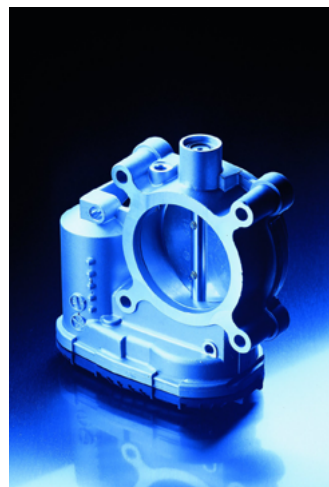


Position
Transducers and
Rotary Sensors
for Actuators and
Control Valves



GUEMISA

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Desde 1986 suministrando sensores e instrumentación
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Novotechnik Linear and Rotary Sensors accurately measure and control valves, provide the desired flow rate and monitor reliably and continuously the position of valve actuators. Thereby the sensors meet the highest requirements of precision and durability.

Process technology is getting more and more accurate and requires precise dosing. Flaps, slide or valve positions must be accurately detected and controlled in the complete working range. Due to their positive qualities and their favorable price-performance ratio, potentiometric linear and rotary sensors offer the ideal solution in many applications: for example position feedback for linear and rotary valve positioners.

Potentiometric sensors - Reliable even in high temperature environment

As an absolute sensor conductive plastic potentiometers provide accurate measurement results, are reliable and are not affected by harsh environmental conditions and high temperatures. They are suitable for temperatures between -40 °C and +150 °C. Therefore the use outside or in a „hot“ process environment is uncritical.

The analog output signals can easily be used in further processes. They are simple to convert in an impressed current or if necessary digitally conditioned. Since the signal is also available in real time without delay there are no dynamic problems even at high speeds. With an appropriate intrinsically safe supply, conductive plastic potentiometers are suitable as passive elements for use in hazardous areas, e.g. when the actuators are used in chemical or petrochemical plants.

Membrane potentiometer

Sensors based on membrane potentiometers are hermetically sealed, whereby dirt, dust, or moisture can not penetrate. Because the collector foil consists of a very resistant FR4 prepreg and is attached like a protection film to the resistive layer, the customer does not have to worry about damaging the sensor system.

Membrane potentiometers are suitable for use in ambient temperatures up to +125 °C. The structure of the measuring system with a rigid FR4 substrate has the advantage that smaller irregularities in the

substrate or dust particles have no influence on the measurement results.

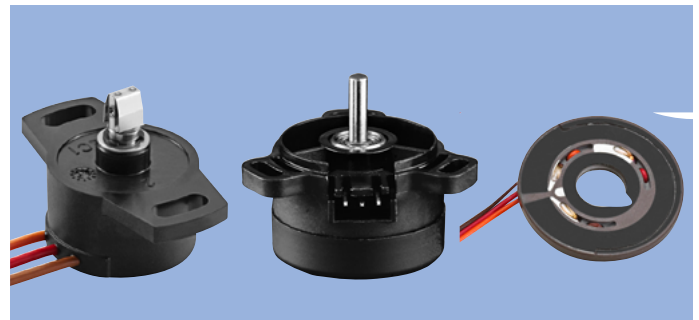
Magnetic and inductive transducers: almost maintenance- and wear-free

Because the lifetime of potentiometers is designed up to more than 50 million movements, the mechanical wear in conductive plastic potentiometers plays a minor role in reality. For higher requirements we can offer non-contacting or touchless linear and rotary sensors.

Novotechnik has a large selection of corresponding sensors with different operating principles such as inductive or Hall in the program. The compact Hall sensors are also available in versions with reduced power consumption. The fact that inductive sensors are completely insensitive to magnetic fields could also be an advantage in several applications. Another advantage of contactless sensors is that the output signals can be burdened more than potentiometers.

TÜV-certified angle sensor

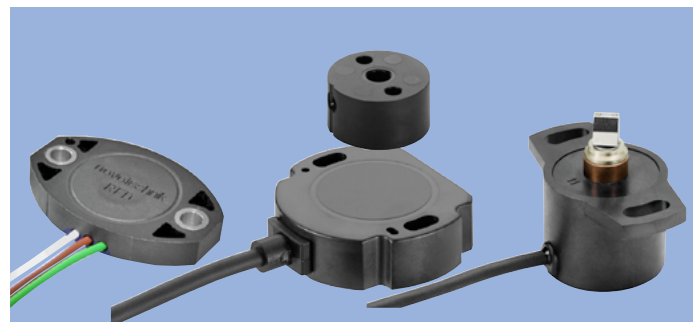
SP2800 series has been certified by German TÜV for use in automatic burners. Therefore this series can also be used for accurate and reliable position detection in electronic systems which are used for controlling and monitoring of fuel, air and ex-haust gas streams.



Potentiometric Rotary Sensors, series SP2800, SP2500 and PRS

For harsh environmental conditions, as well as redundant version. With housing or as open design for integration for example in actuators.

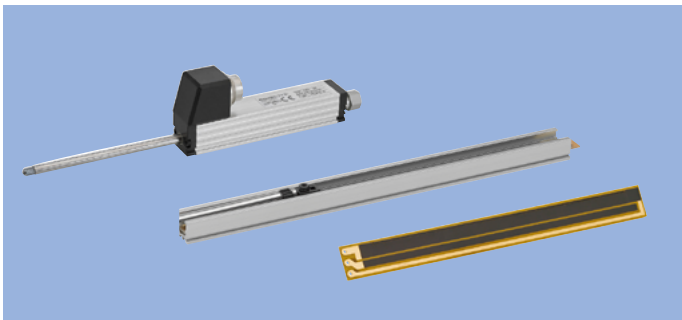
- various types
- selectable resistance values for low power consumption
- integrated switching functions
- redundant designs for safety-critical applications
- excellent repeatability



Touchless NOVOHALL Rotary Sensors, series RFD and RFC, contactless NOVOHALL Rotary Sensors series RSC.

Rugged and compact for direct mounting or integration into angular measurement systems, even under extreme conditions.

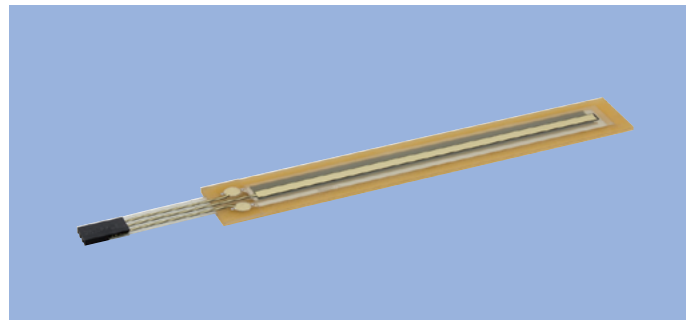
- extremely robust, can also be used in exposed outdoor locations
- long life due to non-contact measuring principle
- compact dimensions
- cost effective
- customized versions
- low power versions for reduced power consumption



Potentiometric Linear Transducers as a complete unit, series T / TS, in modular design series PTP and PTN series as resistance elements.

For reliable and accurate measurement in protected applications: from the open element for installation in enclosed devices and module types up to complete devices for mounting with multiple mounting options.

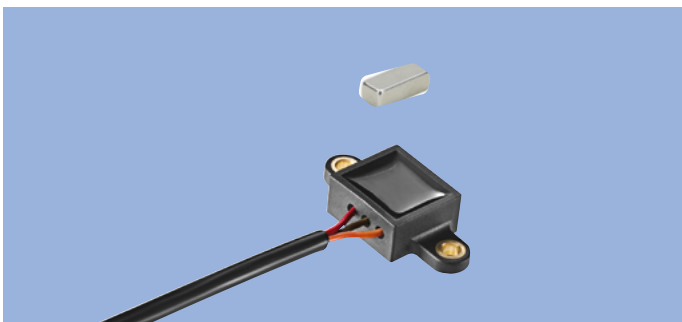
- good price performance ratio
- customized shapes and stroke lengths in open design versions
- large variety of mounting options



NOVOFOIL - Potentiometric Sensors with membrane collector series LFP (pin actuator) and LFM (magnetic actuation)

Using membrane design technology we developed sealed potentiometer elements with long life. A spring loaded pin or a magnet substitutes the conventional wiper.

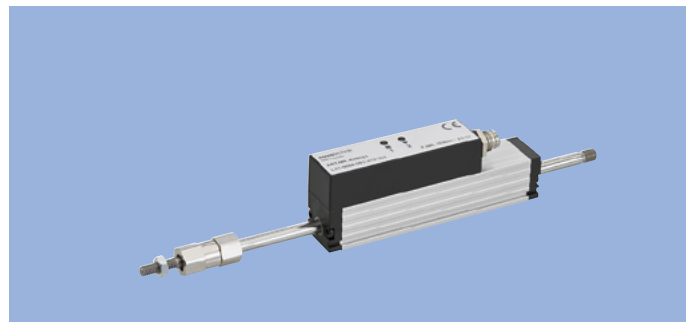
- easy installation with adhesive film on rear side and flexible connection with plug
- insensitive to dirt, dust or liquids, IP67
- robust and easy to use
- flat design



NOVOHALL touchless Linear Transducers series RFB

Linear transducers for ranges up to 30 mm for integration, for example in sliding or needle valves

- robust design in a very compact size
- contactless
- cost effective
- low-power version for reduced power consumption



NOVOPAD - Inductive Transducers as complete units, series LS1 and in open design

Absolute sensor with integrated signal processing. Exchangeable without recalibration.

- non-contact, long life
- intelligent signal processing (range adjustment / Teach In - button with status LED)
- insensitive to external magnetic fields