

OMNIMATE Data - RJ45 jacks RJ45C5 T1V 3.2N4N TY

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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 3 mm stand-off ensures a perfect soldering result

General ordering data

Type	RJ45C5 T1V 3.2N4N TY
Order No.	1433810000
Version	PCB plug-in connector, RJ45 jacks, THT solder connection, 1.27 mm, No. of poles: 8, 180°, Solder pin length (l): 3.2 mm, Gold over nickel, black, Tray
GTIN (EAN)	4050118238563
Qty.	120 pc(s).
Packaging	Tray

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Technical data
Dimensions and weights

Width	16 mm	Width (inches)	0.63 inch
Height	20 mm	Height (inches)	0.787 inch
Height of lowest version	16.5 mm	Depth	16.7 mm
Depth (inches)	0.657 inch	Net weight	2.983 g

Temperatures

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

Environmental Product Compliance

REACH SVHC Lead 7439-92-1

System specifications

Category	Cat. 5	LED	No
Mounting onto the PCB	THT solder connection	No. of poles	8
Number of solder pins per pole	1	Outgoing elbow	180°
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 eyelet hole diameter (D)	0.9 mm
Solder eyelet hole diameter tolerance (D)± 0.1 mm		Solder pin dimensions	0.40 x 0.30 mm
Solder pin length (l)	3.2 mm	Type of connection	Socket connector
Wiring	8-core		

Electrical properties

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

Material data

Insulating material	PA 66	Colour code	black
Colour chart (similar)	RAL 9011	Insulating material group	II
CTI	≥ 500	Insulation strength	1000 MΩ at 500 V DC
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

Packing

Packaging	Tray	VPE length	20 mm
VPE width	175 mm	VPE height	295 mm

Classifications

ETIM 6.0	EC002637	eClass 6.2	27-25-05-04
eClass 7.1	27-25-05-04	eClass 8.1	19-17-01-25
eClass 9.0	27-44-04-02	eClass 9.1	27-44-04-02

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Technical data

Approvals

Approvals



ROHS

Conform

Downloads

Brochure/Catalogue

[CAT 9 IETH 15/16 EN](#)
[MB FREECONTACT EN](#)
[FL FIELDWIRING EN](#)
[PI PROFINET CABLING EN](#)

User Documentation

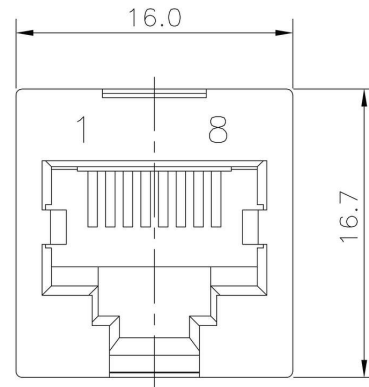
[MAN IE GUIDE DE](#)
[MAN IE GUIDE EN](#)

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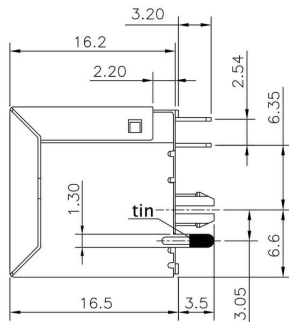
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Drawings

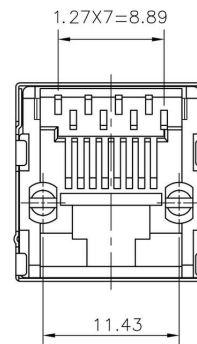
Dimensioned drawing



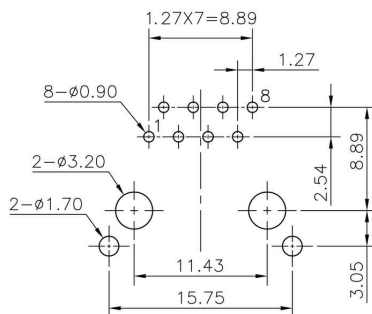
Dimensioned drawing



Dimensioned drawing



PCB design



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Mating connector (fully pluggable)
RJ45 crimp

RJ45 crimp plug-in connector according to IEC
 60603-7-5 1 for wire outer diameters up to 1.05 mm


RJ45 crimp
General ordering data

Type	Order No.	Version	GTIN (EAN)	Qty.
IE-P70	8813120000	RJ45 plug-in connector, with kink protection; 6.2 - 7.1 mm, Cat.6 _A / Class E _A (ISO/IEC 11801 2010), IP20	4032248512874	10 pc(s).
IE-P	8813100000	RJ45 plug-in connector, without kink protection; 5.5 - 7.1 mm, Cat.6 _A / Class E _A (ISO/IEC 11801 2010), IP20	4032248512850	100 pc(s).
IE-PS-RJ45-TH- BK-P	2584980000	RJ45 crimp plug, with kink protection; 6.5 - 7.5 mm, Cat.6 _A / Class E _A (ISO/IEC 11801 2010)	4050118593556	10 pc(s).
IE-PM-RJ45- TH	1963580000	RJ45 crimp plug, Plug without bending protection sleeve, Cat.6 _A / Class E _A (ISO/IEC 11801 2010)	4032248645688	100 pc(s).
IE-PS-RJ45-TH- BK	1963590000	RJ45 crimp plug, Plug with bending protection sleeve in black, Cat.6 _A / Class E _A (ISO/IEC 11801 2010)	4032248645695	10 pc(s).
IE-P63	8813110000	RJ45 plug-in connector, with kink protection; 5.5 - 6.2 mm, Cat.6 _A / Class E _A (ISO/IEC 11801 2010), IP20	4032248512867	10 pc(s).

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Mating connector (fully pluggable)
angled


RJ45 plug-in connector (no tools required) according to IEC 60603-7-51 for core diameters from 0.85 to 1.6 mm and AWG 22-27.

General ordering data

Type	Order No.	Version	GTIN (EAN)	Qty.
IE-PS-RJ45- FH-90-B-1.1	1518090000	RJ45 plug, no tools required, angled, 4x90°, Cat.6 _A / Class E _A (ISO/ IEC 11801 2010), EIA/TIA T568 B	4050118325300	1 pc(s).
IE-PS-RJ45- FH-90-A-1.6	1992870000	RJ45 plug, no tools required, angled, 4x90°, Cat.6 _A / Class E _A (ISO/ IEC 11801 2010), EIA/TIA T568 A	4050118378054	1 pc(s).
IE-PS-RJ45- FH-90-B-1.6	1992890000	RJ45 plug, no tools required, angled, 4x90°, Cat.6 _A / Class E _A (ISO/ IEC 11801 2010), EIA/TIA T568 B	4050118378122	1 pc(s).
IE-PS-RJ45- FH-90-A-1.1	1518080000	RJ45 plug, no tools required, angled, 4x90°, Cat.6 _A / Class E _A (ISO/ IEC 11801 2010), EIA/TIA T568 A	4050118324969	10 pc(s).
IE-PS-RJ45- FH-90-P-1.6	1518100000	RJ45 plug, no tools required, angled, 4x90°, Cat.5 (ISO/IEC 11801), PROFINET	4050118325232	10 pc(s).

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Mating connector (fully pluggable)
RJ45 tool-free


RJ45 plug-in connector (tool-less) according to IEC 60603-7-5 1 for wire outer diameters up to 1.6 mm

RJ45 tool-free
General ordering data

Type	Order No.	Version	GTIN (EAN)	Qty.
IE-PS-RJ45-FH- 1963600000 BK		RJ45 plug, no tools required, Cat.6 _A / Class E _A (ISO/IEC 11801 2010), 8-core, 4-core, EIA/TIA T568 A, EIA/TIA T568 B, PROFINET	4032248645725	10 pc(s).
IE-PS-RJ45-FH- 1132050000 BK-B		RJ45 plug, no tools required, Cat.6 _A / Class E _A (ISO/IEC 11801 2010), 8- core, EIA/TIA T568 B	4032248912148	10 pc(s).
IE-PS-RJ45-FH- 1132060000 BK-P		RJ45 plug, no tools required, Cat.5 (ISO/IEC 11801), 4-core, PROFINET	4032248912162	10 pc(s).
IE-PS-RJ45-FH- 1132040000 BK-A		RJ45 plug, no tools required, Cat.6 _A / Class E _A (ISO/IEC 11801 2010), 8- core, EIA/TIA T568 A	4032248912155	10 pc(s).

straight


RJ45 plug-in connector (no tools required) according to IEC 60603-7-5 1 for core diameters from 0.85 to 1.6 mm and AWG 22-27.

General ordering data

Type	Order No.	Version	GTIN (EAN)	Qty.
IE-PS-RJ45- FH-180-B-1.6	1992830000	RJ45 plug, no tools required, straight, Cat.6 _A / Class E _A (ISO/IEC 11801 2010), EIA/TIA T568 B	4050118377972	1 pc(s).
IE-PS-RJ45- FH-180-P-1.6	1992840000	RJ45 plug, no tools required, straight, Cat.5	4050118378023	10 pc(s).

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Mating connector (fully pluggable)

	(ISO/IEC 11801), PROFINET	
IE-PS-RJ45- 1992820000 FH-180-A-1.6	RJ45 plug, no tools required, straight, Cat.6 _A / Class E _A (ISO/IEC 11801 2010), EIA/TIA T568 A	4050118377897 1 pc(s).
IE-PS-RJ45- 1992850000 FH-180-A-1.1	RJ45 plug, no tools required, straight, Cat.6 _A / Class E _A (ISO/IEC 11801 2010), EIA/TIA T568 A	4050118378115 1 pc(s).
IE-PS-RJ45- 1992860000 FH-180-B-1.1	RJ45 plug, no tools required, straight, Cat.6 _A / Class E _A (ISO/IEC 11801 2010), EIA/TIA T568 B	4050118378108 1 pc(s).

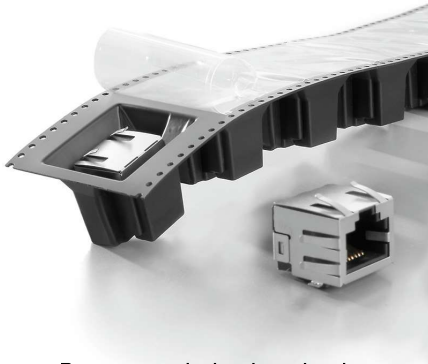
Data sheet

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Drawings

Product benefits



Process-optimized packaging
Tape-on-reel or tray

Product benefits

Product benefits



Trouble-free assembly
Short, chamfered solder pins



Suitable for all soldering processes
SMT, THT or THR

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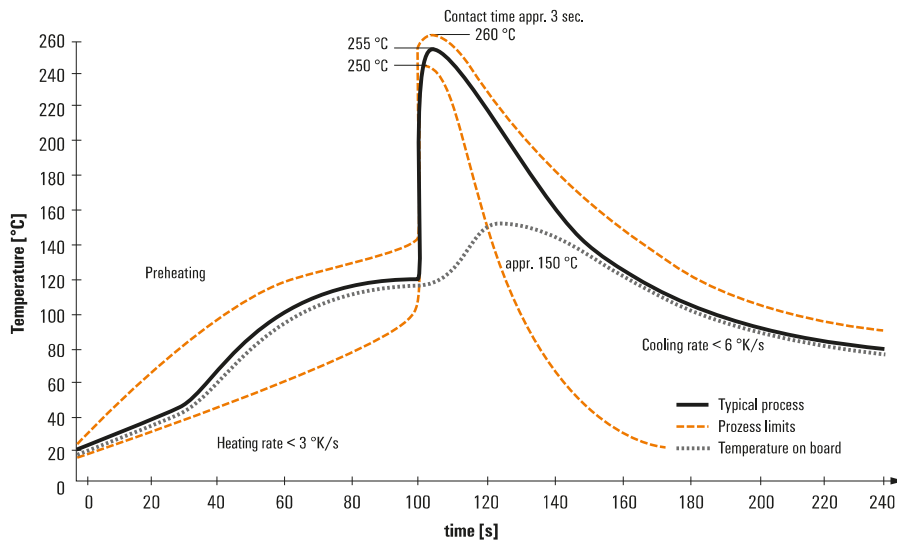
Drawing

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	Tray 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 = 3p ² , 2 = 6p ² , 3 = 15p ² , 4 = 30p² , 5 = 50p ²
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
	2; 4; ...	multi ports about each other, Multilevel
Assembly on PCB	R	Through Hole Reflow - THR
	S	Soldering process: Wave or Reflow soldering Surface Mount Technology - SMT
	T	Soldering process: Reflow soldering Through Hole Technology - THT
		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+

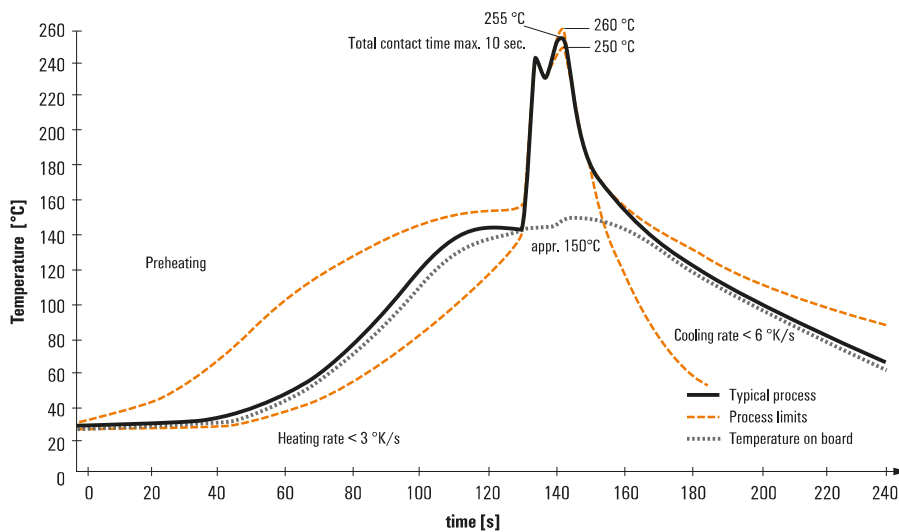
Recommended wave soldering profiles

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Single Wave:



Double Wave:



Wave soldering profiles

Wired connection elements should be processed in accordance with the DIN EN 61760-1 standard. We have included two recommendations for practical wave soldering profiles, with which Weidmüller PCB terminals and connectors are qualified.

When choosing a suitable profile for your application, the following factors also need to be considered:

- PCB thickness
- Proportion of Cu in the layers
- Single/double-sided assembly
- Product range
- Heating and cooling rates

The single and double wave profiles each indicate the recommended operating range, including the maximum soldering temperature of 260°C. In practice, the maximum soldering temperature is quite often well below the above maximum profile.

We reserve the right to make technical changes.