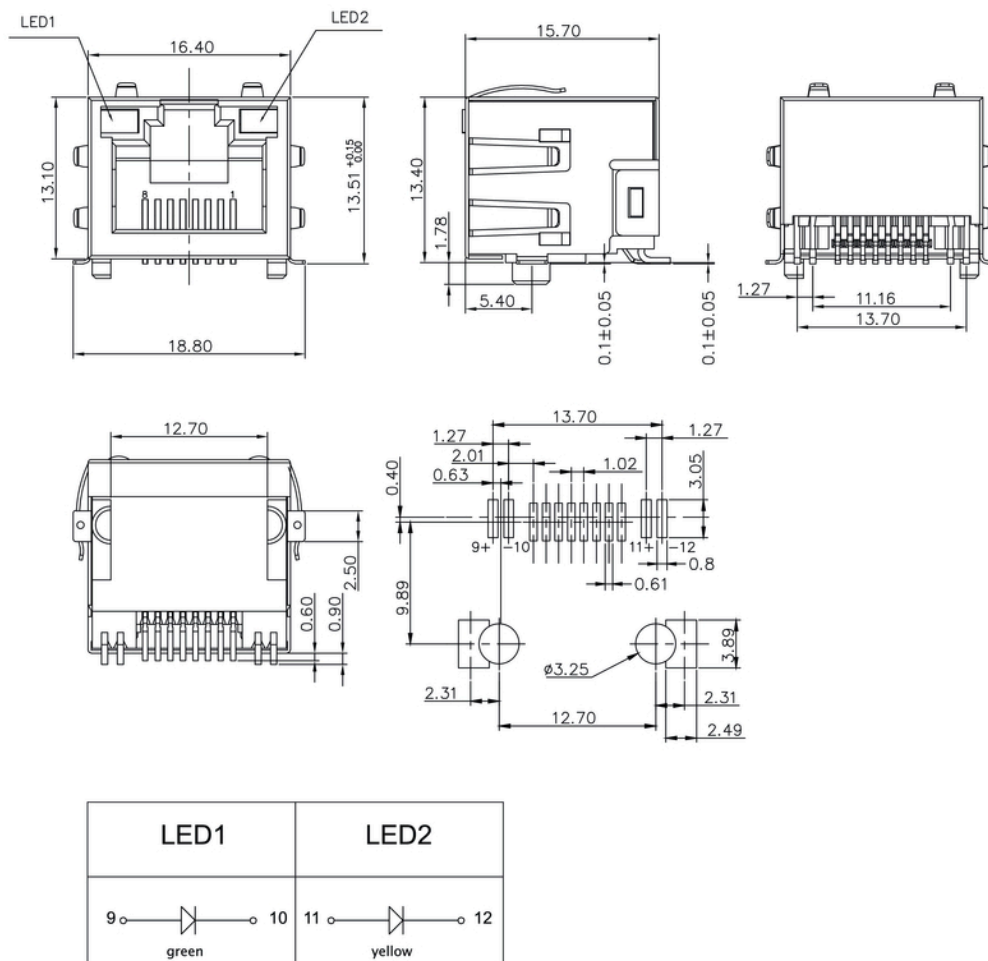


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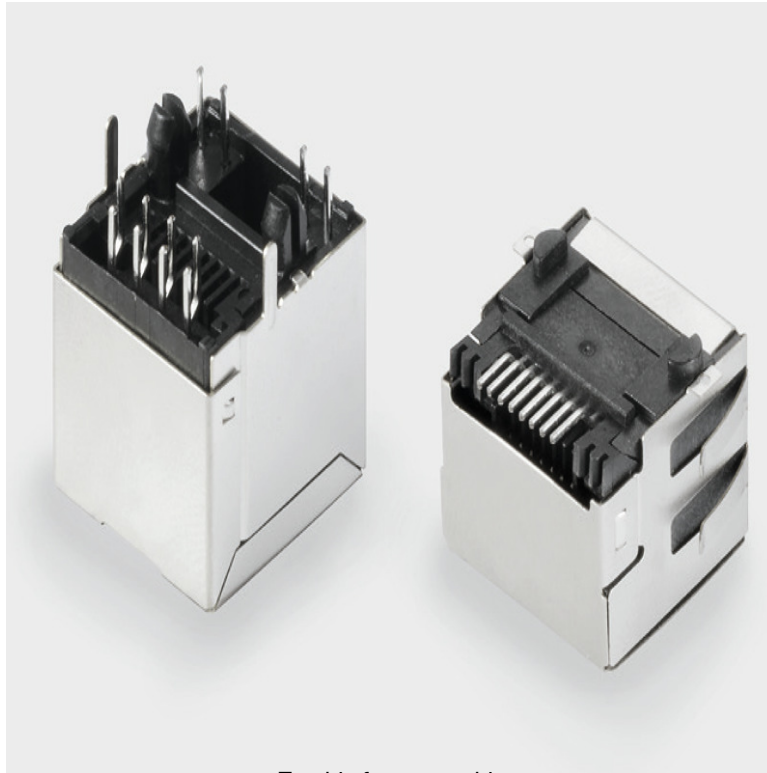
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Drawings
Dimensional drawing


RJ45C5E S1U DE4G/Y RL

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Drawings**Product benefits**

Trouble-free assembly
Short, chamfered solder pins

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
											C5e	Category 5e
											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+

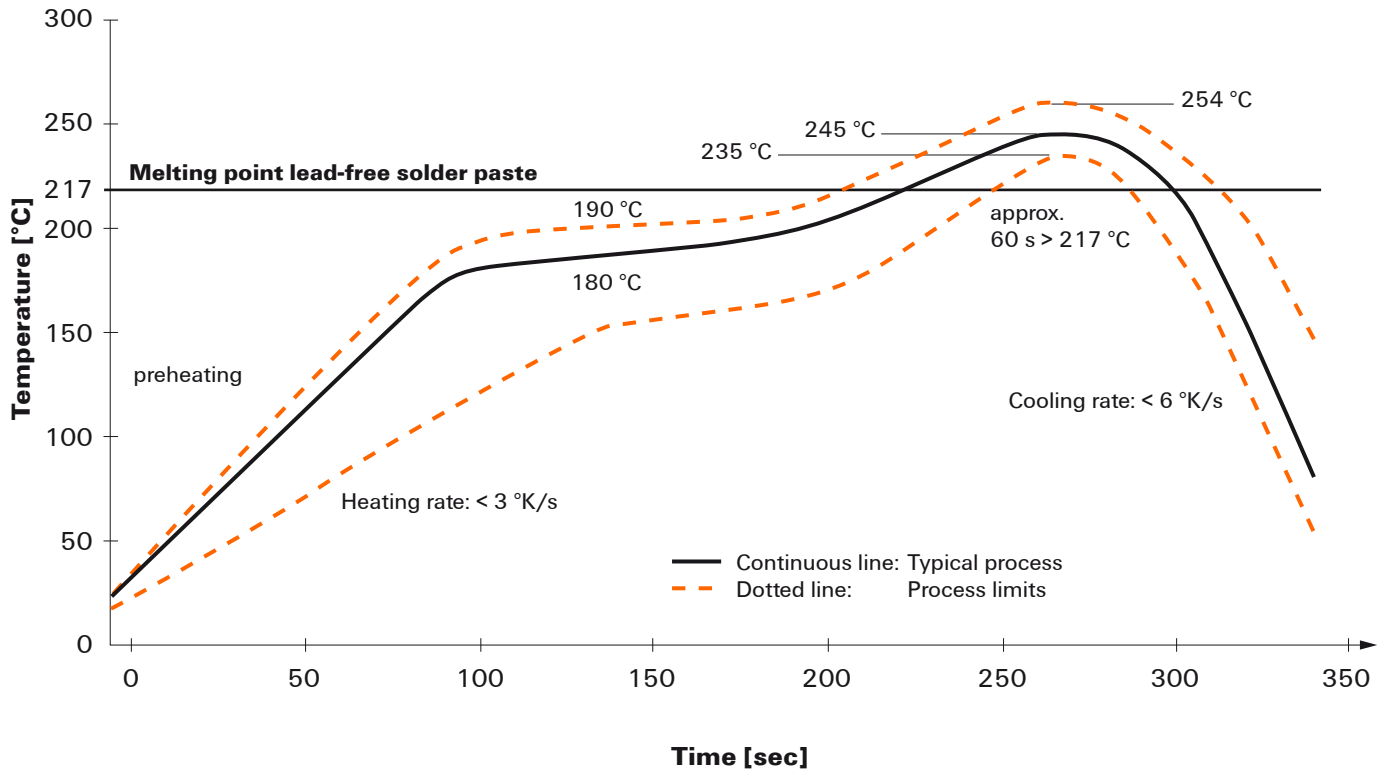
Legend

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Recommended reflow soldering profile

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 16
D-32758 Detmold
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com



Reflow soldering profile

The perfect soldering profile for SMT Surface Mount Technology is one the most exiting question in SMT production. But there are more than one correct answer: The diagram of temperature-on-time is related to processing features of solder paste and to maximum load of components.

We have to consider the following parameters:

- Time for pre heating
- Maximum temperature
- Time above melting point
- Time for cooling
- Maximum heating rate
- Maximum cooling rate

We recommend a typical solder profile with associated process limits. With preheating components and board are prepared smoothly for the solder phase. Heating rate is typically $\leq +3\text{K/s}$. In parallel the solder paste is 'activated'. The time above melting point of 217°C the paste gets liquid and components and boards begin to connect. The maximum temperature of 245°C to 254°C should stay between 10 and 40 seconds. In the cooling phase at $\geq -6\text{K/s}$ solder is cured. Board and components cool down while avoiding cold cracks.