



Blog Post

How to tell when you need a rugged optical fiber connector

Whether it's at the top of a communications mast, on a building site or at the bottom of the sea, optical fiber can now be found just about anywhere. These delicate strands of glass fibers are the ideal way to transmit information over vast distances at the speed of light, but as the demands for communications in harsh environments increase, so do the requirements for tough fiber optic connectors.

Before deploying a solution, engineers will need to consider the realities of the environment in which the connectors will be placed. Is your connector likely to be exposed to any of the following conditions?

- Dirty, dusty or muddy environment
- Splashed, sprayed or even submersed with water
- Exposed to direct sunlight
- Exposed to freezing temperatures
- Possibility of being chewed by rodents
- Exposed to marine environment/saltwater spray
- At risk of being pulled, bumped, dropped or stepped on

If the answer is yes to any one of these points, it's essential to consider all the options on the table to make the optical fiber connection more impervious to the elements.

Choosing a reliable rugged optical fiber connector that's impervious to water, dust, temperature and shock will ultimately offer a return on investment. The downtime and maintenance costs that can be saved by preventing contamination or damage to these fragile fibers can add up to a large amount over the years. By ensuring the absolute security of the connection, you also eliminate the need to build any bulky enclosures around them.

There are a few different types of rugged connector out there on the market, but it's important to choose one that offers the best type of protection required by the application in question. One important factor would lie in choosing a rugged connector with a standardised connection that does not require specialist equipment or engineers to terminate the connections.

Bulgin's [4000 Series](#) of fiber connectors accommodate industry standard LC interfaces – and with a diameter of just 19.7mm and a length of 80mm for both the flex and flex in-line options, it's the smallest rugged LC connector available today. Once assembled, the fiber connection is UV resistant, salt spray resistant and sealed to IP68 and IP69K, offering excellent protection even when submersed in water.

For more information, visit <http://www.bulgin-fiber-connector.co.uk/>

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About Bulgin:

Bulgin manufactures a range of industry-leading rugged connectors, fuse holders, battery holders, switches and indicators designed for use in the most challenging of environments. Headquartered in Cambridge, UK, Bulgin also has offices in all key global regions and an extensive sales and distribution network spanning 65 countries. Its manufacturing facilities are based in the UK and Tunisia.

Visit <http://www.bulgin.com/> for more information.