ix Industrial™

IEC 61076-3-124  IEC Standard, The Next-Generation Industrial Transmission Connector

Compact

Robust

CAT 6A
 Advance with ix Industrial™

Industrial Connector for the Future of Factories

The ix Industrial is the next-generation connector for Ethernet and other industrial equipment transmissions. The small, robust design makes ix Industrial ideal for use in industrial environments. The high-speed transmission design together with the IEC 61076-3-124 standard-compliant interface contribute to equipment evolution and smart manufacturing applications.

Are you experiencing these obstacles?

Existing connectors are too big and don't allow for free use of the mounting space...

It takes such a long time to transmit a large amount of data...

The connector breaks so easily...

ix Industrial can solve them!

1. Compact

Smaller Size, Greater Design Freedom

Are you frustrated with the size of the connector you are currently using?

The ix Industrial offers a size reduction of 75% compared to RJ45. The right-angle receptacle provides an even greater height reduction. Furthermore, the upright right-angle and vertical receptacle types allow for 10mm pitch parallel mounting. The ix Industrial enables greater board design flexibility and is ideal for space reduction.

2. Robust

Breakage Prevention

With ix you won’t have to replace the connector due to damage.

The metal lock latches won’t break, and the shell is through-hole mounted. The design reduces stress to the SMT leads while preventing breakage from prying. The ix Industrial was designed with vibration and impact resistance in mind.

3. High Speed

Supports a Wide Range of Transmission Speeds

High speed, high capacity Cat.6A performance.

The ix Industrial makes stable high-speed transmission of Cat.5e (1 Gbps/4 Pairs) and Cat.6A (10 Gbps/4 Pairs) a reality. It is also used in a variety of applications, from Ethernet in FA equipment to medical devices. Many major manufacturers use the ix Industrial.

Additional Feature

Superior Noise Resistance

The ix Industrial does not transmit or receive noise.

The shell is crimped together and comes into direct contact with the receptacle’s ground spring for shielding. The ix Industrial can be used safely in any operating environment.
### Specifications

<table>
<thead>
<tr>
<th>Connector Type</th>
<th>Plug</th>
<th>Right Angle Plug</th>
<th>In-line Jack</th>
<th>Receptacle</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Solder</td>
<td>IDC</td>
<td>Solder Downward Cabling</td>
<td>IDC Downward Cabling</td>
</tr>
<tr>
<td>Network Type (Key)</td>
<td>A: Ethernet</td>
<td>B: Non-Ethernet</td>
<td>C (Under Development): Ethernet</td>
<td>A: Ethernet</td>
</tr>
</tbody>
</table>

- **Rated Current**: 1.5A/pin (All pins), 3.0A/pin (Pin No. 1, 2, 6, 7)
- **Rated Voltage**: 50V AC/60V DC
- **Withstanding Voltage**: 500V DC for 1 min. (IK61G2 Between Signal and Shield: 2250V DC for 1 min.)
- **Mating Durability**: 5,000 times
- **Operating Temperature**: -40 to +85°C
- **Cable Size**: 22 - 28 AWG, 22 - 28 AWG* (Note: For the 22 AWG compatible IDC plug, cable assembly is possible up to Ip6x. Contacts No. 3 and 8 do not have a hole to pass the cable through the IDC guide.)

### Application Examples

- **Servo Amplifier**: Compact design allows high density mounting, Noise protection
- **Camera**: Certified GigE Vision* interface standard for machine vision
- **PLC**: Allows size reduction and high speed transmission
- **Robot Controller**: Robust design ideal for use at manufacturing sites

*GigE Vision* is a registered trademark of the AII (Association for Advancing Automation).

### RJ45 Plug Compatible with ix Industrial Cable Assemblies (TM61P Series)

The TM61P Series is an RJ45 modular plug supporting Cat.6A transmission. With an applicable cable size (sheath diameter) of ø6.0-6.5mm that is compatible with the ix Industrial, the TM61P Series is ideal for when you want to attach an RJ45 to the opposite side of an ix Industrial cable assembly.

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**ix Industrial™ Special Site**

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