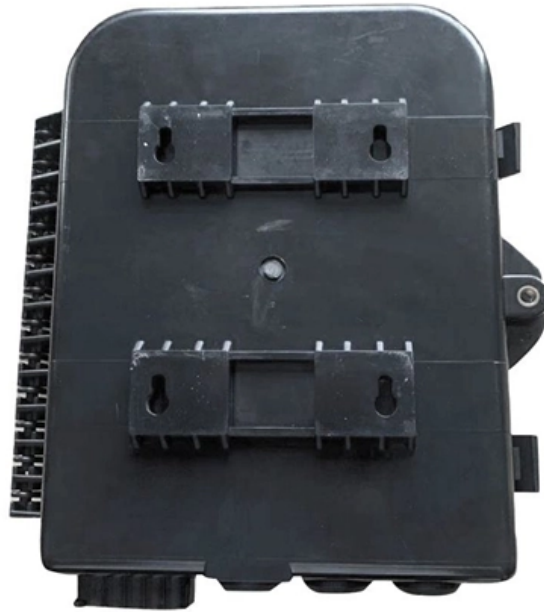


# Fiber Optic Sensor Turbo





## Fiber Optic Sensor Turbo

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Fiber optic laser Doppler distance sensor for in-situ tip clearance and vibration monitoring of turbo machines Pfister, Thorsten und Büttner, Lars und Czarske, Jürgen und Krain, Hartmut und Schodl,

## Turbo machine tip clearance and vibration measurements using a fibre

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This paper presents a novel fibre optic laser Doppler position sensor for single blade tip clearance and vibration measurements at turbo machines, which offers high temporal resolution and high position



## **Miniature fiber optic pressure sensors for turbomachinery applications**

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T1 - Miniature fiber optic pressure sensors for turbomachinery applications N2 - Development of pressure sensor for the instrumentation of experimental aerodynamic facilities has traditionally

## **A Fiber Optic Probe for Gas Total Temperature Measurement in**

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This paper describes the design, operation, construction, and demonstration of a new type of high-bandwidth unsteady temperature sensor based on fiber optics, and capable of operating in a

## **Figure 3 from Fiber optic laser Doppler distance sensor**

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Fig. 3: Modular and robust setup of the laser Doppler distance sensor (Pfister et al. 2006). - "Fiber optic laser Doppler distance sensor for in-situ tip clearance and

## Fiber-optic sensor

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A fiber-optic sensor is a sensor that uses optical fiber either as the sensing element ("intrinsic sensors"), or as a means of relaying signals from a remote sensor to the electronics that process the signals

## XVII IMEKO World Congress

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In addition, this sensor is not strongly influenced by coherent speckle noise and shading is reduced unlike triangulation . An all passive fiber optic measurement head makes the sensor flexible and



## **Volumes , Turbo Expo , American Society of Mechanical Engineers**

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A Robustness Assessment of a Fiber Optic Particle Sensor for Aerospace Turbomachinery  
Malcolm Overbaugh, Brandon Esquivias, Alice Li, Vincent McDonnell, Gregor A. Waldherr,  
Hai Lin

## **Miniature fiber optic pressure sensor for turbomachinery applications**

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T1 - Miniature fiber optic pressure sensor for turbomachinery applications N2 -  
Development of pressure sensors for the instrumentation of experimental aerodynamic  
facilities has traditionally concentrated

## **CASE STUDIES OF FIBER OPTIC ACCELEROMETER**

Download Citation , CASE STUDIES OF FIBER OPTIC ACCELEROMETER USED FOR END-WINDING VIBRATION MONITORING ON TURBO-GENERATORS , On-line monitoring of

## **Turbo Charger & Optical Sensor**

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OPTEL TEXYS: New Video: The use of fibre optic sensors designed and manufactured by OPTEL TEXYS allows access to a very accurate measurement of turbocharger rotation speed up to very

## **2.2**

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2.2 - Robust and Miniaturized Non-Incremental Fiber-Optic Distance Sensor for Turbo Machine Rotor Deformation and Vibration Monitoring Event SENSOR+TEST Conferences 2011 2011



## **TURBO EXPO 2023: TURBOMACHINERY TECHNICAL**

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Proceedings of ASME Turbo Expo 2023: Turbomachinery Technical Conference and Exposition (GT2023) Volume 4 June 26-30 2023 Boston, Massachusetts

### **Development of a Turbocharger Speed Sensor Using Fiber Optic**

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Therefore, the present study focuses on development of a new turbocharger speed measurement method using a Fiber Optic Coupled Optical Speed (FOCOS) sensor and assessment

### **Figure 1 from Fiber optic laser Doppler distance sensor for in-situ tip**

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Fig. 1: Two interference fringe systems with monotonously increasing (top) and decreasing (bottom) fringe spacing in axial direction, which are superposed in the same location in practice. - "Fiber optic

## **Turbo machine tip clearance and vibration measurements using a fibre**

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This paper presents a novel fibre optic laser Doppler position sensor for single blade tip clearance and vibration measurements at turbo machines, which offers high temporal resolution and

## **Fiber Optic Sensors: Types, Working Principle**

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Explore fiber optic sensors: their working principles, types (intrinsic, extrinsic, hybrid), and diverse applications in mechanical, chemical, and structural health monitoring.



## Fiber Optic Sensor

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Fiber optic sensors are defined as devices that utilize optical fibers to measure a variety of stimuli, including mechanical, thermal, electromagnetic, radiation, chemical, and flow characteristics. They

## Design validation of an air cooled turbo generator by using fibre optic

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Turbo generators have to face higher stress during operation without consuming additional life time. For the first time in a shop test a new generator design was extensively evaluated

## Optel Texys

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For 60 years, OPTEL-TEXYS has been the specialist of optical fibre speed sensors. The company enjoys worldwide recognition for its high-speed and accurate sensors in the market sectors of the

## **American Society of Mechanical Engineers**

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Therefore, a new turbocharger speed measurement method using Fiber Optic Coupled Optical Speed (FOCOS) sensor was developed and tested to assess its capabilities and limits.

## **Microsoft Word**

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For enabling tip clearance measurements at turbo machines under operational conditions (temperatures of upto 300°C, vibrations), a flexible and robust measurement system with an all-passive



## **Robust and miniaturized non-incremental fiber-optic distance sensor**

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We will give a thorough description of a robust, non-incremental fiber-optic distance sensor, which is only 20 mm in diameter and less than 100 mm in length. Simulative results of its numerical

## **New high-speed optical sensors for turbocharger speed**

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This has resulted in the integration and development of a variety of fiber-optic speed sensing systems, the latest of which is a highly compact unit

## **Figure 4 from Fiber optic laser Doppler distance sensor for in-situ tip**

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This paper presents a novel fibre optic laser Doppler position sensor for single blade tip clearance and vibration measurements at turbo machines, which offers high temporal resolution and high Expand

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