USE OF OPTICAL FIBER SENSOR AS A DIAGNOSTIC TOOL IN CATHETER-BASED MEDICAL DEVICES

Abstract

A blood pump system including an optical sensor configured to detect an optical signal during pumping operation of the blood pump, and an optical fiber configured to transmit the optical signal from the optical fiber sensor to an evaluation device communicatively coupled to the optical fiber sensor. The evaluation device is configured to receive as inputs the transmitted optical signal and a signal indicative of the motor current and determine a mechanical failure event associated with the blood pump based on the motor current and the optical signal.

[Fig. 6]