

## RJ45C5 R1V 3.2N4G/Y TY

**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://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  $\geq 1500$  V AC RMS (2250 V AC peak value) according to IEEE 802.3
- Dielectric strength  $\geq 1500$  V AC (peak value) or  $\geq 1500$  V DC according to IEC 60603

Properties and advantages:

- Extended temperature range of  $-40^{\circ}\text{C}$  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	OMNIMATE Data - RJ45 modular jack, PCB plug-in connector, Cat. 5, THT/THR solder connection, 180°, none, Yes, Plugging cycles: 750, Number of poles: 8, PA 9T, 30...80 $\mu\text{m}$ Ni / $\geq 30$ $\mu\text{m}$ Au , Tray
Order No.	<a href="#">2516380000</a>
Type	RJ45C5 R1V 3.2N4G/Y TY
GTIN (EAN)	4050118529944
Qty.	120 items
Packaging	Tray

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## Technical data

### Approvals

Approvals	CURUS
ROHS	Conform
UL File Number Search	<a href="#">UL Website</a>
Certificate No. (cURus)	E471884

### Dimensions and weights

Depth	16.7 mm	Depth (inches)	0.6575 inch
Height	20 mm	Height (inches)	0.7874 inch
Height of lowest version	16.5 mm	Width	16 mm
Width (inches)	0.6299 inch	Net weight	7.32 g

### Environmental Product Compliance

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

### System specifications

Number of poles	8
LED	Yes
Solder pin length (l)	3.2 mm
Mounting onto the PCB	THT/THR solder connection
Pitch in inches (P)	0.050 "
Shielding material	Brass
Shielding	Yes
Side termination, characteristic	Solder flange
Solder eyelet hole diameter tolerance (D)	± 0.1 mm
Number of solder pins per pole	1
Type of connection	Solder connection
Solder eyelet hole diameter (D)	0.9 mm
Category	Cat. 5
Product family	OMNIMATE Data - RJ45 modular jack
Pitch in mm (P)	1.27 mm
Protection degree	IP20
Plugging cycles	750
Wiring	8-core
Outgoing elbow	180°
Forward current	20 mA
Forward voltage, max.	2.6 V
Shield surface	nickel-plated
Colour of right LED	yellow
Shield tabs	none
Performance-Category	Cat. 5
Soldering process	Reflow soldering, Manual soldering, Wave soldering
Solder pin dimensions	Octagonal
Solder pin length tolerance	Lower tolerance with prefix (reveals minimum) -0.5
	Upper tolerance with prefix (reveals maximum) +0.5
	Tolerance, unit mm
Solder pin length tolerance	+0.5 / -0.5 mm
Tolerance of solder pin position	± 0.1 mm
Forward voltage, min.	1.8 V
Colour of left LED	green

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## Electrical properties

Dielectric strength, contact / shield	1500 V DC	Dielectric strength, contact / contact	1000 V DC
Volume resistance	<25 mΩ	Insulation resistance	≥ 500 MΩ
Nominal voltage	125 V	Rated current	1.5 A
PoE / PoE+	conforming to IEEE 802.3at		

## 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	Insulation resistance	≥ 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	Tray	VPE length	315.00 mm
VPE width	190.00 mm	VPE height	65.00 mm

## Important note

Notes

## Classifications

ETIM 8.0	EC002637	ETIM 9.0	EC002637
ETIM 10.0	EC002637	ECLASS 14.0	27-46-02-01
ECLASS 15.0	27-46-02-01		

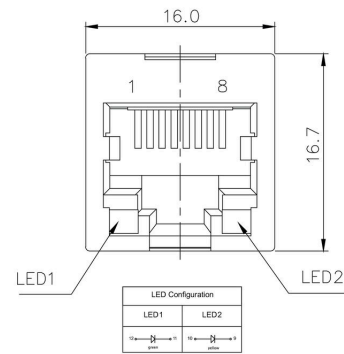
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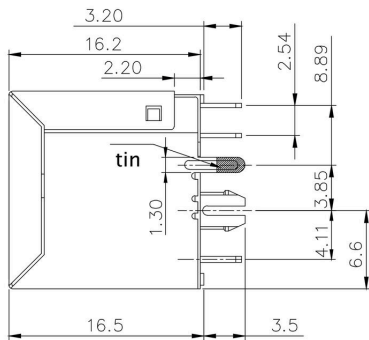
Drawings

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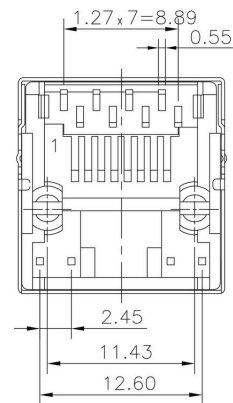
Dimensioned drawing



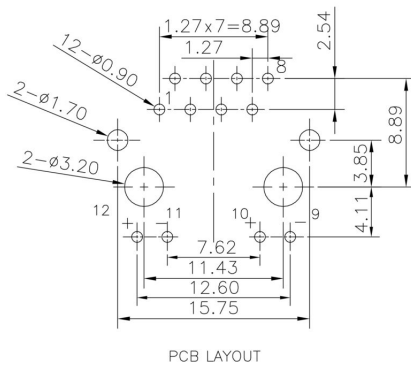
Dimensioned drawing



Dimensioned drawing



PCB design



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Drawings

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Code	Value	Description
RJ45	G1	RJ45G1 R1U 3.2E4GY/GY TY
R	1	Through Hole Reflow - THR
U	3.2	Solder Pin length: 3.2 mm
E	4	Contact surface thickness: 4 μm
GY/GY	TY	LED: Green-Yellow/Green-Yellow
		<b>Packaging</b> TY: Tray in box (manual assembly) RL: Tape on Reel (automated assembly)
		<b>LED</b> 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
		<b>Contact surface thickness</b> 4: 1 = 3μm, 2 = 6μm, 3 = 15μm, 4 = 30μm, 5 = 50μm
		<b>EMI tabs (ground fingers)</b> E: E = with EMI tabs N: N = without EMI tabs
		<b>Solder Pin length</b> 3.2: 3.2 mm 1.6: 1.6 mm D: SMD
		<b>Direction, latch style</b> U: Horizontal (90°, side entry), latch up D: Horizontal (90°, side entry), latch down V: Vertical (180°, top entry) Y: Diagonal (45°), latch up
		<b>Number of Ports</b> 1: 1 Port 12; 14; ...: multi ports side by side, Multiport 21; 41; ...: multi ports about each other, Multilevel
		<b>Assembly on PCB</b> R: Through Hole Reflow - THR S: Soldering process: Wave or Reflow soldering SMT: Surface Mount Technology - SMT T: Soldering process: Reflow soldering TIT: Through Hole Technology - TIT Wave: Soldering process: Wave
		<b>Performance Category</b> 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