DAZIC®
ZERO SPEED SWITCHES

Wiring Instructions

RotoGuard® III – Adjustable Alarm Speed Models

Adjustable Alarm Speed models are appropriate in applications where an alarm is needed with a 15% or greater change in rotational speed.

Model Number	Input Voltage	Mounting Frame
NEMA 4/5 — *Weatherproof and dust tight*		
SA3A1A1	120 VAC	No
SA3A2A1	240 VAC	No
SA3B1A1	120 VAC	Yes
SA3B2A1	240 VAC	Yes

Model Number	Input Voltage	Mounting Frame
NEMA 7/9 — *Explosion Proof**		
SX3A1A1	120 VAC	No
SX3A2A1	240 VAC	No
SX3B1A1	120 VAC	Yes
SX3B2A1	240 VAC	Yes

BEFORE CALIBRATION

The RotoGuard® III contains a field selectable range adjustment. The two selectable ranges are: 1-25 rpm and 20-300 rpm. To adjust, simply move the jumper to the position that most closely approximates the normal shaft rotation speed *(see Figure 1)* and then continue with the following calibration procedure:

UNDERSPEED CALIBRATION PROCEDURES

At the start of calibration, the shaft should be rotating at its normal operating speed and **Alarm Delay Trimmer** (**R15**) fully **clockwise**.

Then turn the **Alarm Speed Potentiometer** (R9) **counterclockwise** (maximum alarm speed). The LED indicator should go off which indicates that the relay is de-energized.

Slowly turn the **Alarm Speed Potentiometer** (R9) **clockwise** to the point where the relay energizes and the LED indicator comes on (non-alarm condition).

The calibration is now complete. A decrease in shaft speed of approximately 15% will cause an alarm signal (relay & LED off).

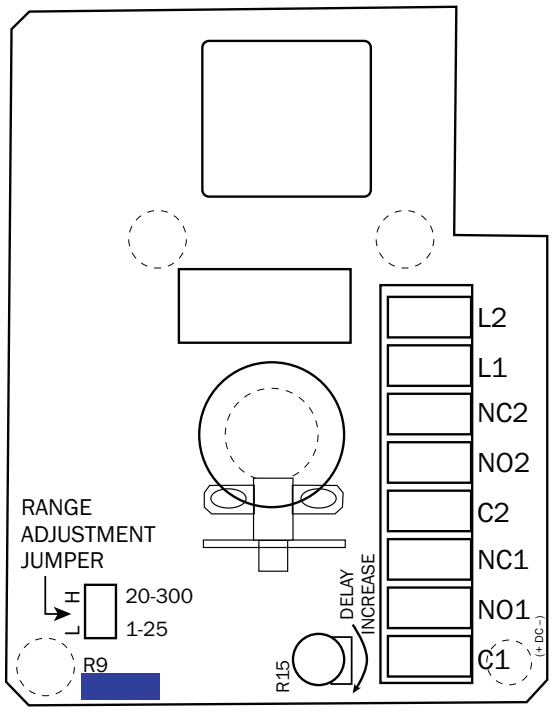


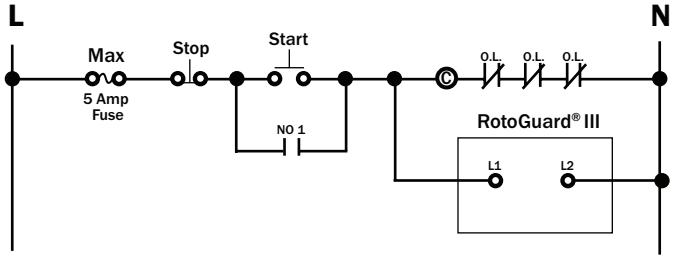
Figure 1

START-UP ALARM ADJUSTMENT

The startup alarm delay feature allows time for conveyors, etc. to come up to speed before the RotoGuard III's output alarms. Adjustment from 0 to 60 seconds is possible from the **R15** trimmer. This delay occurs only after initial power up of the RotoGuard III. The RotoGuard III must be unpowered approximately 10 seconds for reset of the startup delay.

Adjust **R15** fully clockwise for zero delay and fully counterclockwise for 60 second delay. A 1/4 turn is approximately 20 seconds.

Example of wiring for Startup Alarm Delay



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Wiring Instructions for RotoGuard® Adjustable Alarm Speed Models

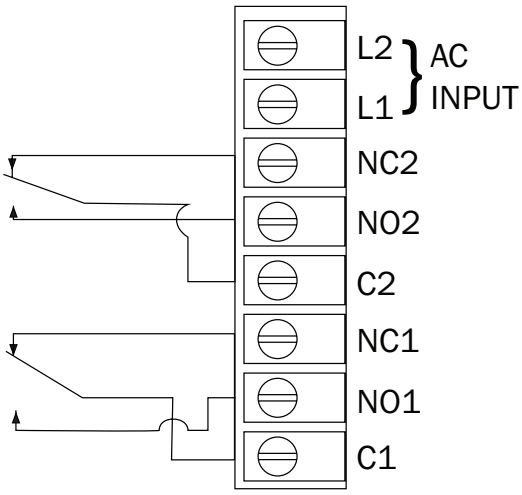
RotoGuard® Adjustable Alarm Speed Specifications:

Housing	Polyester Coated Aluminum Casting
Input Shaft Speed	1-300 RPM
Input Voltage	120 VAC or 240 VAC at 50/60 Hz (Factory Set)
Output Relay	DPDT (Double Pole, Double Throw) 5 Amp @ 120 VAC, 240 VAC or 24 VDC
Temperature	-40°F to 160°F (-40°C to 71°C)
Power Consumption	3 Watt
Shaft Dimensions	5/8" dia. with 1 flat suitable for Lovejoy type coupling
Conduit	3/4" NPT opening
NEMA Rating	NEMA 4/5 Weatherproof and dust tight or NEMA 7/9 Explosion Proof available with specific models.
Note: Input shaft speed must not exceed 100 RPM on NEMA 7/9 Explosion-Proof models	
Alarm Point	15% change in operating speed
Startup Delay	0-60 Seconds

Wiring – Relay Output

Note: Use copper conductors only with 60/75° C (140/167° F) insulation rating.

Torque power connections to 7 lb-in.



Contact shown with relay de-energized.
(Alarm State)

CONTROL CONCEPTS USA

Control Concepts, Inc.
100 Park Street
Putnam, CT 06260

E: Sales@ControlConceptsUSA.com
P: 860-928-6551 • F: 860-928-9450
www.SpeedSwitch.com

MADE IN THE USA