

[HOME](#) 'QUICK' CONNECTORS PROVIDE SOLUTION FOR MULTI-CHANNEL FIBER IN EXPLOSIVE ATMOSPHERES

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## 'Quick' Connectors Provide Solution for Multi-channel Fiber in Explosive Atmospheres

As automation continues to expand into diverse industrial sectors, the demand for multi-channel fiber optic cable is following suit. However, there is an increasing need for high-count, high-bandwidth fiber, capable of delivering the ever-increasing amount of data required in a single cable. This requirement is often most pressing in locations where space limitations simply won't permit installation of extensive runs of low-count fiber, such as offshore platforms.

In addition, for sectors like oil and gas there is a considerable advantage to installing pre-terminated plug-and-play quick connectors that meet the recently-adopted international standards for explosive atmospheres.

As an example, fiber is increasingly being used in upstream exploration and production where land-based rigs are often moved, the ability to quickly change and reconfigure fiber cables can save considerable time and costs. Also, since offshore rigs cannot afford the time and cost of helicoptering in a fiber technician every time a cable requires servicing or replacement, quick-connect/disconnect connectors save on both service and downtime.

Another situation that often requires addressing is the need to make frequent changes to fiber cable configurations or service/replace cable when equipment is damaged. The use of pre-terminated fiber cable connectors that can quickly and easily be plugged in or unplugged can be very useful in both facilitating installation and avoiding prolonged service downtime.



Optical Cable Corp. says that “quick” connectors are an ideal solution for applications that require frequent teardown and setup.

In both offshore and land-based natural gas and oil rigs, multi-channel high-speed fiber optic cable is required to control automation as well as monitor equipment status and communicate predictive notifications when components are in danger of failing. Such capabilities create enormous cost savings by avoiding extended downtime due to catastrophic equipment failures.

Because these hazardous locations include sites with potentially explosive atmospheres, the risk of a catastrophic event should be taken into consideration. According to organizations that establish international safety requirements, the potential for fiber optics to cause ignition of explosive atmospheres presents a real hazard.

Optical Cable Corporation (OCC) says that “quick” connectors are an ideal solution for applications that require frequent teardown and setup. The company adds that quick disconnect systems such as the EZ-Mate can be highly beneficial in switching out frequently relocated and reconfigured applications such as land-based rigs as well as more efficiently servicing high damage areas on offshore platforms.

Without a quick connect-disconnect connector if the equipment is damaged and must be moved, or if the cable has to be moved when the rig is moved, the only option is to cut the cable and then re-splice it. However, since most offshore rigs do not have a fiber technician on board, such repairs would mean having to helicopter a service technician to the site, resulting in added costs and downtime. •