

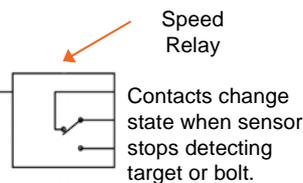
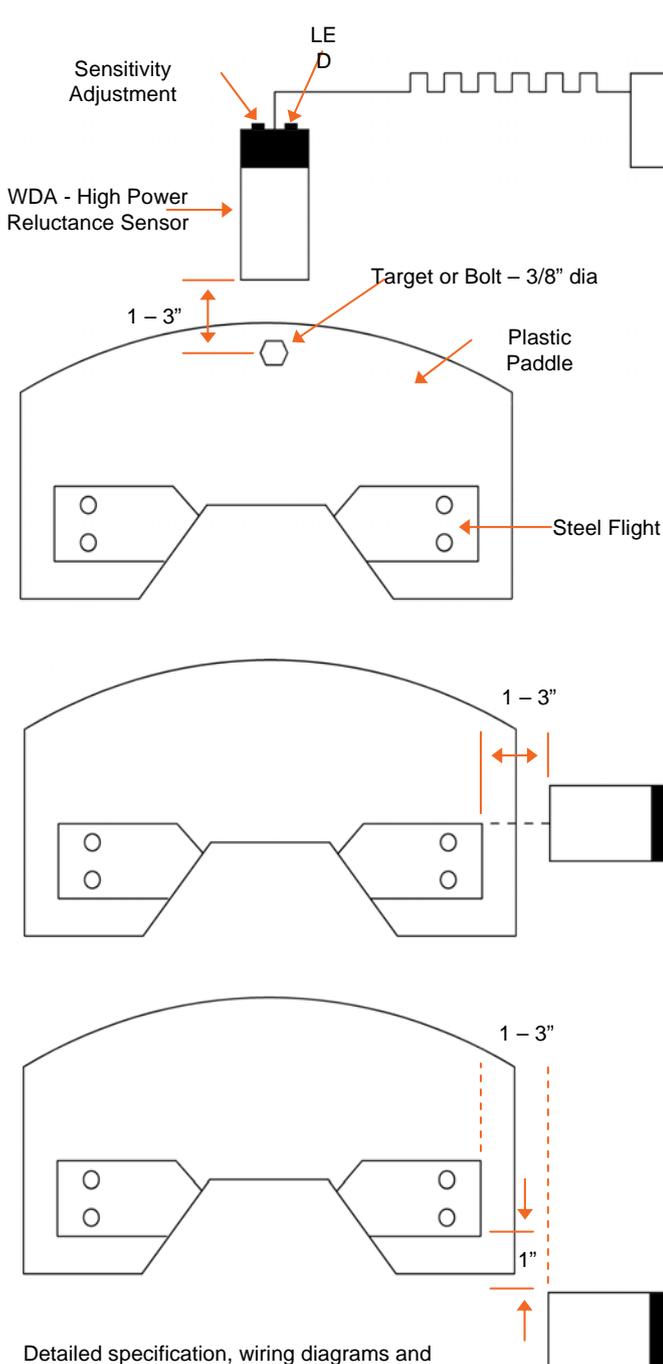
# Slack - Broken Chain Detector

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The 4B high power WDA reluctance sensor will detect a moving ferrous object up to 4" away. It is not affected by dust or material build up. It can be used as a slack/broken chain detector when installed as shown below. The sensor has an adjustable sensing range (1" – 4") and an LED helps with field adjustment.

Using the mounting block supplied, cut a 4" diameter hole in the sheet metal and position the mounting block so that the sensor is centered on this hole. Alternatively, the sensor and mount can be installed on a stainless steel plate without drilling a hole for the sensor. In this case, the sensor will not be affected because the sensing field can pass through the stainless steel plate.

**WARNING - Make sure that there is no ferrous steel (such as the machine's frame) within the sensing field.**



### OPTION 1

#### Sensor Detecting Bolt Installed on the Paddle

Under normal running conditions, the target bolt passes through the sensor's field and a pulse is sent to the speed relay. If the chain becomes slack, the target bolt will drop below the field and the pulses will stop, causing the relay contact to change state.



Speed Relay

### OPTION 2

#### Sensor Detecting Steel Flight

Under normal running conditions, the steel flight passes through the sensor's field and a pulse is sent to the speed relay. If the chain becomes slack, the steel flight will drop below the field and the pulses will stop, causing the relay contact to change state.



WDA Sensor  
(WDA3V34C)

To Speed Relay

### OPTION 3

#### Sensor Waiting to Detect Steel Flight

Under normal running conditions, the steel flight is out of the sensor's field, so no pulses are sent to the speed relay. If the chain becomes slack, the steel flight comes into the sensor's field and a pulse is sent to the speed relay, causing it to change state.



WDA High Temperature Sensor  
(HTAS1V34)

To Speed Relay

Detailed specification, wiring diagrams and installation/operating instructions available immediately upon request.

Please refer to instruction manual for correct installation. Information subject to change or correction. August 2010.