

# A Better Solution for the Die Cast Industry

**GO**  
SWITCH

GO™ Switch Magnetic Position Sensors



The GO Switch family of magnetic position sensors are engineered to meet the rugged demands of the Die Cast industry. For over 20 years GO Switch Stroke-to-GO sensors have provided reliable hydraulic cylinder position indication on the most demanding applications.

**TOPWORX**

  
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## GO Switch Stroke-to-GO™ Position Sensors

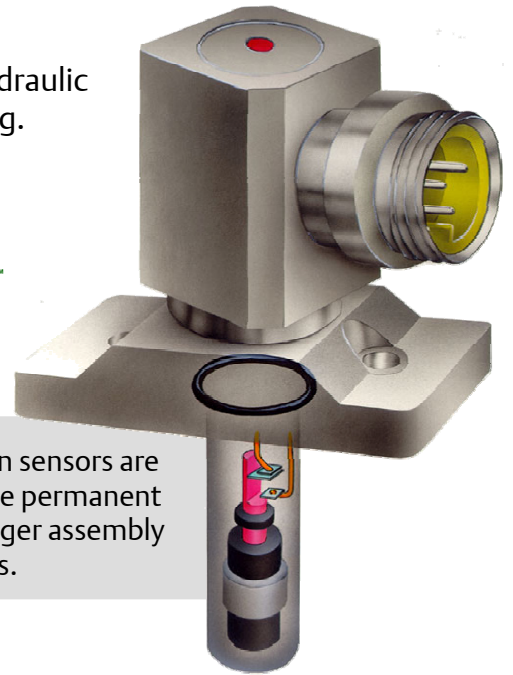
With their stainless steel housings and sensing faces, high temperature capabilities, and 3,000 psi pressure ratings, GO Switch Stroke-to-GO™ hydraulic cylinder position sensors deliver the ultimate reliability in position sensing.

### Features

- 3,000 psi operating pressure
- Up to 221°F continuous operating temperature
- Optional 400°F continuous operating temperature
- Probe lengths up to 5"
- SPST or SPDT contacts
- AC/DC, NO/NC flexibility
- Optional LED position indication
- Multiple wiring options
  - Quick disconnect
  - Lead wires
  - Cable

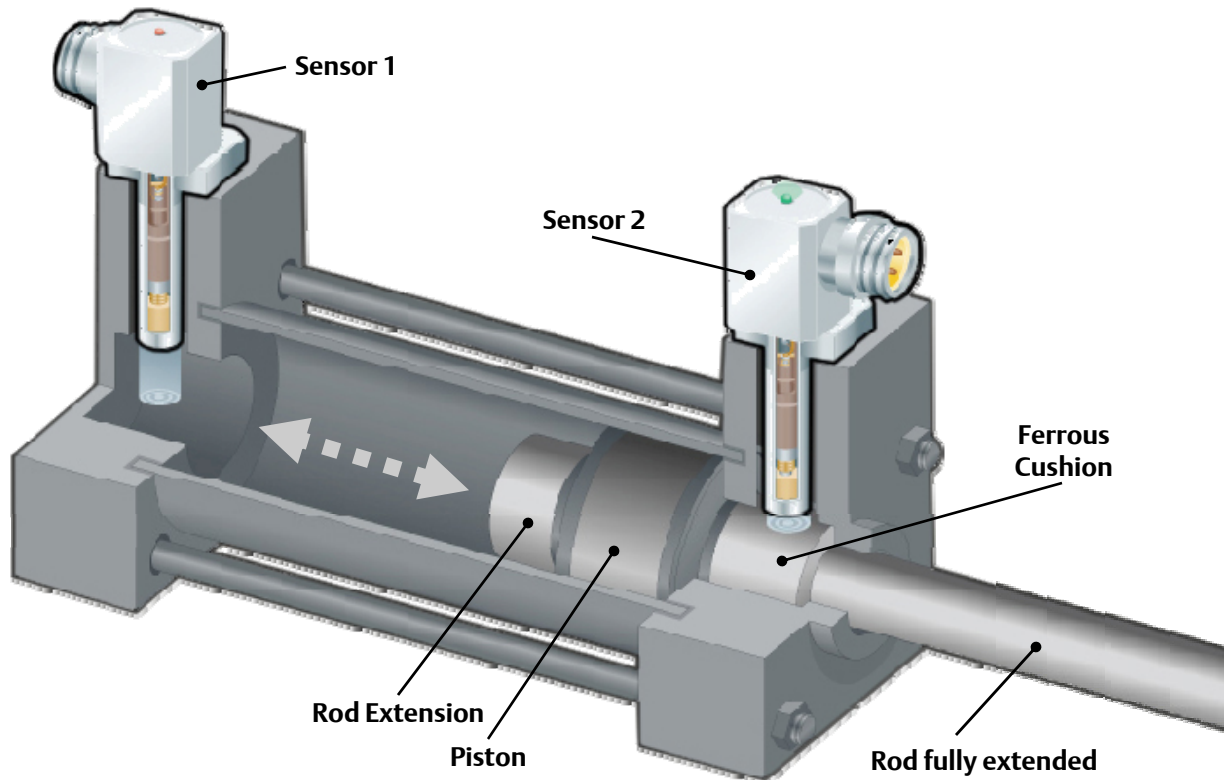
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Stroke-to-GO cylinder position sensors are uniquely designed, using three permanent magnets and a push-pull plunger assembly to control a set of dry contacts.

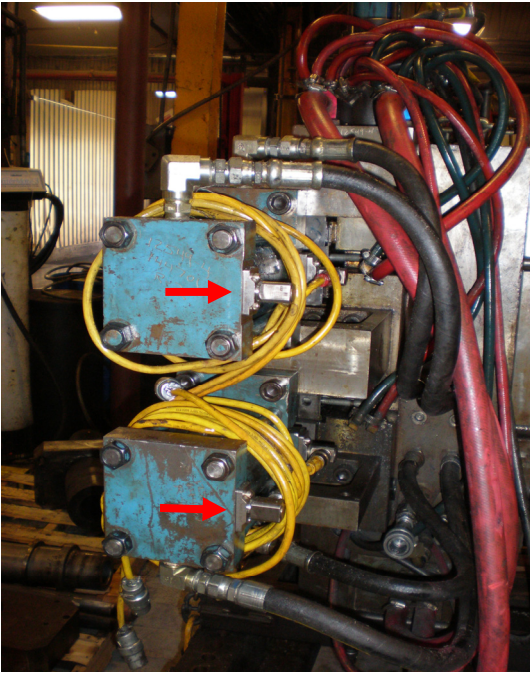


### How it Works

As seen below, GO Switch Stroke-To-GO position sensors are mounted on each end of a hydraulic cylinder and are activated and deactivated as the position of the ferrous cushion changes in the cylinder. When the rod is fully extended, Sensor 2 is activated, sending a signal to the PLC/controller that the rod is in the fully extended position. As the rod begins to retract, the cushion moves out of the sensing range of sensor 2 and deactivates it. Once in the fully retracted position, the rod extension enters the sensing range of sensor 1 and activates the contacts. This signal is sent to the PLC/controller indicating that the rod is in the fully retracted state.



# Why GO Switch Stroke-to-GO™ for Die Casting?



## History

GO Switch Stroke-to-GO magnetic position sensors were originally developed to meet the rugged requirements of the coal mining industry, holding up to the dirty environment and abuse that comes with the daily operation of coal cars. The proven magnetic sensor design now provides dependable and reliable position sensing for the die casting industry. The GO Switch Stroke-to-GO can withstand much higher temperatures than conventional sensors.

## Critical to Your Die Cast Operation

GO Switch Stroke-to-GO position sensors are used by die casting companies worldwide to monitor the position of hydraulic cylinders as part of the injection process. Monitoring each cylinder's position can help to insure that the die components are in the proper position, preventing waste of product and damage to the die. As sensor failures can lead to insufficient closing of the die, over-injection of material, and failed part ejection, accurate position sensing is critical to the operation of the die casting machine.

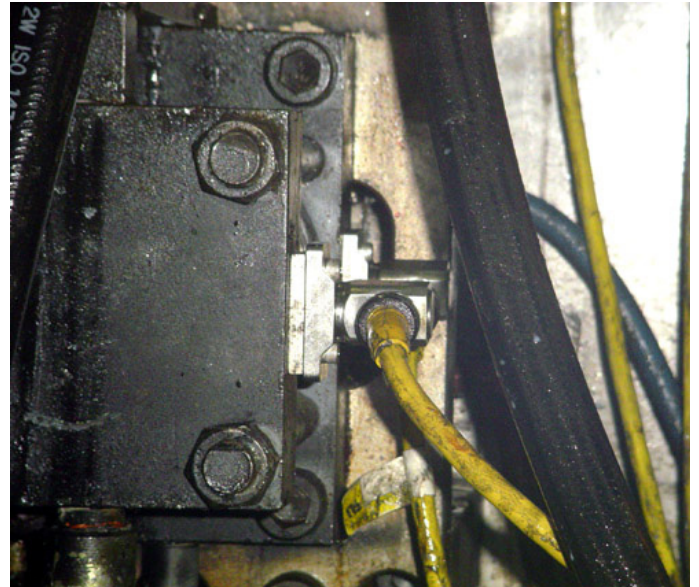
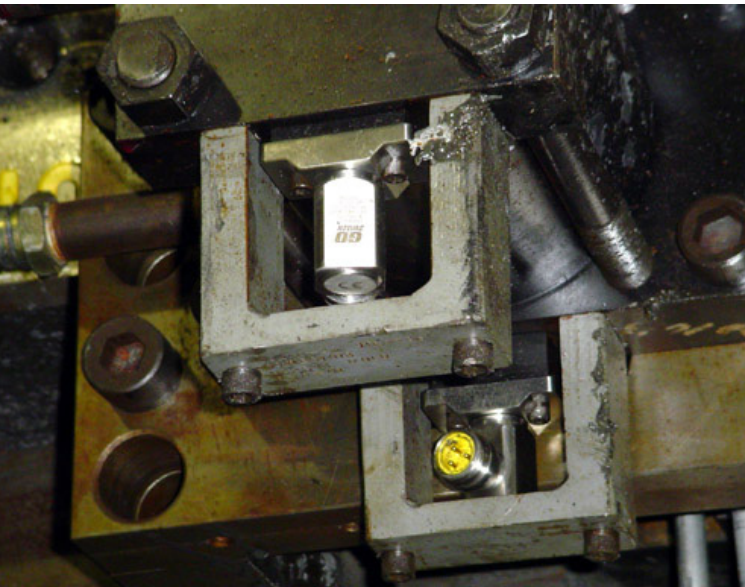
## Built to Withstand a Hostile Environment

With an all stainless steel housing and completely potted and sealed contacts, GO Switch Stroke-to-GO position sensors are completely shielded from the environment. When properly installed, sensor performance is not affected by dirt, moisture, corrosives, and the physical abuse that can come with moving and operating die cast equipment. Stroke-to-Go sensors are designed to operate continuously and accurately in a high temperature environment. Molten aluminum can reach temperatures as high as 1500°F resulting in process area temperatures of 150°F-250°F. Standard GO Switch Stroke-to-GO magnetic position sensors are designed to withstand this temperature range and with an available high temp option, can accommodate extreme temperatures of 250°F-400°F.



## Dependability and Reliability

A minor position sensor failure requiring diagnosis and replacement can shut a die casting process down for up to 2 hours, resulting in lost production time and high repair costs. A major position sensor failure can result in significant damage to the die and 24 hours or more of lost production time. Trying to save money by using a low cost sensor can result in higher failure rates with lost production and repair costs of as much as \$500 per hour. Using Stroke-to-GO sensors can eliminate unscheduled downtime and associated repair, scrap, and labor costs.



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### About Emerson Process Management

Emerson Process Management is a powerful, global, single source of process improvement technology and expertise. We help major companies in selected industries optimize their plants and processes to achieve higher quality, greater reliability and faster time to market, while steadily advancing productivity and profitability. We can build it - providing experienced project management, engineering and a single point of accountability for the entire instrumentation and automation system. We can connect it -- seamlessly integrating people and technology at every level of the process. We can improve it -- creating more efficient utilization of energy and raw materials. And we can sustain it -- producing greater reliability, month after month, year after year. From the field, to the plant, to the bottom line -- where performance is the question, Emerson is the answer.

The logo for TopWorx, featuring the word 'TOPWORX' in a bold, italicized, uppercase, sans-serif font with a red swoosh underline under the 'X'.

The Emerson Process Management logo, featuring a stylized blue and white diamond shape above the word 'EMERSON' in a bold, uppercase, sans-serif font, with 'Process Management' in a smaller, lowercase, sans-serif font below it.