BRUGG Defence & Security – White Paper

Individual Cable Marking by Brugg Cables

Introduction

In military operations the demand for real-time applications, like video surveillance or video conferencing etc. in C4I systems are increasing enormously. Tactical fiber-optic cable assemblies are today a reliable communication means in the military field, fulfilling these requirements. On one fiber-optic link large data flows of up to 1 GBit/s can easily be transported between different communication centers.

What happens if the data flow is interrupted or heavily constricted?

The Individual Cable Marking shows:

- Identity of the cable in a bulk of cables
- Effective length of the cable
- Cable length left on the reel
- The exact point of intervention in case of failure
- And supports your logistics

It supports repair and logistics of deployed tactical cables



Application

In the harsh environment of military applications more and more tactical fiber-optic cables are used, due to high data rates possible over large distances. - Individual Cable Marking identifies the cable in a bulk of cables and supports your logistics -

The tactical fiber-optic cable assemblies supplied on hand reels or vehicle reels depending on the length of the cable are normally consisting of a tactical cable with hermaphroditic expanded beam fiber-optic connectors at both ends, designed to operate in harsh environments. - Individual Cable Marking shows the cable length left on the reel -

With the tactical hermaphroditic connectors there is no requirement for male / female adaptors and therefore both ends can be used equally. Several reels can be daisy chained together to make a longer link between two points. -Individual Cable Marking shows the length of the cable and helps to calculate the effective length -

In case of any connection difficulties or interruption in the cable the fault of such a link has to be found easily and quickly. This can be done with BRUMIL 810, Brugg's Tactical Cable Measuring Case (TCMC), which is based on a commercial available Optical Time-Domain Reflectometer OTDR. The measurement allows for the exact localization of the faults, e.g. in case of interruption or high attenuation of a fiber link. The distance of the defect fiber can be very accurately localized and the cable can then either be replaced or in emergency the cable can be repaired in the field with Brugg's repair kits, BRUMIL 860 or BRUMIL 880. - Individual Cable Marking shows easy the point of intervention -

Conclusion

The Individual Cable Marking helps to keep your tactical fiber-optic network operational and reliable.

