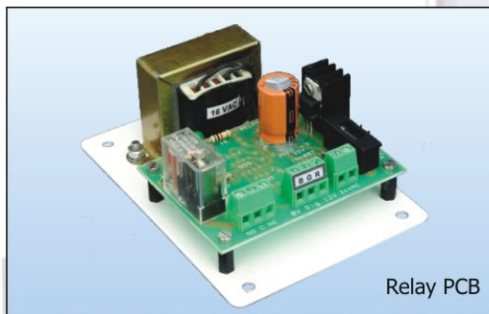


Weft Break Sensor

The Weft Break Sensor (Magnetic Sensor) is a highly sophisticated and reliable device to sense the weft breakage, empty bobbin, and uneven weft tension in Circular Loom. The design of sensor is heavy-duty type and suitable for environmental conditions of Plastic Woven Sacks Industry. The sensor works on principle of magnetism, there by eliminating the malfunction due to dust, ambient light, reflection of fabric, which are prominent in light based sensors. The sensor is totally sealed and hence virtually no maintenance is required in day-to-day operations. The installation is very simple and requires fitting of boom reflector assemblies (with magnets fitted in place of diamond) on boom pipe, mounting of sensor on the loom and fitting of relay card in panel. The magnets are arranged in such away that north and south poles of the magnets come under sensor alternately, avoiding magnetization of sensor. The 3-core wire from sensor connects to relay PCB. When shuttle bobbin runs out of the tape or if the shuttle tape breaks, then the magnet rotates and comes under weft break sensor. This magnetic field is sensed by sensor, and relay is energized. The contact of the relay stops the loom and missing tape is crammed in fabric. For 24 V DC operation PNP/NPN output in-line PCB is also available as replacement of relay PCB.

Advantages :

- ▶ The fabric wastage due to tape breakage in shuttle bobbin is totally avoided, as loom stops immediately when tape breaks.
- ▶ One operator can handle multiple looms, as he does not have to monitor the weft constantly.
- ▶ There is no effect of dust, calcium carbonate, ambient light, and tape color, as the sensor works on principle of magnetism.
- ▶ The pay back of the weft sensor is fast due to more production, improved quality, less down time of the loom and reduced wastage.



Technical Specifications

Sensor diameter	19mm
Sensor length	131mm
Sensing distance	32mm & above
Type of sensing	Magnetic
Magnet Orientation	Alternately North & South
Loom type supported	Four ,Six or Eight Shuttle
Type of magnet holder	Boom reflector Assembly
Sensor cable length	5.5meter (8.5 meter optional)
Loom speed	270 - 1000 picks per minute
Relay contact	1NO / 1NC
Supply voltage	24volt AC,+ / - 10%
Supply frequency	50 Cycles
Power Required	0.5watt (Maximum 2.0 watts)
Operating Temperature	up to 50 Degree Centigrade
Weight	1.6 Kg

Different types of Magnet Holder Assemblies

