MATSUSHIMA
MACHINERY LABORATORY CO., LTD.

Patent Application

No.2011-104439

Speed Switch

# RevMonitor


MATSUSHIMA Machinery Laboratory Co.,Ltd.

# Press one button and setup is complete!


## Automatically records the normal revolution speed of machine shaft

Simply press the MOD button, and the RevMonitor will automatically record the current revolution speed of your machine as the normal speed for monitoring. No need to constantly check the revolution speed of your machine.
If the speed drops below the normal speed by 5% to 10%, the RevMonitor issues an alarm or outputs a contact signal to stop the machine.

### No adjustment required

No adjustment required because the RevMonitor automatically records the current revolution speed of the machine shaft as a benchmark.

### Safe monitoring

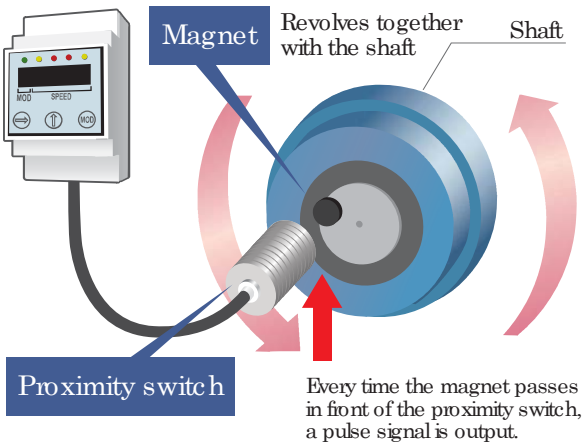
After setting the transducer to the normal speed, the actual speed of the machinery can be monitored remotely.

### Low maintenance

No need to worry about wear and tear caused by friction, because the speed is monitored without direct contact with machines.

### Operation Principle

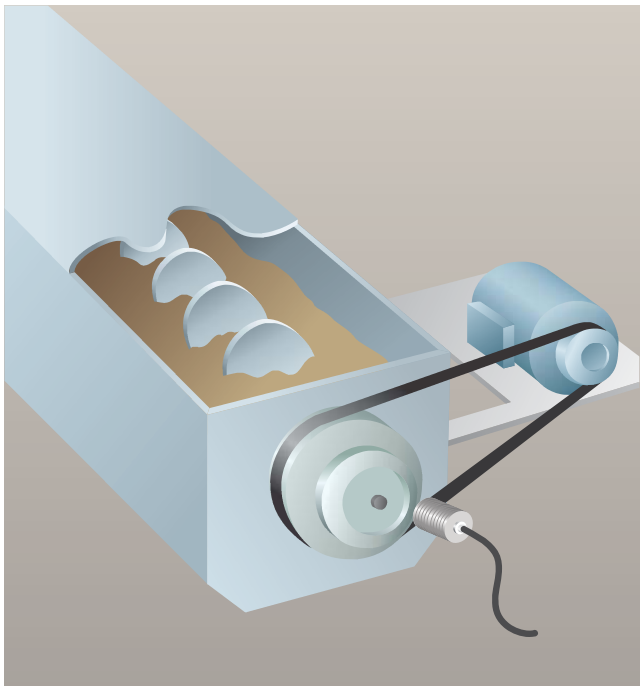
A magnet is mounted on the shaft of the machine and revolves with the shaft. Each time the magnet passes the proximity switch, a pulse signal is output.
The cycle of the pulse signal changes as the revolution speed changes. If the speed drops below the specified normal speed by 5% to 10%, the relay contact signal will be output.



# Application Examples

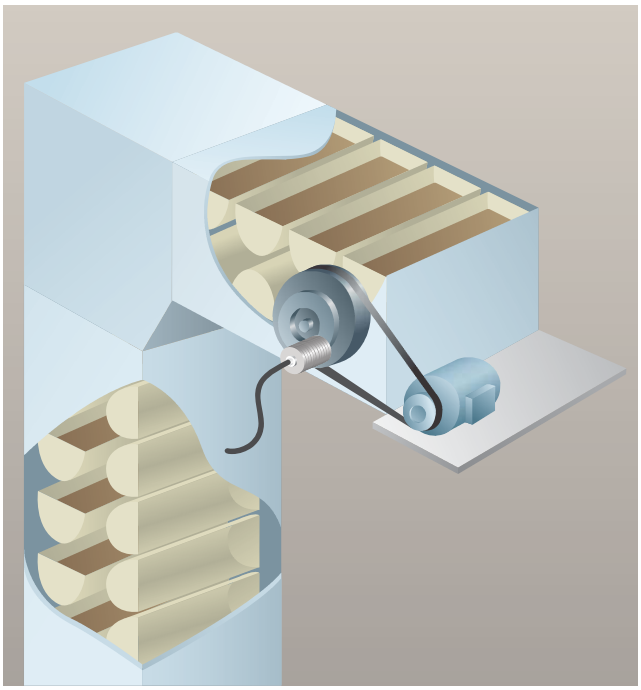
## Screw feeders

For early detection of mechanical loss



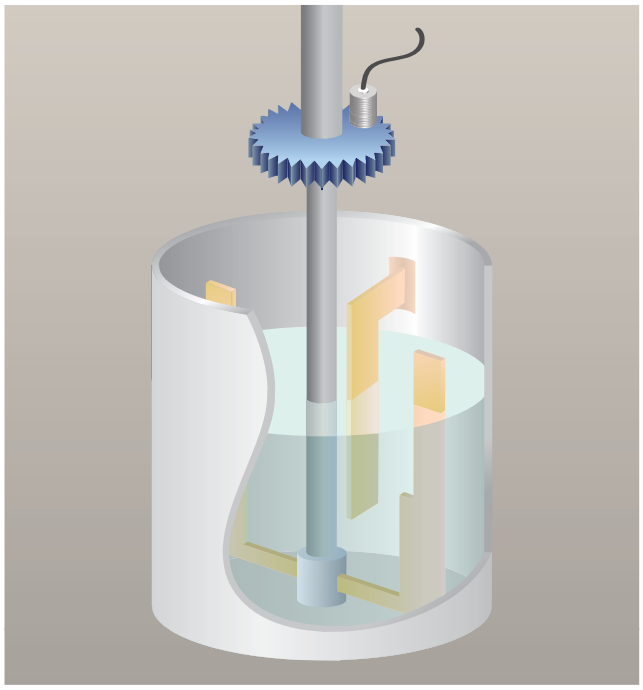
## Bucket conveyors

For detection of chain break



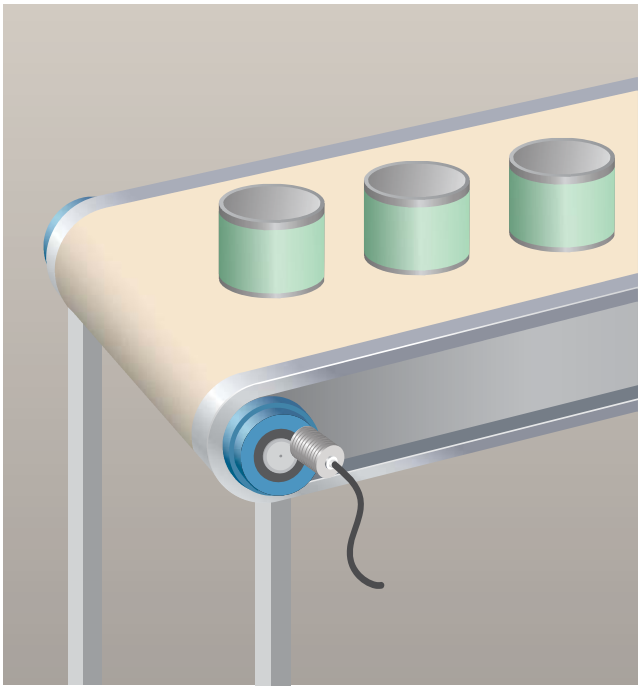
## Industrial mixers

For verification of the number of revolutions



## Transfer conveyors

For verification of actual conveyor speeds



## ●Model Designation

MHP-S□□

01 : Transducer + Proximity switch (10 mm*)
02 : Transducer + Proximity switch (10 mm*) + Signal tower
03 : Transducer + Proximity switch (14 mm*)
04 : Transducer + Proximity switch (14 mm*) + Signal tower
05 : Transducer + Signal tower
06 : Transducer only
*: Max. detectable distance

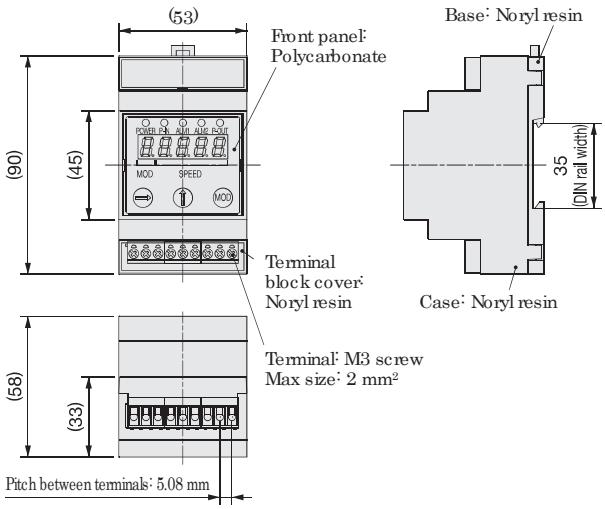
## ●Specifications

| | |
|---|---|
| Detectable speed range | 2.0 to 3,600 rpm |
| Detection accuracy | ±1% of benchmark speed or 0.5 rpm, whichever is larger. |
| Max. detectable distance | 10 mm/14 mm* |
| Timer | 0 to 999 seconds |
| Output contacts | Normally open (N.O.) contact×2 |
| Contact capacity | 6A at 24 VDC/6A at 250 VAC |
| Allowable temperature | −25°C to +70°C for proximity switch, −10°C to +60°C for transducer |
| Power source | 24 VDC ±5%, 20 to 240 VAC, 50/60 Hz |
| IP rating for protective structure | IP67 for proximity switch, IP20 for transducer |

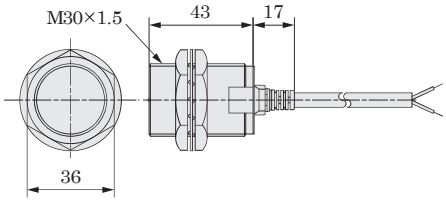
*: When using an M8 for the magnet.

## ●Dimensions (mm)

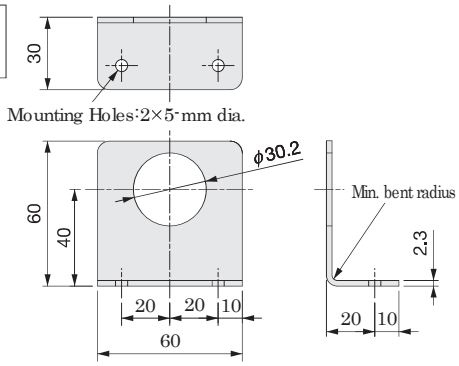
### Transducer




### Proximity switch (Max. detectable distance: 10 mm)



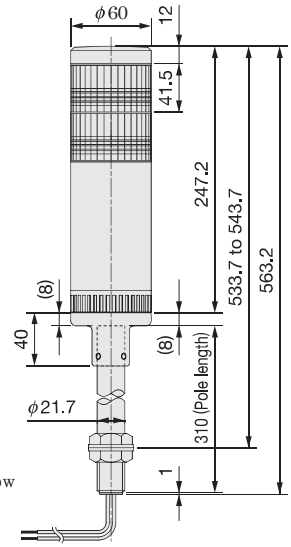

### Proximity switch mounting bracket



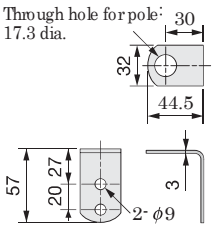

## ●Options

### Signal tower

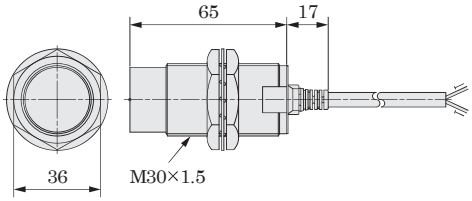
Input voltage: 100 VAC
Alarm lights: Red and yellow




### Dimensions of angle bracket for pole




### Proximity switch (Max. detectable distance: 14 mm)

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●Contact our nearest sales office when using our products for any systems used in situations which may be life threatening.



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