



Rotaltec

Sensors

ROTALEC PRESENTS CONTRINEX TECHNOLOGY

Founded in 1972, Contrinex fabricates inductive proximity sensors and photoelectric switches distributed in more than 40 countries. Contrinex specializes in the production of high quality products that respond to the highest demands in the industry.

Contrinex sensors are presence-indicating sensors, which work without contact. They contain no component that will be submitted to mechanical wear. Further, they are only slightly influenced by environmental factors. They respond perfectly to the following requirements: reliable, precise, long life, rapid reaction and switching frequency.

Before leaving the factory, each piece undergoes rigorous quality control through automated tests specially focused.

Contrinex wanted to distinguish themselves by offering a maximum of advantages for the user. In utilizing the latest technologies, Contrinex sensors answer a multitude of applications.

Contrinex produces a vast selection of sensors such as:

- Miniature Proximity Sensors
- Long Range Sensors
- Analogue Output Sensors
- Sensors for use in Extreme Conditions (pressure or high temperature, difficult environments)

By putting intensive work into development, Contrinex has now made reality of solutions that were judged unattainable until today. Some of these creations have become, over time, industry standards.



CONTRINEX

Inductive and photoelectric sensors form the base of the products available from Contrinex. However, their strong point resides in developing leading-edge and high-tech solutions that make their range of product absolutely unique.

SERIES 700 CONDET SENSORS

Contrinex presents the new Condet Sensors. These work along an inductive process, but the coil that generates the magnetic field is not part of an oscillator. Instead, the magnetic field is generated by periodic, short transmitter current pulses, emitted in the coil. This field induces a voltage in the target, which in turn, generates a current flow in it. When the transmitter current pulse is switched off, the current in the object dies away, causing a voltage to be induced in the transmitting coil. This voltage generates

the signal required, and is in principle independent of the field's energy loss.

The coupling between the object and the emitting coil resembles a transformer, therefore is independent of the temperature and only slightly influenced by the target's material, but their functioning differs considerably from those of traditional sensors. At first look, the sensing characteristics resemble each other but from closer inspection, we discover differences that can prove to be very important.

The 700 Series is characterized by its housing made of one-piece Stainless Steel. The front part of the housing offers a perfect impermeability to liquids and gases. Further, the face is relatively thick which permits it to resist to pressure and mechanical affliction.



This series distinguishes itself equally by its long sensing range with ferromagnetic metals and equally with metals that are good conductors such as: aluminum, copper, brass, etc. Offered in diameters of M12, M18, and M30, and available in 3-wire DC NPN and PNP executions, the

700 Series has protection functions built-in for short-circuits and overloads, full polarity reversal protection, induction protection, etc.

MINIATURE PROXIMITY SENSORS

Contrinex presents its Miniature Proximity Sensors. These sensors offer new possibilities in the cases or conditions where space is critical. Despite their small size, the electric characteristics of these sensors reach those of normal size sensors. Besides being as leading-edge as standard sensors, they offer a better reproducibility, better resolution, are light weight, and have a high switching frequency (5 kHz and higher).



The Miniature Sensors by Contrinex have an IP67 degree of protection offered in metallic housing, which realizes in

more durability. They are available in 3-wire DC NPN and PNP executions with LED display showing the state of the sensor. The Miniature series includes as well 2-wire versions according to NAMUR (NID/EN 19234).

The 300 Series includes sensors with diameter of 3mm smooth and 4mm. These are the smallest self-contained inductive proximity switches available on the market with fully integrated evaluation electronics.

The Series 400 comprises of sensors with diameter 4mm smooth, M5 threaded as well as 5x5x25mm rectangular with through holes for fixing; all suitable for washdown.

The Series 420 offers sensors of diameter 6.5mm smooth and M8. This series is distinguished by its extremely short physical length.

The 600 and 620 Series comprises of smaller size sensors that are more standard, such as M5, M8, sensors with diameters of 4mm and 6.5mm smooth. The Series 620 offers a range of sensing greater than the 600 Series.

LONG RANGE SENSORS: SERIES 500 AND 520

All the characteristics of these sensors correspond with those of classic proximity sensors, except for one. The Series 500 sensors are distinguished by a very large sensing range with ferromagnetic metals.

To obtain longer sensing distances, Contrinex developed the Condist oscillator. The Series 500 sensors work with this principle that allows its sensors to achieve **2.2 to 3 times** the norm. Further, these sensors are very reliable to detect elongated objects, as well as rods and wires.



The sensors of this series were constructed to assure a watertight seal to prevent any liquid penetration. The Series 500 comprises sensors with a diameter of 6.5mm smooth up to M30, and are available in 3-wire versions, with NPN and PNP executions.

The Series 520 sensors work along the same Condist principle as the Series 500, but with an even greater operating distance on ferromagnetic metals. For this product line, M8 and M12 sizes exist.

SPECIAL APPLICATION SENSORS



Analog Output Sensors

The Series 500 sensors include a variety of sensors with analog output. Thanks to the Condist principle, these sensors are characterized by a very long sensing range. They distinguish themselves by a large operating distance, with high precision,

stability, and reproducibility.

A voltage output (0 ... 5V, or 0 ... 10V) and a current output (1 ... 5mA or 4 ... 20mA) are simultaneously available. These sensors are available in M12, M18, and M30.

SEALED SENSORS, SERIES E

The Series E sensors were created for severe conditions and have a Stainless Steel housing, and a ceramic or sapphire sensing face, soldered on. To guarantee a watertight seal, these sensors do not have an LED and are available with a high-flex cable furnished with a polyurethane case. This sensor line comprises diameters of 4mm smooth up to M8.

High-Pressure Resistant Sensors, Series P The P Series are sensors of varied dimension, which can resist pressure of 100 to 500 Bar. These sensors are furnished with a Stainless Steel housing imperviously shrunk onto a ceramic disk at the sensing face. The assembly procedures of these sensors make them very resistant and ideal for applications with tight constraints by fast variations of pressure. Fitted with a high-flex cable or with an integrated connector, the electronic properties are equivalent to those of the corresponding Series 500 devices.

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