

Endoscopic fiber optic sensor



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These devices utilize thin and flexible fibers to transmit real-time images and light, allowing doctors to perform surgeries through small incisions. As a result, patients experience faster recovery ...



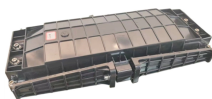
A scanning fiber endoscope is a technology that uses a flexible, small (< 6Fr) peripheral or coronary catheter to provide wide-field, high-quality, full-color, laser-based video imaging.



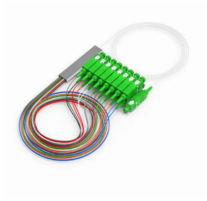
Bridging this gap, endoscopic direct and pixelation-free imaging is demonstrated via a unique optical fiber that mimics the functionality of a diffractive lens but is minimally invasive and ...



Optical fiber sensors in endoscopes let clinicians detect physical and chemical changes inside the body with impressive precision. They support things like shape tracking, pressure ...



While limited in terms of field-of-view and maximum working distance, the proposed 3D endoscope allows for a contact-limited working distance, longitudinal measurement resolution in the ...



The integration of fibre optics in endoscopy represents a significant leap in medical physics. This technology has enabled more precise diagnostics and treatments, leading to better patient outcomes.



Different actuation methods used in the design of small-sized cantilever-based endoscopes are reviewed in this paper along with their working principles, advantages and disadvantages, generated scanning ...



We present a sub-mm diameter multi-point endoscopic sensor for simultaneous measurement of the minimum distance and orientation of the sensor head with respect to a flat tissue ...



It combines a laser light source with a Digital Mirror Device (DMD), image fiber and advanced micro optics. Thereby a 7.5 times increased depth of focus of 3 mm compared to 0.4 mm with common ...



We leverage our extensive expertise with fiber optic-based systems to develop the miniaturization tools needed to offer novel optical fiber probes for examining and treating tissues and conducting ...

Contact Us

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