FIBER OPTIC YARN BREAK DETECTION

FEATURES:

• Highest detection speed at 5 microseconds (5/1,000,000 of a second). Conventional sensors operate in the range of 5 to 10 milliseconds (5/1000 of a second). Able to detect minute objects at very high speeds.

• Our transmitter emits a very large diameter light beam, and our receiver only has to be located somewhere in that beam to be effective. Renders machine vibration a non-issue – no more false stops or sensor recalibration due to vibration.

• Strategic Sensor Positioning – our very small micro-sensors can be positioned in the most strategic locations, very close to the yarn web so as to be 100% effective in identifying broken yarn ends wherever they may occur.

• Our micro-sensors are small enough to be positioned so as to eliminate false stops created by yarn “flutter”.

• Application sensitive fine-tuning for precise control. Our Dual Digital Display allows accurate monitoring of the light incident level as a real-time number.
• Initial set-up and continued real-time monitoring of the sensing conditions via our Dual Digital Display Control Module.

• Precise configuration of the switching threshold via the Control Module. No guessing of the sensitivity settings.

• The Auto-Correct Function eliminates LED light degradation that occurs over time.

• Our powerful optical beam ensures stable sensing conditions in harsh environments. Sensor contamination caused by lint, oil, grease and ambient light are minimized.

• Zone Alarm Lights on the Control Panel allows the operator to quickly find the broken end.

• Overall system control is accomplished via a Programmable Linear Controller. Easily integrated into the Essex Smart Tufting Management System for date gathering.

**BENEFITS:**

• Simple set-up and continuous monitoring of the sensing settings allows operation at optimal conditions.

• Strategic Sensor Positioning insures that all broken ends are captured.

• Approaching 100% Zero Mend Defect conditions.

• Very little maintenance is required since sensor realignment due to machine vibration has been eliminated. Less maintenance means less machine downtime…the system is working on your behalf all the time.

• By capturing broken ends before they reach the needles and thereby minimizing re-threading of the yarn through the entire machine…overall machine efficiency is increased.

• Fewer mend defects = better quality carpet produced.

• Bottom line – more carpet produced in less time, better quality carpet, cheaper prices and faster delivery.