

Belgian Fine Fiber Optic Sensor Company



Overview

Detailed info and reviews on 7 top Sensors companies and startups in Belgium in 2026. Get the latest updates on their products, jobs, funding, investors, founders and more.

Key Takeaways

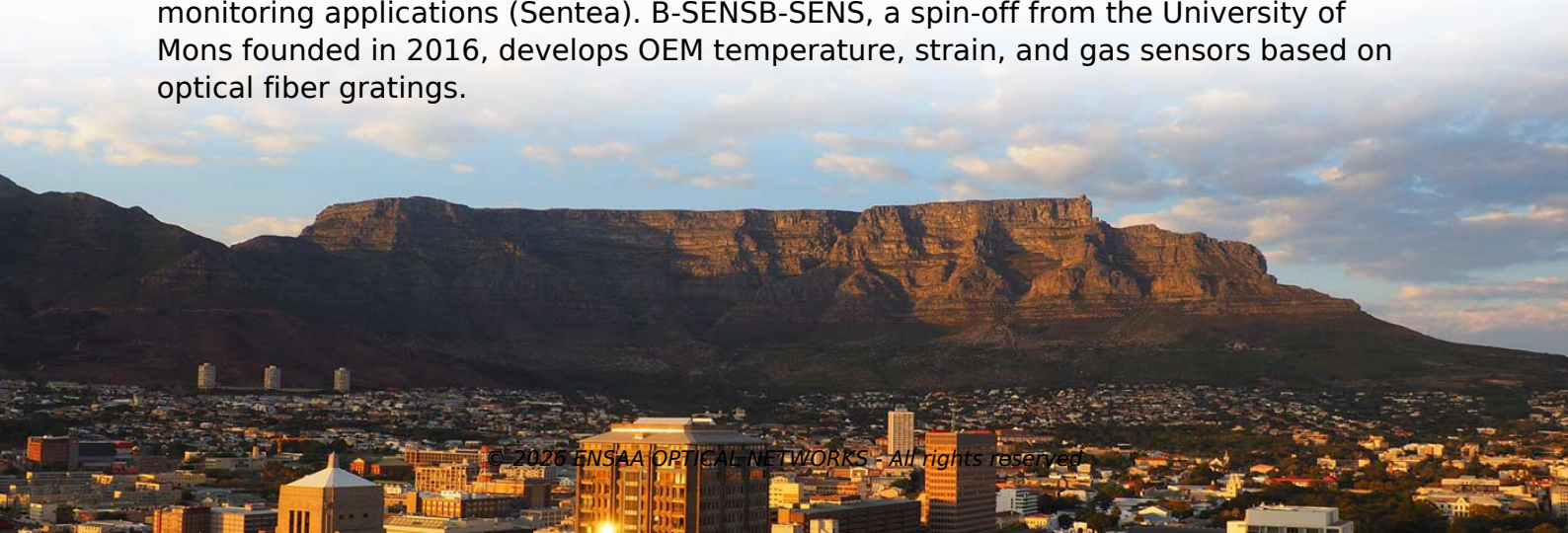
Leading Belgian companies in fine fiber optic sensors include Sentea, B-SENS, Com&Sens, and FBGS, specializing in FBG-based sensing solutions for industrial, civil, and research applications.

Sentea

Sentea, founded in 2018, originated from the Photonics Research Group at Ghent University and imec. The company commercializes over a decade of research in silicon photonics-based fiber optic sensors and interrogators.

Their FB

G sensors are used for structural health monitoring, predictive maintenance, and operational efficiency in sectors like wind energy, civil infrastructure, heavy industry, and transport. Sentea's sensors are robust, lightweight, and resistant to harsh environments, offering cost-effective and compact FBG interrogators for long-term monitoring applications (Sentea). B-SENSB-SENS, a spin-off from the University of Mons founded in 2016, develops OEM temperature, strain, and gas sensors based on optical fiber gratings.



Their solutions include turnkey read-out software for real-time data analysis and communication. B-SENS products are applied in monitoring furnaces, pipes, machines, buildings, aircraft, and wind turbines. They offer customizable FBG axial strain sensors, hydrogen leak detectors, early flame detection systems, and optical fiber interrogators with 8 to 64 channels, capable of temperature measurements up to 1050°C (B-SENS).

Com&SensCom&Sens focuses on embedded fiber optic monitoring for composite structures, providing predictive maintenance and lifecycle insights. Their FBG-based sensors are integrated into new or existing infrastructure to monitor load cycles, material degradation, and remaining lifetime. The company delivers real-time datasets through their GUARD software, enabling safer operations, condition-based maintenance, and early detection of structural issues, particularly in hydrogen storage systems and composite materials (Com&Sens).

FBGSFBG

S, with operations in Germany and Belgium, manufactures high-strength Fiber Bragg Gratings, interrogators, and custom fiber optic sensing solutions. They utilize automated production processes for Draw Tower Gratings (DTG®) and FemtoSecond Gratings (FSG®), ensuring high-quality, cost-effective components.

FBG

S serves industries including medical, transport, composites, civil engineering, and R&D. Their Belgian subsidiary combines German FBG manufacturing expertise with local application know-how, offering ISO9001-certified products and CE-marked medical devices (FBGS).

Summary

Belgium hosts a strong ecosystem of fiber optic sensor companies leveraging FBG technology for industrial, civil, and research applications. These companies provide robust, high-precision, and customizable sensing solutions for structural health monitoring, predictive maintenance, and process optimization, making them key players in the European and global fiber optic sensor market.

Article Content

About Sentea

FBG sensors outperform electric sensors, especially in harsh environments. Thanks to the use of silicon photonics, wind farms, civil structures, heavy industries and

7 Top Sensors Companies in Belgium · June 2026 | F6S

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Top 91 Sensor Manufacturers in Belgium (2026) | ensun

They offer a wide range of sensor products, such as strain gauges and transducers for measuring stress, weight, force, pressure, and temperature, as well as tailored Wireless Sensor Network

B-SENS – Creative sensing solutions

B-SENS is a spin-off company from the University of Mons in Belgium founded in 2016. It capitalizes more than 20 years of intensive research and development activities at the forefront.

We make composites structures intelligent, safe and connected

FBG Fiber optic sensing for composite structures. Com&Sens delivers embedded fiber optic monitoring, predictive maintenance, and lifecycle insights from development to operation.

Cutting-Edge Fiberoptic Sensing | FiSens GmbH

FiSens develops, manufactures, and markets accurate fiberoptic sensor solutions based on fiber Bragg grating (FBG) sensor arrays and fiber-integrated spectrometers.

Sentea N.V.

Sentea technology empowers fiber optic sensing for a wide range of applications, in markets including wind, oil and gas energy, civil infrastructure, heavy industry and transport. The company

Over 500,000 telecom lines connected to fibre optics in Belgium

A total of 559,000 lines were connected to high-speed internet via fibre optics, enabling speeds of at least 30 megabits per second (Mbps). This growth is largely due to increased coverage,

SENTEA Fiber Optic Sensing

Fiber optic sensing allows for highly accurate and robust structural health monitoring solutions, predicting and preventing failures even in the most harsh environments. Thanks to the use

SENTEA Fiber Optic Sensing on LinkedIn: #fibersensing # ...

Second day in Oostende for the Belgian Offshore Days. Thanks to the Belgian Offshore Cluster vzw for this great opportunity to meet and discuss with the

Top 100 Photonics Companies in Belgium (2026) | ensun

Discover all relevant Photonics Companies in Belgium, including EQIC - European Quantum Industry Consortium and imec

Top Fiber Optic Telecommunications Companies in Belgium

In Belgium, the Fiber Optic Telecommunications industry is shaped by several key considerations that potential stakeholders should be aware of. The regulatory environment is significant, as the Belgian

Fiber Optic Temperature Sensing and Measurement

Measure temperature with fiber optic sensors for high-resolution distributed and multipoint monitoring in batteries, processes, and harsh environments.

Fiber optic sensors and fiber optics | Baumer Germany

A fiber optic sensor and two fiber optics made of plastic or glass fibers make up a fiber optic system. The sensor contains a light source (transmitter), typically an LED, and a photodiode (receiver).

Top Sensor Companies In Belgium In 2026

Other notable sensor companies in Belgium include Barco, OnSemiconductor, and X-FAB. These companies are known for their innovative sensor technologies, high-quality products, and reliable

Banner Engineering | Smarter Automation. Better Solutions.

This article explains what fiber optics are and how they work in industrial applications. Learn important terms and the basics of fiber optic systems.

Tailored fiber optic sensing components & solutions

Tailored fiber optic sensing components & solutions. With our unique fiber optic technologies we offer high quality components and groundbreaking total

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The sensor industry in Belgium presents a dynamic landscape shaped by various factors. Regulatory compliance is crucial, as Belgium adheres to stringent EU standards concerning safety and

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

