## **Press Release Sensor Instruments**

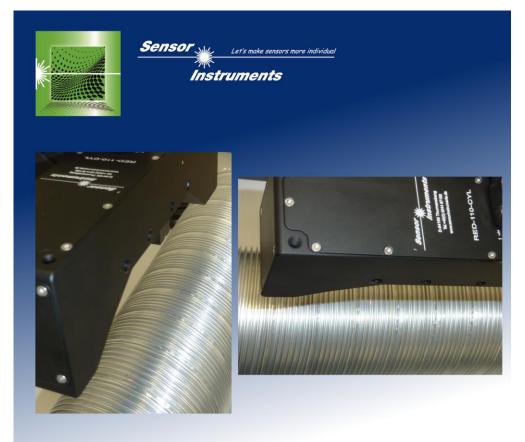
April 2020

## **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.

Sensor

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.



Let's make sensors more individual

Instruments

Sensor Instruments GmbH		Sensor 🔐	
++49 (0) 8544-9719-0 v sensorinstruments.de		RED Scope V1.0	Instruments
NNECT PARA TEACH	RECORDER SCOPE	TIME CALCULATION IS BASED ON THE CYCLE TIME IN THE DISPLAY [ms]	CLOS
GET CYCLE TIME		delta X [ms] 264.447 delta Y [digit] 1367	SIGNAL ALL
7941	[ms] 0.126		
GGER MODE	INTERN OUT0	3750-	
E TRIGGER VALUES [064]	10		
GGER LEVEL [04096]	2000	3000-WWWWWWWWWWWWW	
AN RATE [160 000]	50	2750-	
SCAN	BREAK SCAN	2250-	
PRINT SCO	PE GRAPH	2000-VV W/V V/V	
MMENT (ADD TO PRINT)		1500-	
D-110-L distance to the object	: 100mm 스	1250- 1000- 750- 500-	
		250- 0- 0 13 26 38 51 64 77	90 102 115 1
		IN0	
	GO		

Signal evaluation of edge detector RED-110-L with the RED-Scope  ${\sf Windows} \ensuremath{\mathbb{R}}$  software

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