

**Description:**

Industrial Gigabit (10/100/1000Base-T) single port RJ45 vertical/ top entry integrated magnetics connector, designed to support applications, such as embedded automation and drive control, wall and panel mount HMI and outdoor networks.



- Ⓢ Exceeds IEEE 802.3au specification for 1000Base-T
- Ⓢ 350μH minimum OCL with 8mA bias current
- Ⓢ Rugged Industrial Temperature range -40 to +85°C
- Ⓢ Fully conforms to RoSH-6 without exemptions
- Ⓢ Replaces JD3/JXD3-0002NL and JD3/JXD3-0001NL

**Electrical Specifications @ 25°C - Operating Temperature -40°C to +85°C<sup>3</sup>**

| Part Number | LEDs <sup>1</sup> | Speed         | EMI Tabs | Insertion Loss<br>max<br>(dB) | Return Loss<br>(dB MIN)<br>100Ω (±15Ω) |           |           |            | Cross Talk<br>(dB TYP) |           |            | Common Mode<br>Rejection<br>(dB TYP) | Hipot<br>(MIN) |
|-------------|-------------------|---------------|----------|-------------------------------|----------------------------------------|-----------|-----------|------------|------------------------|-----------|------------|--------------------------------------|----------------|
|             |                   |               |          | 1-125 MHz                     | 1-40 MHz                               | 40-60 MHz | 60-80 MHz | 80-100 MHz | 1-10 MHz               | 32-65 MHz | 65-100 MHz | 1-100 MHz                            | 60 Secs        |
| JXD3-0Z02NL | Y/G               | 10/100/1000BT | N/A      | -1.2                          | -16                                    | -12       | -10       | -8         | -40                    | -35       | -30        | -30                                  | 2250VDC        |

Notes: 1. LEDs Left/Right G = green, Y = yellow

**RJ45 Durability Testing Rating**

| Part Number | Mating Force<br>(MAX) | Unmating Force<br>(MAX) | Durability     | Plug to Jack Retention<br>(MIN) |
|-------------|-----------------------|-------------------------|----------------|---------------------------------|
| JXD3 Series | 5 lbs./2.268 kgs.     | 5 lbs./2.268 kgs.       | 750 Insertions | 20 lbs./9.072 kgs.              |

**RJ45 Material Specification**

| Part Number | Shield       |                            | Contact         |                                           |                              | Housing       |               | MSL <sup>2</sup><br>Rating |
|-------------|--------------|----------------------------|-----------------|-------------------------------------------|------------------------------|---------------|---------------|----------------------------|
|             | Material     | Finish                     | Material        | Plating Area                              | Solder Area                  | Material      | Specification |                            |
| JXD3 Series | Copper Alloy | 30-50μ inches thick nickel | Phosphor Bronze | 30μ inches gold over<br>50μ inches nickel | Tin matte finish over nickel | Thermoplastic | UL 94 V-0     | 1                          |

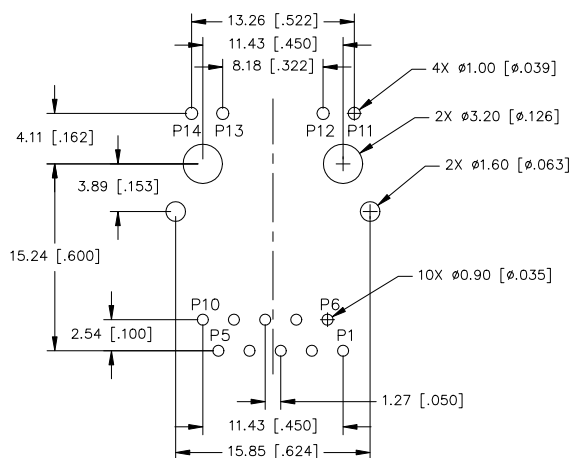
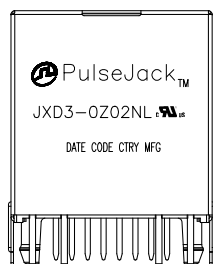
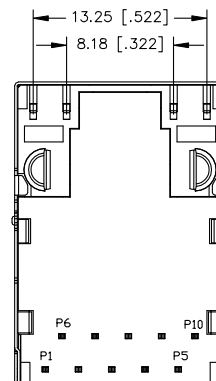
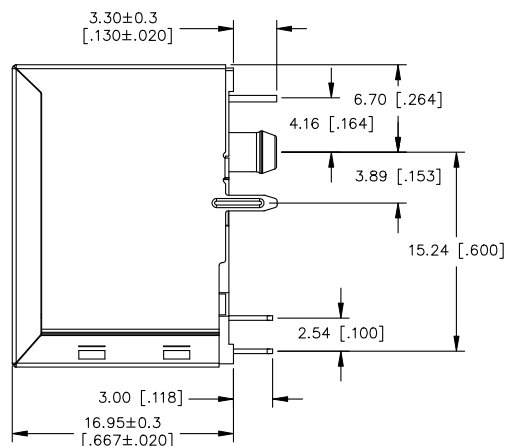
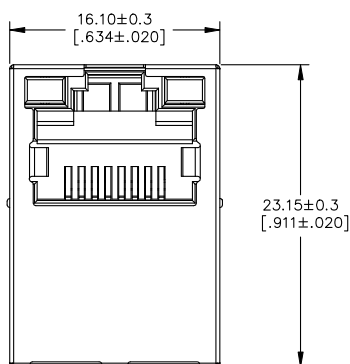
Notes: 1. Connector dimensions comply with FCC dimension requirements.

2. MSL - Moisture Sensitivity Level

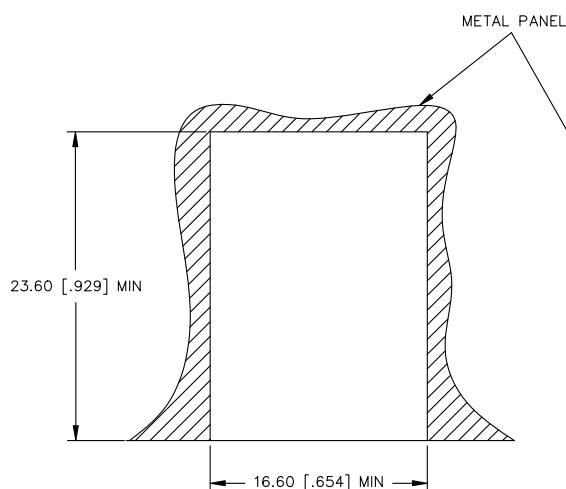
3. Storage Temperature; -40 to +85°C

## MECHANICALS

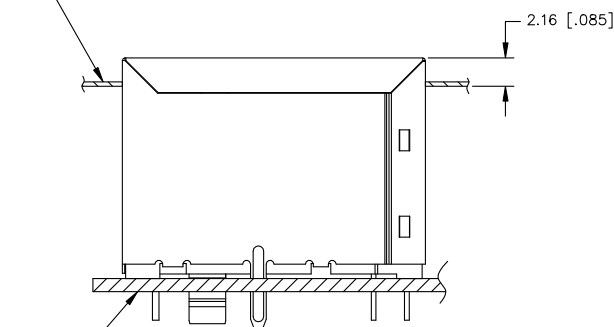
### JXD3-0Z02NL



**PCB LAYOUT**  
(Top component side shown)



**PANEL CUTOUT**

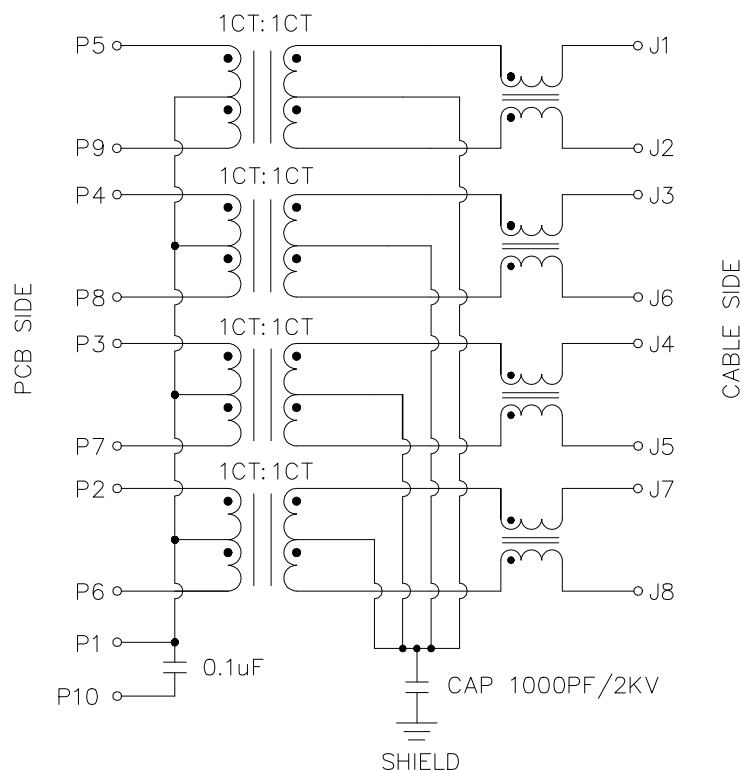


**PCB MOUNTING**

**Dimensions:**  
Unless otherwise specified,  
all tolerances are  $\pm 0.25$

## SCHEMATICS

## JXD3-OZ02NL



## JXD3-OZ02NL LED's



| EMITTED COLOR                        | GREEN      | YELLOW     |
|--------------------------------------|------------|------------|
| WAVELENGTH (nm)                      | 570        | 590        |
| POWER DISSIPATION (Pd)               | 105 mW MAX | 105 mW MAX |
| DC FORWARD CURRENT                   | 20 mA MAX  | 20 mA MAX  |
| I <sub>r</sub> @ V <sub>r</sub> = 5V | 10uA Max   | 10uA Max   |
| FORWARD VOLTAGE (VF) @ 20 mA         | 1.8 ~2.4V  | 2.1V TYP   |

Note: Per Vendor Specification

## For More Information:

Americas - [prodinfo\\_network\\_americas@yageo.com](mailto:prodinfo_network_americas@yageo.com) | Europe - [prodinfo\\_network\\_emea@yageo.com](mailto:prodinfo_network_emea@yageo.com) | Asia - [prodinfo\\_network\\_apac@yageo.com](mailto:prodinfo_network_apac@yageo.com)

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