Specifying a Connector

10 Top Tips

Since 1987, Martec has supplied performance engineered interconnection solutions for critical, specialist applications that operate in harsh and demanding environments.

10 Top Tips for specifying a connector
Martec has considerable experience in designing, developing, qualifying and manufacturing customised - interconnection solutions for your critical applications. If you need to specify a custom interconnect for your project, these Top Tips will help you to prepare a clear and precise brief for our design team.
1. How many individual conductors?
   Consider including a number of redundant conductors to accommodate any system developments you have planned for the future, or to comply with specified growth provisions.

2. What are the electrical requirements?
   Work out a steady state and peak requirement for both the current and voltage.

3. What connector standard do you require?
   If you have a preference, remember to specify the standard (e.g., MIL-DTL-26482) and associated series.

4. What electrical testing will you need?
   Examples include the breakdown voltage and the insulation resistance of the finished product.

5. How will your connector be attached?
   Will it be secured with a basic flange mount, for example, or jam nut or welded in place?

6. What are your cable interface requirements?
   Options include crimp and solder. Note that gold-plated solder contacts should either be desoldered before installation, or appropriate plating thickness specified, to avoid solder embrittlement. Be sure to include any instructions for screen termination.

7. What are your plating requirements?
   Hard gold, soft gold and tin are typical plating materials. Please contact Martec if you wish to discuss alternative finishes for your conductors or shell.

8. Are there any environmental factors?
   If your application will be operating in a harsh or hostile environment (exposed to shock, vibration, thermal changes or extreme temperatures, for example) these will need to be factored in to the design.

9. What are the qualification requirements?
   If qualification is required, are appropriately decomposed requirements available? Martec can perform most qualification tests, at appropriate levels of assembly.

10. Do you require any permanent markings?
    Think about any additional markings your product will need (over and above those required by the relevant standard) such as a bar code.