Grenada High-Temperature Logging Optical Cable Dimensions



Overview

GRENADA TEMPERATURE MEASURING OPTICAL CABLE. View results and find grenada temperature measuring optical cable specifications and manufacturers datashee.

Key Takeaways

High-temperature logging optical cables for Grenada applications are designed with reinforced protective layers, multiple fiber cores, and insulation capable of withstanding extreme temperatures, typically featuring diameters ranging from 0. 5 to 1. 5 inches depending on fiber count and reinforcement type.

Cable Construction and Materials

Grenada high-temperature logging optical cables are engineered for oil wells, gas wells, and geothermal environments, where temperatures can exceed 250°C. These cables often use solid foamed thermoplastic elastomer in place of traditional water-blocking gels, providing both thermal stability and mechanical protection. The fiber cores are typically arranged in loose tubes or concentric designs, with options including DryTech or grooved core tape configurations.

Mechanical Protection



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To withstand harsh downhole conditions, the cables are reinforced with corrugated steel tape, steel wire, or foamed thermoplastic elastomer, ensuring resistance to crushing, tension, and abrasion. For extreme high-temperature applications, some designs incorporate metal tubing encasing the insulated conductors, creating a high-pressure seal and eliminating the need for grease-filled cable heads. This design allows continuous operation at temperatures above 300°C and pressures up to 5,000 psi.

Typical Dimensions

While exact Grenada-specific dimensions vary by manufacturer and fiber count, typical high-temperature logging optical cables have the following characteristics: Outer diameter: 0. 5–1. 5 inches (12–38 mm), depending on fiber count and reinforcement layers Fiber count: Single-mode or multimode fibers, ranging from a few fibers to several hundred Coating layers: Optional hermetic carbon layer, high-temperature acrylate, and glass braid insulation for thermal and mechanical protection Tensile strength: Reinforcing wires with diameters ≥0.

035 inches, tensile strength 270–330 KPSI, often zinc-coated for corrosion resistance ApplicationsThese cables are suitable for downhole logging, geothermal monitoring, and high-temperature industrial environments, providing reliable data transmission under extreme thermal, pressure, and chemical conditions. The combination of metallic or dielectric reinforcement, high-temperature insulation, and optional hermetic coatings ensures long-term operational stability. In summary, Grenada high-temperature logging optical cables are robust, multi-layered systems with diameters typically between 0.

5 and 1. 5 inches, designed to protect optical fibers in extreme downhole conditions while maintaining high-temperature performance and mechanical integrity.

Article Content

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The High-Temperature Resistant Well Logging Optical Cable

The range of cables for direct buried installation includes all our four basic designs: concentric core, grooved core tape, DryTech and tape in loose tubes.The cables are reinforced with corrugated steel

High Temperature Cable | High Temp Cable | Eland Cables

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Our high temperature cable range includes tri-rated cables which are designed to endure continuous operating temperatures of 105°C and which are fully approved to British (BS), Canadian (CSA) and

Optical fiber logging cable Special cable

Optical fiber logging cable is a type of cable used in oil and gas well logging applications. It is designed to provide high-speed data transmission over

Permanent fiber-optic cable

One optical fiber provides temperature measurements every 0.5 m [about 1.6 ft] along its length, producing a profile of temperature effects along the production string and—when applicable—across

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The Electronic Sensor GmbH, based in Heilbronn, is a competent company in the field of contact temperature measurement with customized temperature sensors such as thermocouples and

Optical fiber assemblies for high temperature environments

For this type of application, we offer silica/sapphire assemblies for parts located in your high-temperature environment, as well as the use of sapphire windows at the end of your assembly to protect the

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TC Ltd offer a range of temperature measurement products including general thermocouples, mineral insulated thermocouples, thermocouple cables, thermocouple connectors, platinum resistance...

Fiber Optic Cables

By working closely with our partners, Fibercore ensures that our designs meet the rigorous requirements of wireline logging cables in regards to temperature, corrosion resistance and strength.

Long-term High Temperature High Pressure Cable for Geothermal Logging

While a full study was conducted on the conductor/fiber cable, the evaluation of the four-conductor cable remained incomplete. With the increasing need for long-term high-temperature (HT) operation of

Application of optical-fiber temperature logging

A high temperature fiber optic strain sensor and high temperature pipe loading test facility has been developed, and the first reported results from a pipe strain test at 1100°F using OTDR are ...

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Cable Logging? Optical Fiber Logging?--JASON is ready for you!

Difference between Optic-Fiber logging and traditional cable logging The electrical-based sensors used in cable logging can not work continuously in harsh downhole environments (high temperature, high

A High Data Rate Fiber Optic Well Logging Cable

This development has led to a new logging cable with superior mechanical properties, containing eight electrical wires and three optical fibers with a data rate of at least 10 Mbitsl second each. This fiber

Optical fiber logging cable Special cable

It is specially designed to work in high-pressure, high-temperature, and harsh chemical environments associated with the oil and gas industry. In comparison to traditional wireline cables,

Dakota--Temperature Logging 1--Introduction

For the application of continuous, high-resolution temperature logging for scientific purposes, two major types of logging tools are used currently: (1) conventional "electric-line" systems with real-time

Borehole Optical Fibre Distributed Temperature Sensing vs ...

This expertise helps to locate and monitor geothermal installations as well as observe diverse aspects of natural and man-made thermal effects. Temperature measurements were

Downhole Logging

Wireline cables for downhole logging applications, delivering reliable power and data in high-pressure, high-temperature wells.

Wireline Fiber Optic Cable | Fibercore

Wireline Fiber Optic Cable Fibercore, in conjunction with selected partners, offer wireline logging cables that utilize Fibercore''s hydrogen resistant, high temperature fibers. The optical fibers are protected in

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