

## KAKKU HEAVY DUTY ZERO / UNDER / OVER SPEED SWITCHES

### SERIES KESS & KZSS

#### SPECIAL FEATURES

- Splash proof design and can be installed in open or exposed to heavy rain without any special protection.
- Resists extreme shock and vibratory conditions.
- Ease of maintenance, reliability of performance, ensuring longer life.

#### APPLICATION

**KAKKU** Heavy Duty electronic speed switches series KZSS & KESS are designed for generating a signal in case the speed of the conveyor belt increase or reduces due to any malfunction in the conveyor system. The system regularly monitors the speed of the conveyor & compares the same with the set / programmed speed.

#### CONSTRUCTION

The switch has a robust Cast Al. body housed into which is a relay, timer & contact unit. The system comprises of the following:

1. Relay unit mounted in enclosure.
2. Proximity sensor

#### MODEL-KESS

This model comprises of a relay unit with separate terminal box for termination of connections & proximity switch. The proximity switch is placed in front of the target & connected to the relay unit.

The proximity switch generates a signal that operates the relay unit & provides a contact continuously. In case of malfunction the contacts changes over from NO to NC.

#### MODEL-KZSS

This switch comprises of a steel / nylon roller mounted on one end of a shaft. The other end of the shaft is inside the control box & fitted with a 'Targeted' face. When roller rotates in contact with the running belt, the rotation is sensed through target by an inductive proximity switch & passed on to an electronic zero speed relay circuit to trip the switch below the preset limit. The zero speed relay has provision for initial by – pass and nuisance tripping delay. The initial by – pass delay and tripping speed can be set at site with the help of potentiometer knobs provided in the switch.

#### PUTTING INTO OPERATION: -

- a) Make connections on the relay terminals as per the markings given therein.
- b) N.O. contact opens at under speeds and therefore should be connected in series with the line contactor.
- c) Set the 'time knob' for initial by – pass.
- d) Set the 'speed knob' to keep the contactor energized at normal speed.

#### TECHINCAL DATA

Ambient Temperature	:	50°C.
Mounting Arrangement	:	Surface mounting
Housing	:	Cast Aluminium housing and detachable cover.
Enclosure category	:	As per IP-55 of IS : 2147 – 1962
Terminals	:	Suitable for conductor size 2.5mm <sup>2</sup>
Contacts	:	1NO + 1NC / 2NO + 2NC
Contact Rating	:	5 Amp, 230 VAC (Resistive)
Rated voltage	:	110 / 230 / 415 V AC
LED Indications	:	Supply ON , Relay ON
Speed Range	:	5-5000-9999 Rpm
Setting accuracy	:	(+ / -) 5 %
Repeat accuracy	:	(+ / -) 1 % set value
Proximity size	:	M 30
Sensing distance	:	12-15 mm
Protection	:	IP-67
Electrical protection	:	Reverse polarity & short circuit.

#### OPTIONAL EXTRAS

- Better enclosure category.
- Epoxy paint for special applications.
- Single or double compression cable glands.

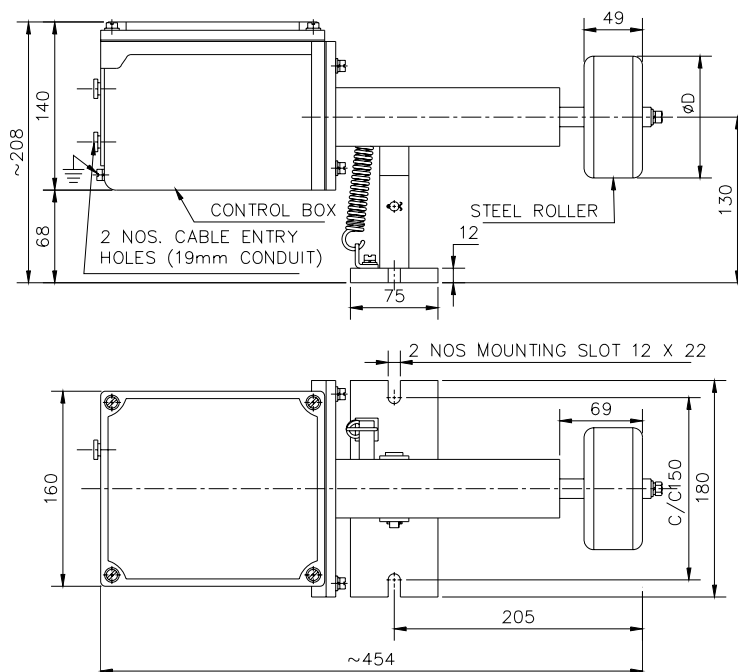
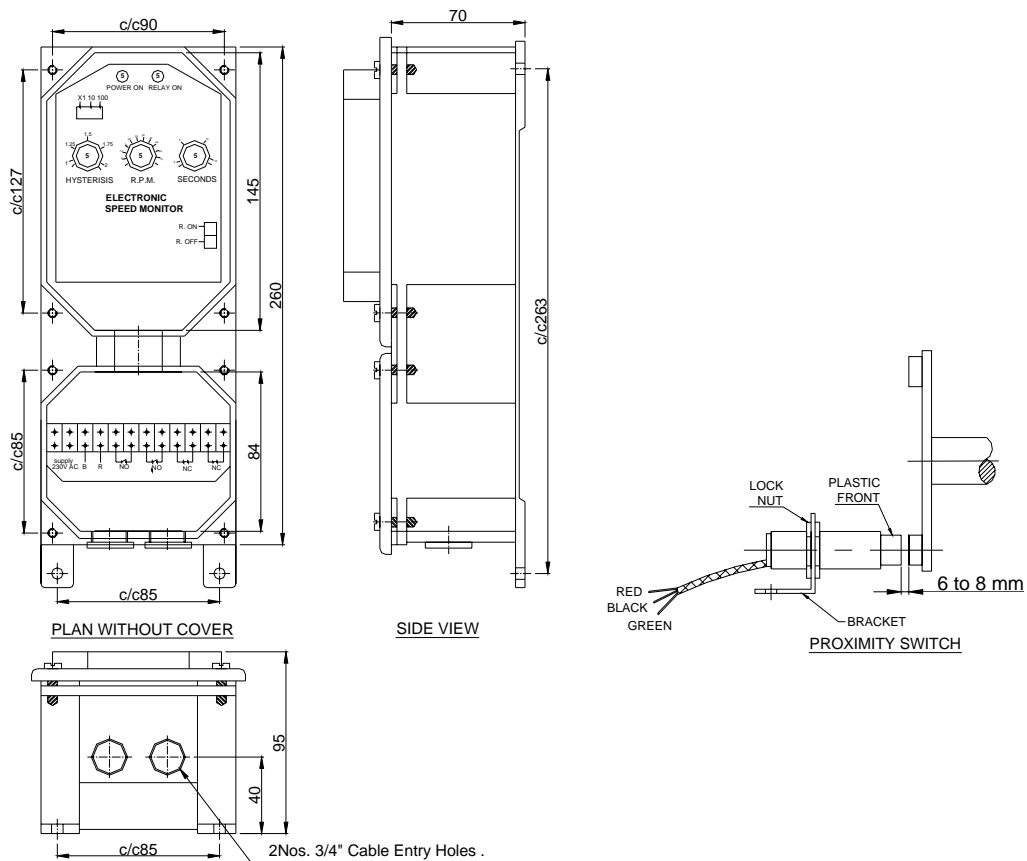
#### ORDERING INFORMATION

- Give **KAKKU** type
- Specify optional extras if any.
- Operating Voltage (415/230/110 V AC)
- Number of contacts

*Product improvement is a continuous process at KAKKU. Hence data given in this catalogue is subject to revision without notice.*



**Symbol Of Reliability**



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**Electronic & Power Control Co.**

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