

OMNIMATE Data - RJ45 jacks
RJ45C3 S1D 2.7N4N RL**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 16

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Germany

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www.weidmueller.com



Product range covers standing and flat designs, as well as versions with the latching hook at the top and bottom.

- THT, THR or SMD soldering processes
- Wide range of different design types, also with integrated LEDs and shield contact tabs
- Packed either in a tray (TY) or on a roll (tape-on-reel, RL)
- Extended temperature range of -40 °C to +85 °C
- Reinforced gold layer for improved corrosion protection
- Transmission rates of up to 1 Gbit/s

General ordering data

Type	RJ45C3 S1D 2.7N4N RL
Order No.	2000890000
Version	PCB plug-in connector, RJ45 jacks, SMD solder connection, 1.27 mm, No. of poles: 8, 90°, Solder pin length (l): 3.2 mm, Gold over nickel, Black, Tape
GTIN (EAN)	4050118382440
Qty.	240 pc(s).
Packaging	Tape

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Technical data**Dimensions and weights**

Net weight	3.417 g
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Temperatures

Operating temperature, max.	85 °C	Operating temperature, min.	-40 °C
Storage temperature, max.	85 °C	Storage temperature, min.	-40 °C

System specifications

Category	Cat.3	LED	No
Mounting onto the PCB	SMD solder connection	No. of poles	8
Number of solder pins per pole	1	Outgoing elbow	90°
Pitch in inches (P)	0.05 inch	Pitch in mm (P)	1.27 mm
Plugging cycles	750	Product family	OMNIMATE Data - RJ45 jacks
Protection degree	IP20	Shield surface	nickel-plated
Shield tabs	none	Shielding	Yes
Shielding material	Copper alloy	Solder pin length (l)	3.2 mm
Tack option	bottom	Type of connection	Socket
Wiring	8-core		

Electrical properties

Dielectric strength, contact / contact	≥ 1000 V DC	Insulation resistance	> 500 MΩ
Rated current	1.5 A	Rated voltage	125 V AC

Material data

Insulating material	PA 9T	Colour	Black
Colour chart (similar)	RAL 9011	Insulating material group	II
CTI	≥ 500	Insulation resistance	> 500 MΩ
Moisture Level (MSL)	1	UL 94 flammability rating	V-0
Contact base material	Phosphorus bronze	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		

Classifications

ETIM 6.0	EC002637	eClass 6.2	27-25-05-04
eClass 9.1	27-44-04-02		

Approvals

Approvals



ROHS	Conform
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Technical data

Downloads

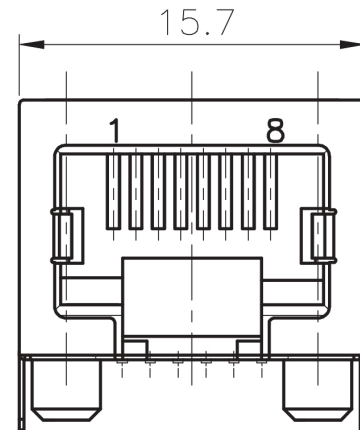
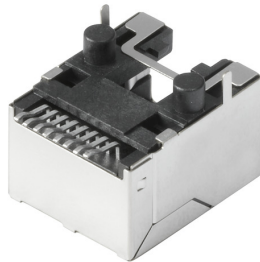
Brochure/Catalogue	MB FREECONTACT EN FL FIELDWIRING EN PI PROFINET CABLING EN
User Documentation	MAN IE GUIDE DE MAN IE GUIDE EN

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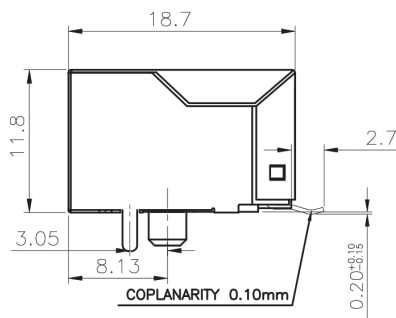
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Drawings

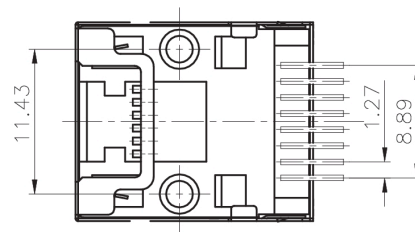
Dimensioned drawing



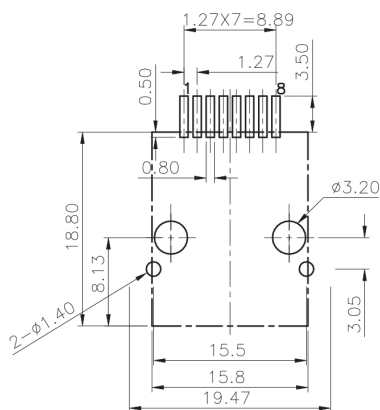
Dimensioned drawing



Dimensioned drawing



PCB design



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Drawings

Legend

RJ45	G1	R	1	U	3.2	E	4	GY/GY	TY	RJ45G1 R1U 3.2E4GY/GY TY
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Recommended reflow soldering profile

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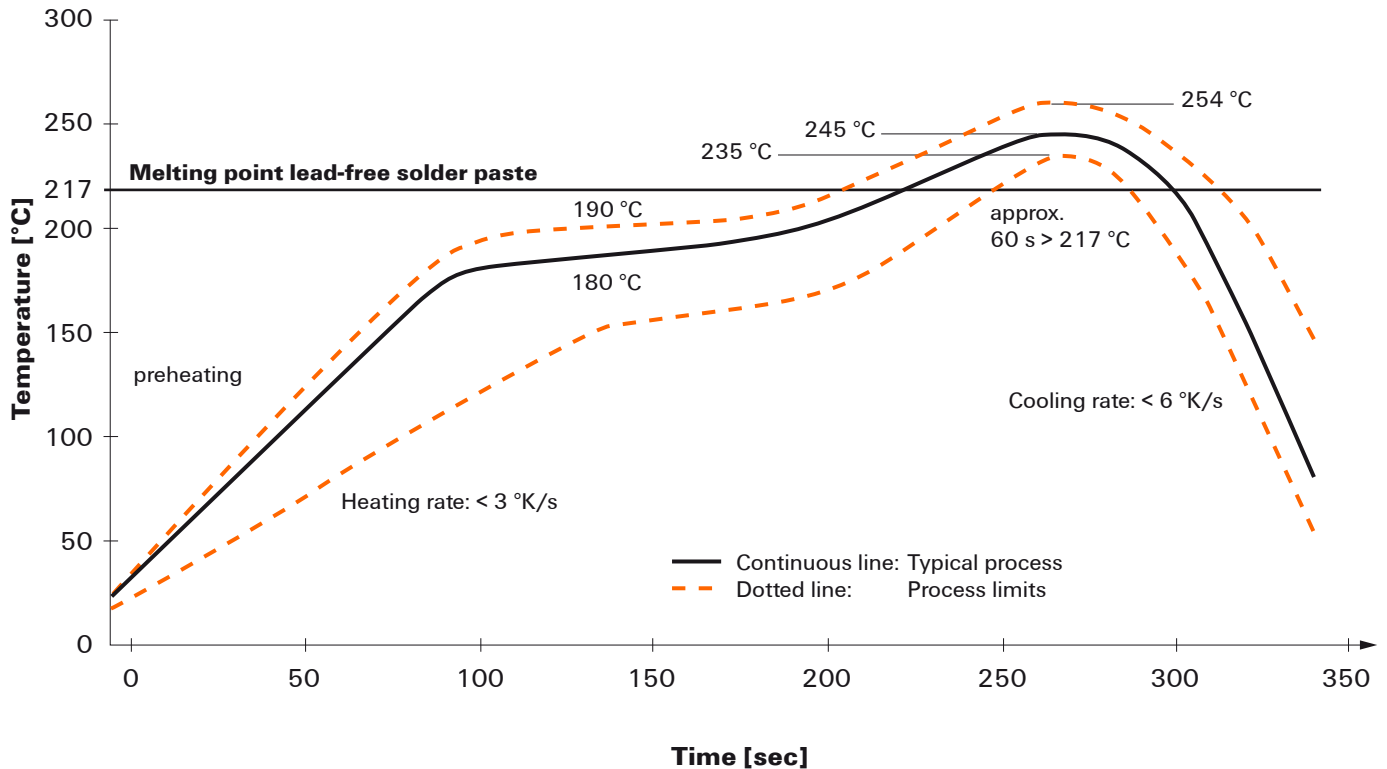
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Reflow soldering profile

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.

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