



ROTSPEED SWITCH

ROLOLUK

everything under control...

• ROTOSPEED SWITCH •

INTRODUCTION

The Rotospeed Switch was developed initially to economically monitor Rotolok's Rotary Valves around the clock, replacing labour intensive visual supervision.

Other applications (e.g. belt conveyors, elevators and vee drives) however require more sophisticated overspeed and underspeed detection, so the Rotospeed has been upgraded to meet these needs.

OPERATION

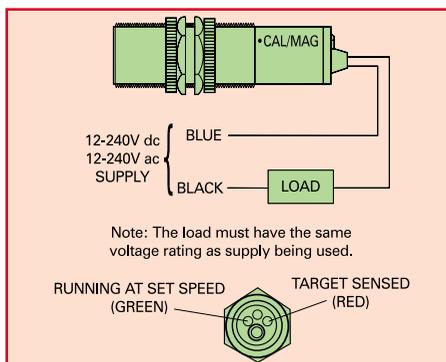
The heart of the switch is its sensing head with its built in switching device. The head detects the blades of a rotor mounted on the shaft to be monitored. The sensing head switch is activated when the rotor frequency matches or exceeds the switches setting frequency. The switch will deactivate when the rotor frequency falls below the switches setting frequency.

The switch is suitable for operation over a range of 2.5 to 200 RPM but this range can be extended if details are given on application.

Care must be taken not to overload the switch and these details are as charted. In all cases it is recommended to install prior to the Rotospeed, a 5 A protection fuse.

Different sensing heads can be used for alternative applications, (details given on application).

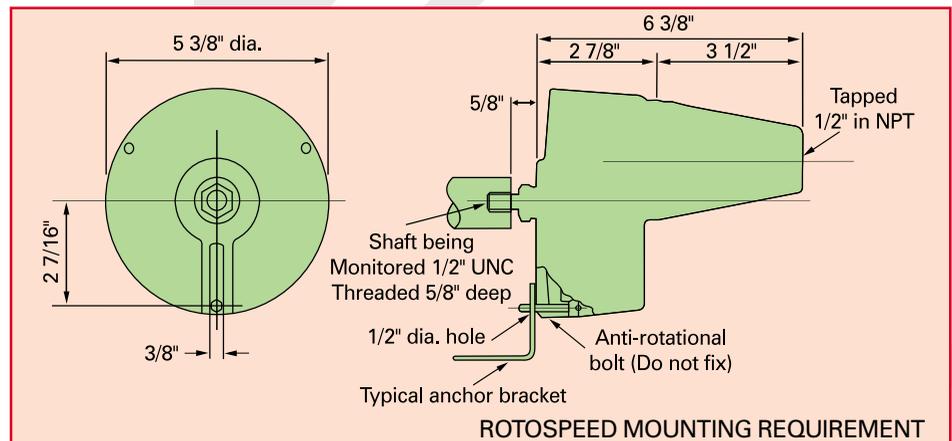
The shaft being monitored should be tapped 1/2"UNC in accordance with the planning in drawing and to overcome the problem of eccentricity or the hole not being coaxial, a locating plate should be fitted to stop rotation of the switch. By locating rather than bolting the Rotospeed firmly to the bracket, bearing overload is prevented.



CONSTRUCTION

The total unit is housed in a weatherproof aluminum housing and can be directly coupled to the monitored shaft and is suitable for running in clockwise or anticlockwise direction. Housing can be cast in alternative materials, details on application.

The proximity switch provides an open circuit when de-energised and operates from a 12 - 240V DC or 24 - 240V AC 50/60 HZ supply. Mounting positions can be horizontal, vertical or at any convenient angle.



SPEED ADJUSTMENT

If it is necessary to recalibrate the Rotospeed to a new speed or start-up delay, proceed as follows:-

- Switch off the supply to the machinery and Rotospeed.
- Undo the three M6 caphead socket screws located in the base of rear housing.
- Remove rear housing by sliding down the cable.
- Place the end of the magnet with the black dot against the spot on the "Cal Mag" text on the sensor and re-apply the power to both the machinery and the Rotospeed. Continue to hold the magnet in position until the machinery has reached it's correct running speed and then remove the magnet. The sensor will self-calibrate for 20% under the monitored speed and the output LED will flash at one second intervals, to confirm start up delay.
- To recalibrate the start up delay; with machinery running reapply the magnet to the "Cal Mag" Text on product label for a period equal to the required start up delay and then remove the magnet.

Note: Whilst the magnet is placed against the "Cal Mag" position the output LED will flash at one second intervals as a guide to time delay. When the magnet is removed the sensor will self calibrate to 20% under the monitored speed and then the output LED will again flash at one second intervals, to confirm the start up delay.

SPECIFICATIONS

Supply:	12-240v dc or 24-240v ac.	Output State:	Normally closed (Volt drop 6 volts max) above set speed. Normally open (leakage current 1.6mA max).
Fusing:	Supply to be fused at 5A max.		
Switching Capacity:	200mA max.		
Saturation Voltage:	6 volts max (output on).	Trip Level:	20% below set speed.
Ambeint Temp:	-13°F to +160°F.	Relative Humidity:	90% RH
		Start Up Delay:	0-30secs.