

RJ45C5 S1V 2.7N4N 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. 5 , SMD solder connection, 180°, Shield tabs: none, 30...80 μm Ni / ≥ 30 μm Au , LED: No, Number of poles: 8, Tape
Order No.	1433900000
Type	RJ45C5 S1V 2.7N4N RL
GTIN (EAN)	4050118238587
Qty.	300 pc(s).
Packaging	Tape

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Technical data**Dimensions and weights**

Depth	20.05 mm	Depth (inches)	0.789 inch
Height	13.2 mm	Height (inches)	0.52 inch
Height of lowest version	13.2 mm	Width	16.1 mm
Width (inches)	0.634 inch	Net weight	3.467 g

System specifications

Category	Cat. 5	Coplanarity:	100 µm
LED	No	Mounting onto the PCB	SMD solder connection
Number of poles	8	Number of solder pins per pole	1
Outgoing elbow	180°	Performance-Category	Cat. 5
Pitch in inches (P)	0.05 inch	Pitch in mm (P)	1.27 mm
Product family	OMNIMATE Data - RJ45 modular jack	Protection degree	IP20
Shield surface	nickel-plated	Shield tabs	none
Shielding	Yes	Shielding material	Copper alloy
Solder pin length (l)	3.5 mm	Soldering process	Reflow soldering, Manual soldering
Type of connection	Socket connector	Wiring	8-core

Electrical properties

Dielectric strength, contact / contact	1000 V DC	Dielectric strength, contact / shield	1500 V DC
Rated current	1.5 A	Rated voltage	125 V

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	Moisture Level (MSL)	1
UL 94 flammability rating	V-0	Contact base material	Phosphorus bronze
Contact surface	Gold over nickel	Layer structure of solder connection	30...80 µ" Ni / ≥ 30 µ" Sn
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	332 mm
VPE width	332 mm	VPE height	53 mm
Tape reel diameter Ø (A)	330 mm	Surface resistance	$R_s = 10^9 - 10^{12} \Omega$

Classifications

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

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Approvals



ROHS

Conform

DownloadsApproval/Certificate/Document of
Conformity[Certificate of Compliance](#)

Engineering Data

[CAD data – STEP](#)

User Documentation

[MAN IE GUIDE DE](#)[MAN IE GUIDE EN](#)

Catalogues

[Catalogues in PDF-format](#)

Brochures

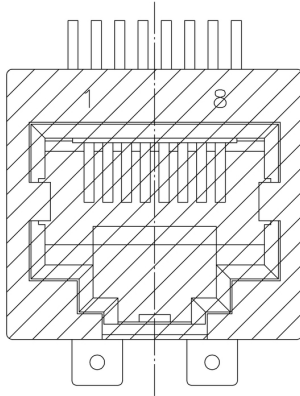
[MB FREECONTACT EN](#)[FL FIELDWIRING EN](#)[PI PROFINET CABLING EN](#)[PI PROFINET CABLING EN](#)

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Drawings



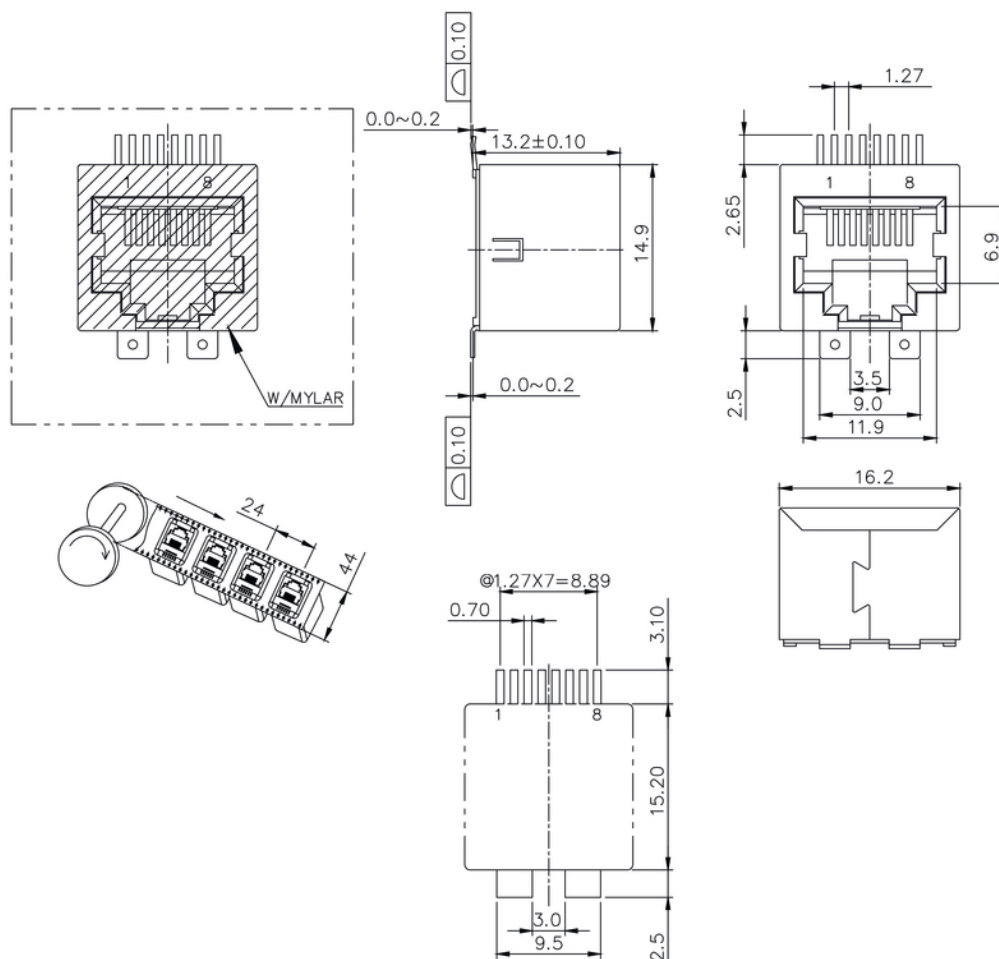
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Drawings

Dimensional drawing



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Drawings

RJ45	G1	R	1	U	3.2	E	4	GY/GY	TY	RJ45G1 R1U 3.2E4GY/GY TY

Recommended reflow soldering profile

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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.