

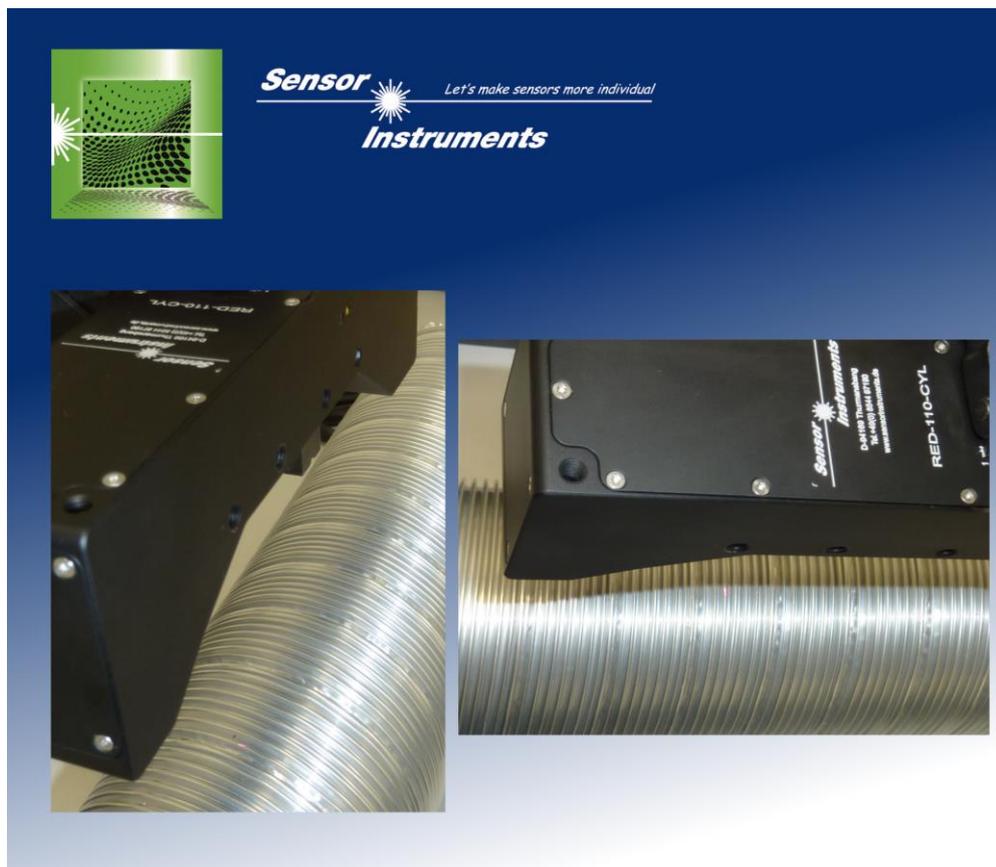
Press Release Sensor Instruments

April 2020

Counting Folds at Flex-Pipe

7 April 2020. Sensor Instruments GmbH: In the production of aluminium flex-pipes the decisive factor is not really the measured length of the flex-pipes but rather the number of existing folds, because due to the material's "accordion effect" the actual length cannot be accurately measured.

In this application an edge detector of the **RED series** (e.g. **RED-50-L** or **RED-110-L**) is used to count the folds. During edge counting the aluminium flex-pipe is moved along the laser sensor. The sensor provides a digital output signal for every edge. Multiple-pulse suppression is integrated in the sensor firmware (dynamic dead time, pulse lengthening, and edge hysteresis) and allows exact and error-free counting. The sensor is able to detect folds starting from a depth and width of approx. 0.1 mm. The RED sensors feature a maximum scan frequency of approx. 85 kHz, and at the optimal operating distance (50 mm or 110 mm) the laser spot has a size of typ. 3 mm x 0.08 mm.





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

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