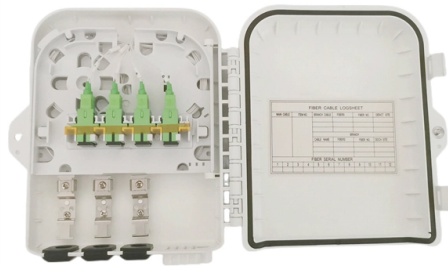


Micro-nano fiber optic sensing technology



Overview

On the one hand, the sensing and optical properties of micro/-nanofiber devices can be optimized by introducing different micro/nanostructures through micro/nano-processing technology (femtosecond laser processing, electron beam etching, ion beam engraving). On the one hand, the sensing and optical properties of micro/-nanofiber devices can be optimized by introducing different micro/nanostructures through micro/nano-processing technology (femtosecond laser processing, electron beam etching, ion beam engraving). Because of their strong surface evanescent field, micro/-nanofibers have been used to develop optical sensors and modulation devices with a high performance and integration. In recent years, they have become an important branch of optical fiber optics and novel sensors, and have received extensive. Micro/nanofibres (MNFs) are optical fibres with diameters close to or below the vacuum wavelength of visible or near-infrared light. Due to its wavelength- or sub-wavelength scale diameter and relatively large index contrast between the core and cladding, an MNF can offer engineerable waveguiding. Fiber-optic sensing technology has the advantages of passivity, anti-electromagnetic interference, long-distance measurement, high sensitivity and high accuracy, small size, and adaptability to harsh environments such as high-vacuum, high-pressure, and strong magnetic fields compared with the.



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