

# MODEL RMS

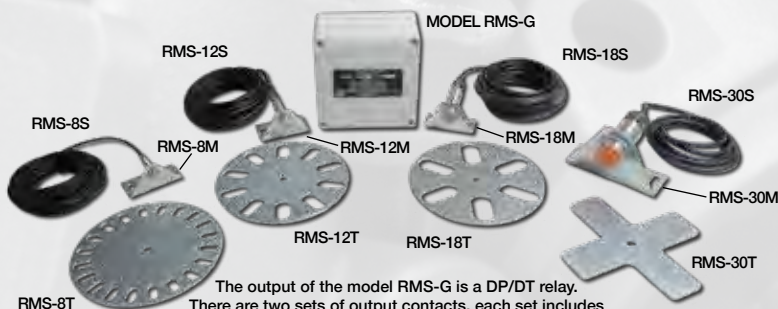
## NON-CONTACT MOTION MONITORING SYSTEM

**ACCURATE AND RELIABLE  
SENSING OF UNDERSPEED,  
OVERSPEED AND ZERO  
SPEED CONDITIONS ON  
ROTATING SHAFTS AND  
MACHINERY**

## PROTECTS VALUABLE ROTATING EQUIPMENT

The Model RMS non-contact motion control will provide accurate and reliable speed sensing of rotating shafts and machinery. Choose a NEMA 4 polycarbonate enclosed controller, then choose a sensor, and a matching mounting bracket and target disk. Each sensor comes with 6 feet of cable, will need to field splice for longer lengths. It will produce an output signal at a predetermined speed which may be either underspeed or overspeed. Solid state electronics and analog technology make this one of the most advanced and versatile motion detectors available. The Model RMS protects all valuable rotating equipment including belt conveyors, bucket elevators, rotary feeders, or screw conveyors.

The Model RMS uses a remote mounted inductive sensor to monitor speed. Motion is sensed by means of induced measurable pulses produced by a ferrous metal target rotating past the sensor. Sensors and Targets are paired for optimal pulse ranges and are available for purchase separately. If a distinctive metal target is available, sensors can be used without RMS Target. The produced pulses are converted to a digital electronic signal. Solid state circuitry within the DIN rail mount box then analyzes the digital signal and activates or deactivates the output relay at the pre-set speed point.



The output of the model RMS-G is a DP/DT relay. There are two sets of output contacts, each set includes normally open, normally closed, and common. As a result, the unit can be used to control two separate circuits such as a motor starter and a signal light.

**RMS-8M, RMS-12M, RMS-18M and RMS-30M**  
Mounting Brackets Sold Separately.

## CONTROLLER SPECIFICATIONS

### MECHANICAL SPECIFICATIONS:

**ENCLOSURE:** Polycarbonate  
**MEETS:** NEMA 1  
**WEIGHT:** .75 lbs.  
**SIZE:** 3" x 2 1/4" x 4 1/4"

### ELECTRICAL SPECIFICATIONS:

**INPUT VOLTAGE:** RMS-1G; 105-135 volts A.C., 50-60Hz.  
RMS-2G; 210-250 volts A.C., 50/60 Hz.  
RMS-3G; 24V AC/DC

**OUTPUT:** DP/DT relay 5 Amp. Resistive at 120 volts A.C.  
DP/DT relay 5 Amp. Resistive at 240 volts A.C.  
DP/DT relay 5 Amp. Resistive at 30 volts D.C.  
1/10 horse power at 120 volts A.C.  
1/10 horse power at 240 volts A.C.

**AMBIENT TEMP:** -10°F to 104°F (-23°C to 40°C) Controller only

**REPEATABILITY:** +2% maximum at constant voltage and temperature

**POWER CONSUMPTION:** 3 watts maximum

**SPEED RANGES:** Input ranges at which relay will energize:  
**LOW:** 2 to 120 PPM (use RMS-8S or RMS-12S)  
**MED:** 20 to 1200 PPM (use RMS-12S or RMS-30S)  
**HIGH:** 200 to 12,000 PPM (use RMS-18S or RMS-12S)

**SIGNAL POINT:** Speed at with relay will de-energize for Underspeed, or energize for Overspeed. Recommended to be 15-20% lower or higher than running speed. This will eliminate nuisance shutdowns.

**START UP DELAY:** Adjustable up to 45 seconds

### SENSOR SPECIFICATIONS:

MODEL NUMBER	RMS-8S/8T	RMS-12S/12T	RMS-18S/18T	RMS-30S/30T
Sensor Type	2 wire DC	2 wire DC	2 wire DC	2 wire DC
Body Diameter	8mm (0.31")	12mm (0.47")	18mm (0.71")	30mm (1.18")
Body Length	50mm (1.97")	71mm (2.79")	80mm (3.15")	81mm (3.19")
Thread Size	M8	M12	M18	M30
Cable Length	2m (6.5")	2m (6.5")	2m (6.5")	2m (6.5")
Sensing Range	1.5mm (0.06")	2.0mm (0.08")	5.0mm (0.20")	10mm (0.30")
Maximum Pulse Rate	2 kHz	1.5 kHz	1.0 kHz	0.6 kHz
Maximum Voltage	30 VDC	30 VDC	30 VDC	30 VDC
PPM Range	2 - 120 PPM	20 - 1200 PPM	20-1200 PPM	200 - 1200 PPM
Maximum Current	100 MA	100 MA	100 MA	100 MA