

Presse Release Sensor Instruments

February 2020

Wire Counting at Stranding Machines

27 February 2020. Sensor Instruments GmbH: In the production of cables or of high-voltage lines the individual insulated conductors or aluminium wires must be stranded, which in practice is performed by stranding machines. In this process the individual conductors or wires are wound around a core wire. The core wire with relative ease can be inspected for possible wire breaks by using a suitable laser light barrier operating with the transmitted-light method (e.g. D-LAS2-Qinv-d0.15-R + D-LAS2-d0.15-T).

An inspection of the outer conductors or outer wires can be realised with a correspondingly adapted edge detector of the **RED series (RED-110-P-F60)**. For this purpose the laser beam of the RED sensor is focused on the position of the outer conductors or outer wires. While the outer conductors (wires) are rotating, the laser spot alternately shines on the outer conductors (wires) and on the background. This means that with every outer conductor (wire) the counter reading in the laser sensor is increased by one value. In parallel to this a rotary encoder always informs the sensor about the 0° position of the shaft during the rotation of the stranding machine, which means that the counter is reset every time at this angle position. Immediately before this reset the current counter result is compared with the setpoint value (number of conductors or wires), and if these values match a digital switching signal is sent to the controller of the stranding machine.





Signal evaluation of edge detector RED-110-P with the RED-Scope Windows® software.

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