

For Nearly 50 Years

Kavlico has led the way when it comes to position feedback sensors for power generation turbines. Typical applications include modulating valves, actuators, and governors for both gas and steam turbine systems.





Kavlico's state-of-the-art, 285,000 square foot facility located on 40 acres in Moorpark, California, is ISO 9001 and QS-9000 registered and AS 9100A certified. Kavlico has earned the highest awards and honors for its quality systems and proven capabilities.

Our worldwide installed product base provides key measurements for power generation (gas and steam turbine) each and every day. Our aerospace, automotive, and industrial product groups round out our capabilities, providing sensors for a wide array of industry sectors.

Whether your requirement is for off-the-shelf sensors or custom designed products for high volume applications, Kavlico's capabilities are unmatched in performance, value, and overall performance.

If your application demands the best... then Kavlico not only has the solution, we have the Technology That Fits!

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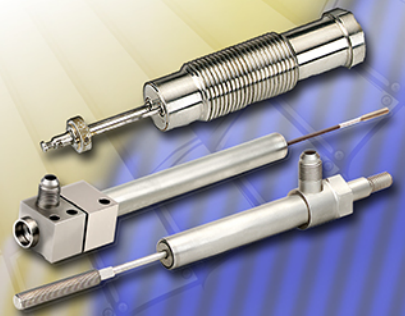
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Our Sensors Are The Solution!

KAVLICO CORPORATION

DISPLACEMENT SENSORS FOR POWER GENERATION APPLICATIONS



Gas Turbine Applications

LVDTs for gas turbine systems are generally externally mounted designs, either "block" or "bulkhead" mounted and usually single or dual feedback devices. The 4-wire designs have a 37-degree lead angle fitting per SAE standard "AS4395G06" as an exit closure for the wire conduit.

The various designs include all stainless steel sealed housings that add to the robust quality of the devices, for use in Zone 2, Hazardous areas.

Specific production designs are currently certified:

Factory Mutual approved for Intrinsically Safe, Non-Incendive applications.

IEC-CENELEC approved for Non-Incendive, Ex N IIC T3 applications.

IEC-CENELEC approved Non-Incendive, Ex N IIC T3, ETL Certified to CAN/CSA C22.2 No. 213, ETL Certified to UL Standard 1604.

ATEX Compliant:
Equipment Group II, Category 3 for use in Zone 2 applications.

Typical Performance Parameters

Excitation Voltage	7.0 VRMS
Excitation Frequency	3000 Hz
Electric Stroke	0.5" to 11.0"
Wave Form	Sine
Power Apparent	1.0 VA Max.
Load	10K Ohms
Linearity	±1.0% Full Stroke/ -65˚F to +350˚F
Signal Output	+0.7 VRMS to 3.5 VRMS



Rotary Transducers for Turbine Controls

In addition to LVDTs, Kavlico also supplies "Rotary Variable Differential Transformers" (RVDTs) in both single and dual tandem configurations for power plant use. This design group has been certified for:

North America: Class I, Division 2, Groups A-D
Europe: Eex nV II T3, SIRA 99Y4045X
ETL Certified to CAN/CSA C22.2 No. 213
ETL Certified to UL Standard 1604

These RVDTs can be upgraded to an "Intrinsically Safe" level by use of a Barrier Circuit Interface between the sensor and the power Source.

Caution Note: It is the responsibility of the system installer to review the need for any intrinsic safety barrier to limit the transfer of energy between the interface equipment and the RVDTs and LVDTs.

Steam Turbine Applications

Feedback control sensors for steam turbine applications utilize a slightly different winding design, using only 3-wires and are described as "Variable AC Impedance sensors." These devices have a 1/8 -14 NPT fitting as an exit closure for the wire conduit or a PT-02H-14-5P type connector and can either be "block" or "bulkhead" mounted.

The various designs include all stainless steel sealed housings that add to the robust design of the overall device. When used with a Kavlico Carrier Demodulator, P/N GM6244, specific designs can be considered as having a power and current limiting device per NEC Class 2.

Many production designs are currently certified: UL Listed (219Y), Telemetering Equipment for Hazardous Locations, Class I, groups B, C, and D.

Typical Performance Parameters

Excitation Voltage	3.0 VRMS to 24 VRMS
Excitation Frequency	60 Hz to 3000 Hz
Electric Stroke	+0.75" to + 26.0"
Linearity	± 0.2% F.S.
Temperature Range	-65˚F to +350˚F

