

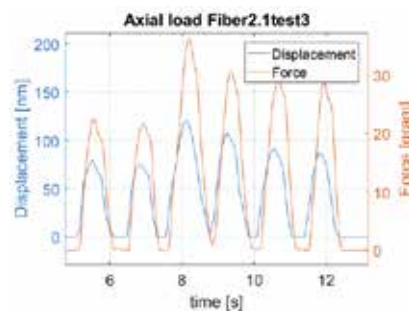


FORCE TRANSDUCER FOR CARDIAC INTERVENTIONS

The difficult relation between electricity and the human body introduces a lot of complexities into designing high-tech medical instruments. Especially instrument used in cardiac inventions. Fiber optic sensing, however, uses light for measurement and is therefore highly adequate for instrumentation for use in cardiac interventions. Together with medical partners, Technobis developed a force transducer to be used during cardiac ablations.

The contact between the catheter and the cardiac tissue introduces strain, stress and displacement in the fiber optic sensors and can be calculated into a force. Combines with a three axis design, the direction of the force can also be determined.

Recordings of a controlled force on the fiber tip resulted in an displacement accuracy of 1 nanometers, equivalent to 10 mili Newtons.



Gator



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