

RJ45C5 T1U 2.8E4G/Y TY**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 , THT solder connection, 90°, Latch option: top, Shield tabs: 6 tabs, 30...80 μm Ni / $\geq 30 \mu\text{m}$ Au , LED: Yes, green, yellow, Number of poles: 12, Tray (manual assembly)
Order No.	2562880000
Type	RJ45C5 T1U 2.8E4G/Y TY
GTIN (EAN)	4050118571905
Qty.	140 pc(s).
Packaging	Tray (manual assembly)

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Technical data

Dimensions and weights

Depth	15.7 mm	Depth (inches)	0.618 inch
Height	16.74 mm	Height (inches)	0.659 inch
Height of lowest version	13.44 mm	Width	16.4 mm
Width (inches)	0.646 inch	Net weight	6.186 g

System specifications

Category	Cat. 5
Colour of left LED	green
Colour of right LED	yellow
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	THT solder connection
Number of poles	12
Number of solder pins per pole	1
Outgoing elbow	90°
Performance-Category	Cat. 5
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)	2.75 mm
Solder pin length tolerance	+0.2 / -0.2 mm
Solder pin length tolerance	Lower tolerance with prefix (reveals minimum) -0.2
	Upper tolerance with prefix (reveals maximum) +0.2
	Tolerance, unit mm
Soldering process	Manual soldering, Wave soldering
Tolerance of solder pin position	± 0.15 mm
Type of connection	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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Material data

Insulating material	PA 66	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	II
Comparative Tracking Index (CTI)	≥ 500	Insulation strength	≥ 500 MΩ
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	Tray (manual assembly)	VPE length	318 mm
VPE width	189 mm	VPE height	65 mm

Classifications

ETIM 6.0	EC002637	ETIM 7.0	EC002637
ETIM 8.0	EC002637	ETIM 9.0	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
ECLASS 12.0	27-46-02-01	ECLASS 13.0	27-46-02-01

Approvals

ROHS	Conform
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Downloads

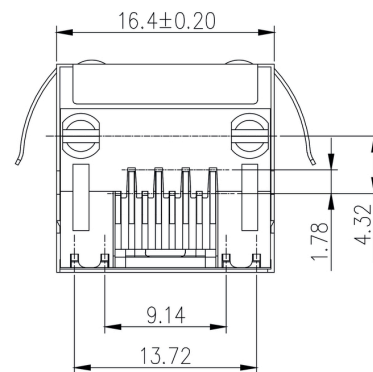
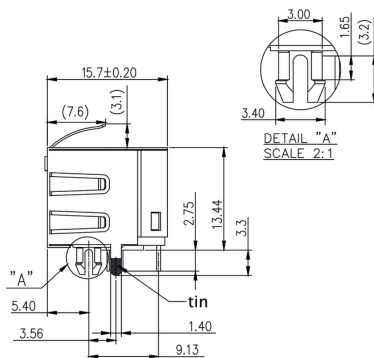
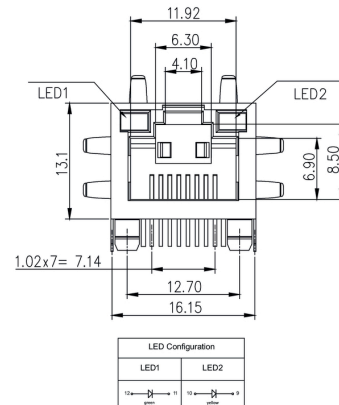
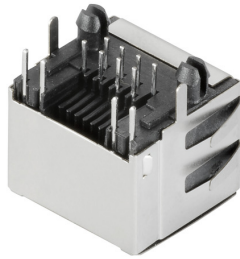
Approval/Certificate/Document of Conformity	Certificate of Compliance
Engineering Data	CAD data – STEP
Catalogues	Catalogues in PDF-format

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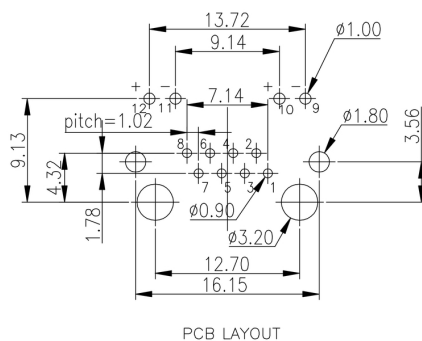
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Drawings



PCB design



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Drawings

Dimensioned drawing

RJ45	G1	R	1	U	3.2	E	4	GY/GY	TY	RJ45G1 R1U 3.2E4GY/GY TY
										Packaging
										TY
										RL
										Tray in box (manual assembly)
										Tape on Reel (automated assembly)
										LED
										Y/G
										Green/Yellow (standard)
										G/Y
										Green/Yellow/Green-Yellow
										GY/GY
										Orange/Green
										O/G
										Red/Orange
										R/O
										... (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
										Soldering process: Wave or Reflow soldering
										S
										Surface Mount Technology - SMT
										Soldering process: Reflow soldering
										T
										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+

Legend

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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.

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