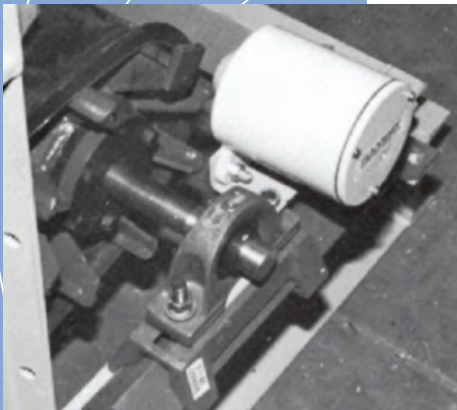


# Ramsey Under Speed Switch Model 60-23P



△ Under Speed Switch in Rotating Equipment  
▷ Model 60-23P

## Senses Under Speed Conditions in Rotating Equipment

The Ramsey Model 60-23P and 60-23PX Under Speed Switches provide a low-cost, dependable, versatile and simple means of monitoring the rotational velocity of a shaft or other rotating equipment. The Model 60-23P features one-piece unitized construction. The electronics and output contacts are housed in the same unit with the detector. Only two bolts are required to mount the unit. The non-contacting proximity-type detector has no moving parts. Once the simple installation is completed, the device is virtually maintenance-free.

Two 10-second time delays add important benefits to the package. The first delay

prevents nuisance alarms. The second delay accommodates an alarm to normal condition after the under speed status has been corrected.

The under speed switch is housed in a gasketed weather-tight polyamide/fiberglass enclosure (allowing exposure to harsh environments), or a cast aluminum NEMA 9 enclosure for explosion-proof applications.

The unit is ideally suited for a wide variety of industrial applications where the need to monitor for under speed or slippage conditions exist. It may be used on conveyor belts, bucket elevators and other types of rotating equipment.

### Operation

The Model 60-23P Under Speed Switch monitors speed by sensing a ferrous element attached to the rotating shaft or equipment. The detector generates impulses from the ferrous element and closes alarm contact when the time between impulses is greater than the time adjusted by the setpoint. The unit operates on the number of impulses received rather than actual revolutions. Low speed range may be enhanced by increasing the number of ferrous elements on the rotating shaft.

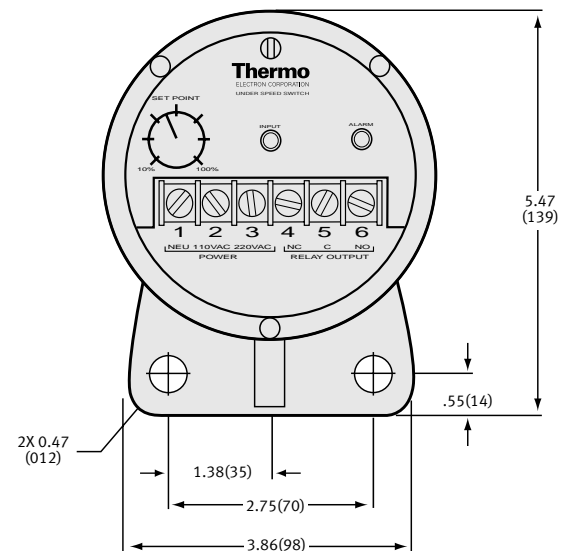
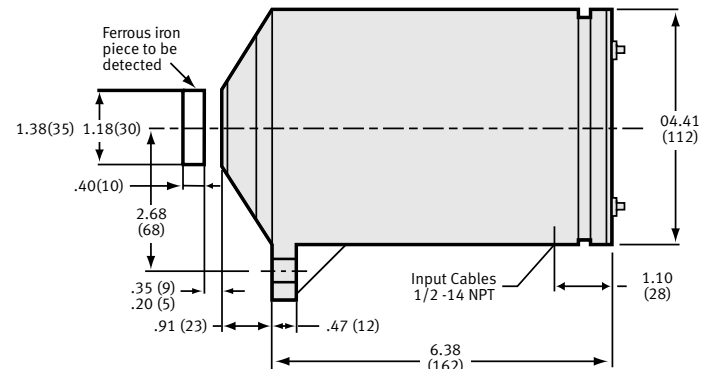
# Features and Specifications

## Features

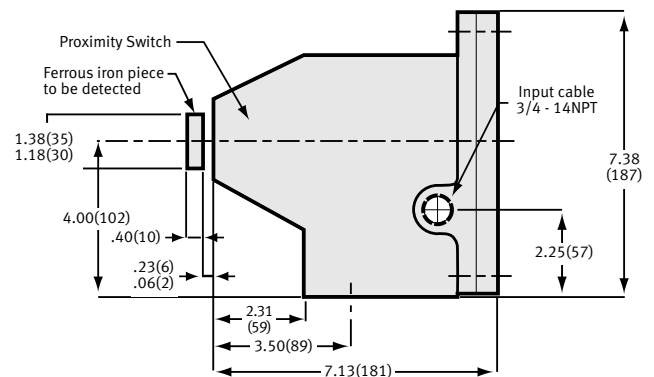
- Non-contacting, proximity-type detector provides longer life and lower operating costs.
- Two-bolt mounting assures simple installation.
- Single-piece construction with no separate control unit. Provides ease when setting up and/or troubleshooting.
- Rugged housing is weather-tight, polyamide/fiberglass, and sturdy, yet lightweight.
- No moving parts and a longer trouble-free life.
- Alarm/delay: 10 second delay while rotating equipment reaches operating speed.
- Alarm to normal delay assures notification when speed drops below adjustable setpoint.

General Specifications	
Voltage	110/220 VAC, +15%
Frequency	47-62Hz
Consumption	5 Watts
Operating Temperature Range	-4° F to +149° F (-20 C to +65 C)
Storage Temperature Range	-40° F to +176° F (-40° C to +80° C)
Alarm Contacts	Two - one normally open, one normally closed. Two amp, 250 VAC non-inductive load
Operating Range	60-600 impulses per minute
Start-up Delay	10 seconds
Alarm Setpoint	Adjustable between 10% and 100% of operating speed
Maximum distance from sensor to ferrous element	.35" (9 mm)
Enclosure	60-23P - Polyamide/fiberglass, gasketed weatherproof 60-23X - Cast aluminum, NEMA 9 explosion proof
Weight	2.9 lb (1.3kg) Model 60-23P 11.5 lb (5.2kg) Model 60-23PX

## 60-23P Mounting Dimensions



## 60-23PX Mounting Dimensions



Dimensions shown in inches and (millimeters)



501 90th Avenue N.W. • Minneapolis, MN 55433  
Tel: (763) 783-2500 FAX: (763) 783-2525  
<http://www.thermoramsey.com>