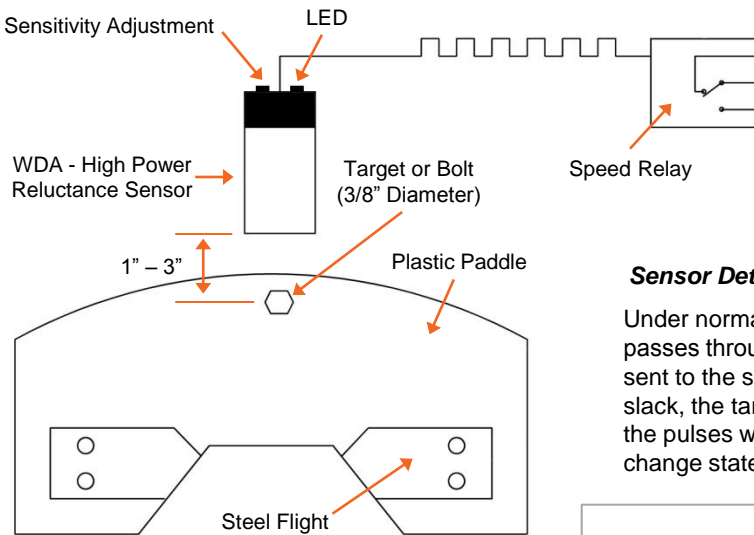


SLACK / BROKEN CHAIN DETECTOR

The WDA is a non-contacting extended range magnetic proximity sensor, not affected by dust or material build up, used to detect moving ferrous material from 1 to 3 inches away. One of the more specialized uses for the WDA sensor is for slack/broken chain detection when installed using one of the three options shown below.

Using the mounting block supplied, cut a 4 inch 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.



Contacts change state when sensor stops detecting target or bolt.

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 (SR2V5-1)

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)

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)