CARREL-ELECTRADE LTD

not just products... solutions!

PROXIMITY SENSORS
INDUCTIVE AND CAPACITIVE TYPES
SUNX – DATASENSOR – RECHNER

Proximity inductive sensors

- M8 to M30 tubular housing or rectangular
- AISI 316L stainless steel versions
- 1 - 20 mm detection distance
- 10-30 Vdc, 2, 3 or 4 wire NPN/PNP versions
- 24-230 Vac, 2 wire versions
- N/O and N/C or Antivalent
- Plug-in or cable type

Level Control

PTFE-1-100C

Description - Capacitive sensor with semi-circular active area and PTFE housing, NPN antivalent.

- 10-30 Vdc, 2, 3 or 4 wire NPN/PNP versions
- 24-230 Vac, 2 wire versions
- N/O and N/C or Antivalent

Low-cost Standard Capacitive Sensors

- 10-30 Vdc, 2, 3 or 4 wire NPN/PNP versions
- 24-230 Vac, 2 wire versions
- N/O and N/C or Antivalent
- Sensing ranges from 4 to 25mm

High Performance Capacitive Sensors

- 10-30 Vdc, 2, 3 or 4 wire NPN/PNP versions
- 24-230 Vac, 2 wire versions
- N/O and N/C or Antivalent
- Plug-in or cable type
- Sensing ranges from 4 to 25mm

If you need a Proximity Switch we have got one for you !!!

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Inductive Sensors: feature transistorized oscillators whose power consumption is influenced by the approach of metal and other conductive materials such as carbon. These devices can be used as limit switches and position sensors for monitoring and positioning applications in machines and installations as well as pulse generators for counter systems, distance measurement, speed control and many other applications.

Capacitive Sensors: react to metals and non-metals which exceed a specific capacitance on approaching the sensors active surface. The sensing distance is directly proportional to the dielectric constant of the material. The sensors are used to detect objects for counting as well as all types of level control of liquids, solids and powders.

Flush mounted: capacitive sensors are particularly suited for detecting solid objects without direct contact and for sensing liquid or solid levels through non-metallic containers.

Non-flush: capacitive sensors are designed for applications in which the material to be detected comes in direct contact with the sensor. In such level monitoring systems, the sensor head is completely immersed in the powder or liquid.

Sensor Output: circuits can actuate high resistance electronic circuits, relays and small contactors. Some switching function of sensors with the designation "S" is that of a NO contact the "O" is that of a NC contact and the "A" designates a sensor with both NO and NC functions.

Analog Sensors: supply a proportional signal corresponding to the distance from the target to the sensor face. The signal is in the form of a 4 to 20 mA. current. The analog sensors are particularly suited for measurement and control engineering applications, and are PLC compatible.
Advantages; of proximity sensors over conventional detection methods are their high speed and non-contact operation. This results in no wear, no maintenance, and a long life which is independent of switching frequency. Inductive sensors are normally unaffected by dirt. vibration water and oil.

Special Features: of these sensors are their industrialized construction. All the electronics are encapsulated in epoxy resin to ensure a long life under shop-floor environments. The plastic housings include PVC, glass reinforced nylon (Polyamid) and PTFE. The metal housings are chrome plated brass or V2A stainless. All Inductive sensors are IP67 rated and the Capacitive models are IP65 with the standard flap cover over the potentiometer. If a M3 screw with an "O" ring is used to seal the potentiometer opening, the rating increases to IP67.

Sensing Distance: data is based on measurements conducted at 25 degrees C with a 1 mm thick steel plate equal to or greater than the diameter of the sensor under test. The nominal detection distance Sn has a tolerance of 10% and is reduced if the target is smaller than the sensor diameter.

On models with a adjustable sensitivity, turning the potentiometer clockwise increases the detection distance.

Standard sensors have a vibration resistance of 30 g, 100 to 2000 Hz for 1 hour and an ambient temperature rating of -30 to 70 degrees Celsius.