Weft Sensor (Magnetic Sensor) for Weft Break Detection

The Weft sensor is a highly sophisticated and reliable device to sense the weft breakages, empty bobbin, and uneven weft tension of shuttle 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, thereby 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, if setting is not disturbed. 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 a way 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 sensor. This magnetic field is sensed by sensor, and Relay is energized. The contact of the Relay is wired to stop the loom and missing tape is compensated by cramming the fabric. Cramming device avoids gap due to missing tape.

Weft Sensor is also available in 24V DC for direct connectivity to loom Controller. Relay PCB is not required for this model. PNP and NPN output options are available.

- **Options**
- **12V DC Regular sensor with Relay PCB suitable for any Loom**
- **24V DC PNP or NPN sensor for direct connection to Loom controller**

- **The Advantages of Weft Sensor for weft Break**

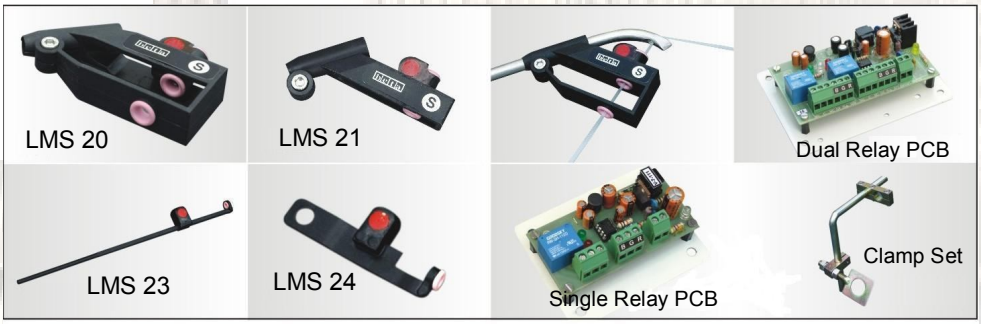
➢ The fabric wastage due to tape breakage in shuttle bobbin is totally avoided, as Loom stops immediately when tape breaks.

➢ One operator can handle multiple Looms, as he does not have monitor the fabric constantly.

➢ There is no effect do 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 of fabric.

- **Different types of Magnet Holder Assemblies, Relay PCB's, Clamp**



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