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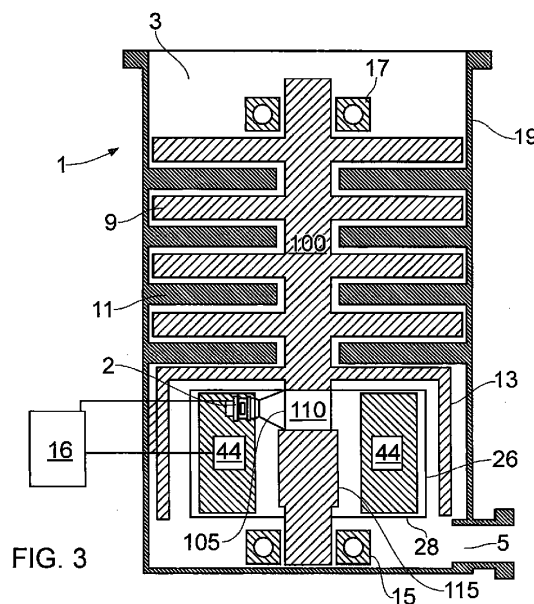
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(54) Title: INFRARED TEMPERATURE SENSOR FOR A HIGH SPEED ROTATING MACHINE



(57) Abstract: Infra-red sensors (2) are often used in turbo molecular pumps (1) to detect the temperature of the rotor (100) or other mechanical parts and therefore indicate imminent, or potential, running failures. As deposits build up on either the infra-red sensor, or on the surface being monitored, the reading given by the sensor may not be a true representation of the actual surface temperature which can cause the pump controller to fail to stop the pump in time. The present invention provides a method and device for calibrating the sensor by creating a determined temperature rise in the sensor whilst keeping the rotor at ambient temperature. In particular the present invention uses the motor stator (44) as the heater for causing the temperature increase.

[Continued on next page]

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