

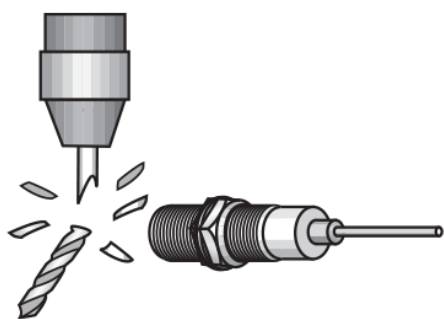
# MODEL IPH



## Inductive Proximity Switch

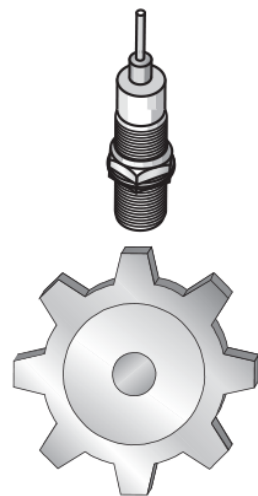
Reliable, Compact and Affordable! Proximity sensor technology for metallic objects.

### Product Use



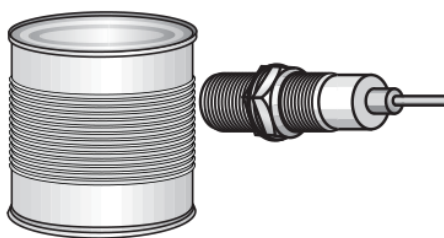
#### Broken Tool Detection

Inductive proximity sensors are ideal for detecting broken drill bits, tooling or other moving parts that can otherwise go unnoticed and slow down production.



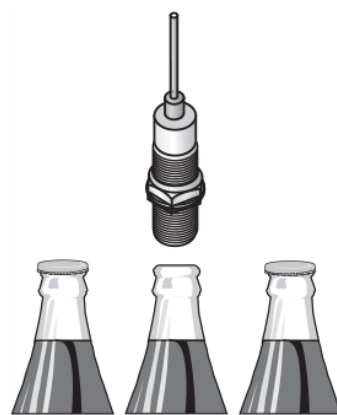
#### Cam Follower

The high switching speed of our inductive sensors allows you to monitor any variation in cam or gear rotation speed.



#### Part & Product Detection

Inductive sensors can be used for detecting any metal part or product to allow for perfect positioning in filling, labeling or batch counting applications.



#### Bottle Cap Detection

Use inductive sensors to ensure quality control in packaged or bottled food and drink production.

## ABOUT

Inductive proximity sensors detect the presence and absence of conductive metal objects in a wide variety of automation applications in many different industries. The IPH is available in AC or DC voltage operation and normally open or normally closed.

Inductive sensors can be used for a wide variety of purposes in detecting metal objects including detecting broken drill bits, variation in cam or gear rotation speed, part or product detection for position sensing and many other purposes.



- ✓ AC or DC switches – versatile
- ✓ Shielded construction for flexible mounting
- ✓ Solid-state – no moving parts
- ✓ Industry standard M18 size – convenience



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# MODEL IPH

## Inductive Proximity Switch



### Technical Data

<b>Housing</b>	18mm dia. x 78mm long; PBT face; Chromed Plated Brass Housing, IP67
<b>Process Temp</b>	-13° F to +158° F (-25° C to +70° C)
<b>Ambient Temp</b>	-13° F to +158° F (-25° C to +70° C)
<b>Sensing Distance</b>	Up to 5mm Distance
<b>Maximum Load</b>	AC – 400mA, DC – 200mA
<b>Process Connection</b>	18mm Threaded;
<b>Certification</b>	Ordinary Location; CE mark

### Ordering Information

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Model	Supply/Wiring	Output Configuration
2 – Shielded, Quick Disconnect	1 – 2-wire AC 2 – DC NPN 3-wire 3 – DC PNP 3-wire	1 – Normally Open 2 – Normally Closed

Approvals	Process Connection
1 – Ordinary Location	2 – M18 (18mm)

### Principal of Operation

The inductive sensor’s circuit consists of a coil of copper wire wrapped on a ferrite core and a transistorized circuit. A small amount of energy is supplied to the coil and the transistorized circuit uses this coil to produce an oscillation. The inductive sensors operate on a “kill oscillator” principle. When the conductive material or object is brought into the Radio Frequency field, eddy current losses draw energy from the coil to run along the surface of the metal. Since there is little energy in the coil, the amplitude of the oscillation decreases as more of the target metal enters the field. When enough metal enters the field the losses become so great that the circuit is unable to keep the oscillator running. When the oscillation is killed a detector produces a solid-state switch output.

### Application and Use

Inductive proximity switches can be used to detect conductive metal objects. The maximum sensing distance is based upon an iron target and reduced dependent on the actual metal to be detected. Shielded construction is the most commonly available and these sensors include a metal band which surrounds the ferrite core and coil arrangement which helps direct the electromagnetic field to the front of the sensor allowing the sensor to be embedded. Unshielded sensors do not have this and are side sensitive. Inductive sensors can be used for a wide variety of purposes in detecting metal objects including detecting broken drill bits, variation in cam or gear rotation speed, part or product detection for position sensing and many other purposes.

### Standard Models Available

- 2-Wire AC, N.O., Shielded, Connector
- 2-Wire AC, N.C., Shielded, Connector
- 3-Wire DC, PNP, N.O., Shielded, Connector
- 3-Wire DC, PNP, N.C., Shielded, Connector
- 3-Wire DC, NPN, N.O., Shielded, Connector
- 3-Wire DC, NPN, N.C., Shielded, Connector



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