

## Basic sensors for robot grippers

# MAGNETIC FIELD SENSORS VS INDUCTIVE PROXIMITY SENSORS

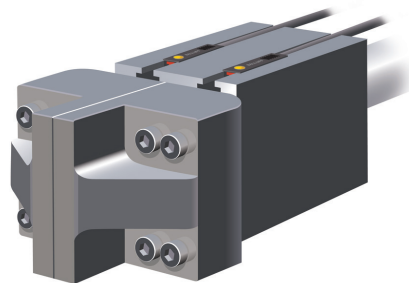
What is the difference between magnetic field and inductive sensing for robot grippers?

### How it works

#### Magnetic Field Sensor

##### Indirect Method

Monitors the mechanism that moves the jaws and not the jaws themselves



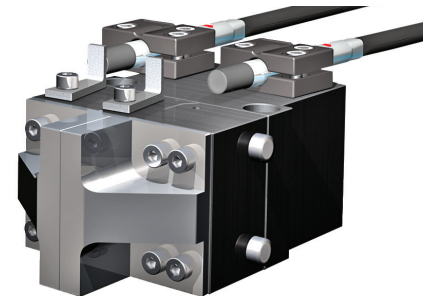
Magnetic field sensors sense magnets internally mounted on gripper mechanism to indicate open or closed position.

VS

#### Inductive Proximity Sensor

##### Direct Method

Monitors the jaws by detecting targets placed directly on the jaws



Proximity sensors sense tabs on moving gripper jaw mechanism to indicate fully open or closed position.

### Benefits and Info

- Installs directly into extruded slots on the outside of the cylinder
- Detects extremely short piston strokes
- Wear-free position detection

- Cylinder can be made of any material
- Magnets are not necessary

### Gotchas

- Requires a magnet installed in the piston
- Requires non-magnetic cylinder walls

- Requires more installation space
- Requires a longer setup time
- More variables to consider