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NEWS RELEASE

ElectroniCast Consultants

10-Year Forecast – Fiber Optic Sensors

Continuous- and Quasi-Distributed fiber optics sensor systems are forecast to reach $8.47 Billion in 2028… and Point (Local) fiber optic sensors are forecast to reach $1.7 Billion in 2028.

Aptos, CA (USA) – May 30, 2019 -- ElectroniCast Consultants, a leading market/technology forecast consultancy, today announced the release of their market forecast and analysis of the global consumption of Fiber Optic Sensors. The market forecast data is presented and segmented in two main sections:

- Distributed Fiber Optic Sensor (Continuous and Quasi): System Level
- Fiber Optic Point (Local) Sensors: Component-Level

According to the study, during the 2018-2028 timeline, the worldwide consumption value of the combined use of Continuous- and Quasi-Distributed fiber optics sensor systems is forecasted to increase from $3.78 billion to $8.47 billion. Market forecast data in this study report refers to consumption (use) for a particular calendar year; therefore, this data is not cumulative data.

Distributed fiber optic sensors are counted as complete systems, which include several components (optoelectronic transmitter/receiver, connectors, optical fiber, cable (fiber jacket), other passive optical components, and enclosures; the quasi-distributed system also includes the FBG sensor elements).

Continuous Distributed sensing (system) provides continuous, real-time measurements along the entire length of a fiber optic cable; continuous distributed sensing does not rely upon manufactured sensors but utilizes the optical fiber.

Quasi-Distributed sensing (system) utilizes Fiber Bragg gratings (FBGs), which have been employed as sensing elements where dense (closely-spaced) sensing points are required, and the FBGs are multiplexed with various methods. The use of these FBGs are not “doubled-counted” in the Point Sensor market forecast data.

The Petrochemical/ Energy sector is forecast to hold onto the 1st-place market share position, until the year 2022 when the Civil Engineering/Construction application takes the lead. The Civil Engineering/ Construction sector, which includes continuous- and quasi- distributed fiber sensors used in Structural Health Monitoring (SHM) as well as

other concerns in buildings, roadways, railways, bridges, tunnels, towers, and other structures, is also forecast for strong growth. Inspection and quality control frequently constitute the largest portion of production costs for many industries. There is a growing need for reducing “false alarms” by improved measurement solutions, which offer higher precision, speed and accuracy and provide better in-process measurement of moving objects, resulting in lower costs for better products. The Military/Aerospace/Security is a strong user of security boundary sensors, and aircraft measurement sensors.

The Manufacturing/ Factory segment tends to favor point sensors instead of distributed fiber systems. Also, the Biomedical/ Science sector is a relatively minor user, in terms of consumption value, since the length of optical fiber is (very) short versus the other applications; therefore the average selling prices for the distributed continuous fiber optic sensor systems are low compared to the larger (longer length of optical fiber) distributed continuous fiber optic sensor systems used in other applications.

Monitoring and data transmission using fiber optic sensors and optical fiber in cabling is now commonplace in various applications, via Point (Local) sensor components/ modules or Distributed Continuous fiber optic sensors (complete) systems.

According to the ElectroniCast, the global consumption value of Point (Local) fiber optic sensors reached $1.15 billion last year (2018). The American region is forecast to maintain its leadership position in the Point fiber optic sensor marketplace through the year 2022, until the EMEA (Europe, Middle East, Africa) region, led by military/ aerospace applications, as well as biomedical/science and petrochemical/energy applications.

See Figure –

Last year (2018), the worldwide use of Distributed Fiber Optic Sensors Systems., which includes both Continuous- and Quasi-Distributed fiber optics sensor systems, reached $3.78 Billion. Segmented by major application categories, the market consumption value was led by the Petrochemical/Energy/Natural Resources/Utility sector, followed closely by the Military/Aerospace/Security sector.

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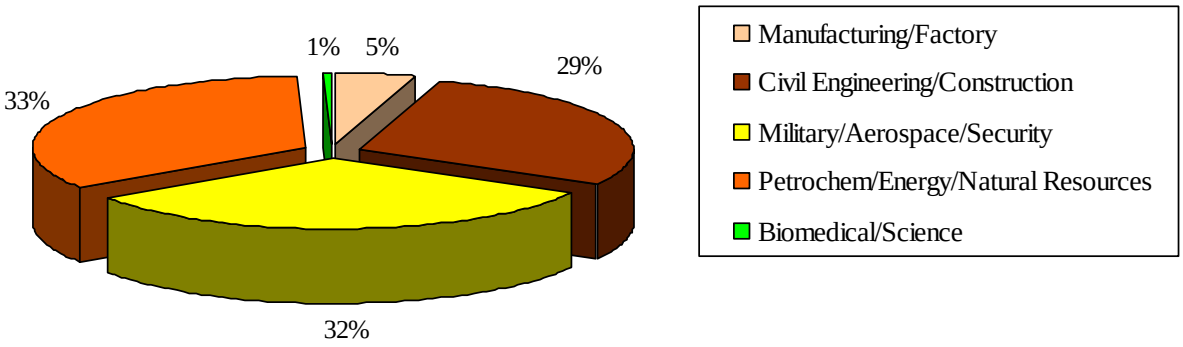
Distributed Fiber Optic Sensors Systems
Global Consumption Market Forecast, by Application (%)
Total Consumption in 2018 = $3.78 Billion
(Source: ElectroniCast Consultants)



This market forecast report is available immediately from ElectroniCast Consultants. For detailed information on this or other services provided by ElectroniCast, please contact Theresa Hosking, Marketing/Sales; thosking@electronicastconsultants.com
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Founded in 1981, ElectroniCast – www.electronicast.com specializes in forecasting trends in technology forecasting, markets and applications forecasting, strategic planning and consulting. ElectroniCast Consultants, as a technology-based independent forecasting firm, serves industrial companies, trade associations, government agencies, communication and data network companies and the financial community. Reduction of the risk of major investment decisions is the main benefit provided. ElectroniCast Consultants' goal is to understand the challenges and opportunities facing clients and to provide timely, accurate information for strategic planning.