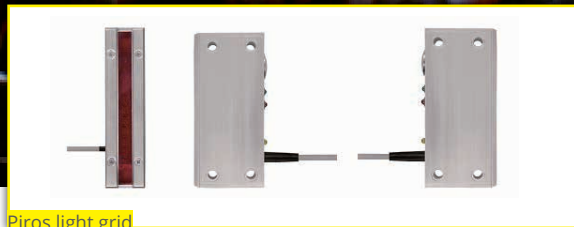


Monitoring of a strip roller path

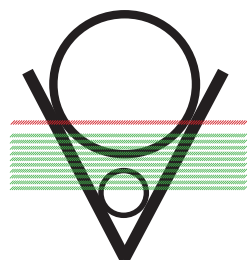
Secure detection with the Piros light grid



The exactness of the tube length measurement depends on the capability for reproduction to detect the tubes beginning and end. A tube rolling mill needed length measurement directly at the conveyor track of the subsequent production. An easy commissioning, high repeatability and an integrated error monitoring were in demand.

As there are tubes of different sizes in process, they have decided on the Proxitron light grid. Different tube diameters lead in a V-conveyor to a very divergent height position of the pipe. Therefore the tube beginning and end can't be detected with a light barrier (red). However, the Piros light grid detects objects in a field within the barrier height (green). This ensures the safe detection of the tubes, even if the tube diameters are changing. If a tube is detected by the light grid, the counter in the system control is set to zero. By means of an incremental rotary transmitter which runs with the tube, exact length measuring up to +/- 1 mm is possible.

The Piros light grid works as a light barrier with 10 single lines in the grid of 8 mm. The invisible infrared radiation between transmitter and receiver scans a height of 75 mm on entering material.



A contamination output at the light grid ensures a reliable production even under extremely dusty or dirty conditions. The intermittent short circuit protection protects both outputs in case of overload.

Proxitron light grids are available with a barrier width from up to 1400 mm.

At a glance

- Barrier width 1400 mm
- Adjustable measuring rate
- Contamination output
- Minimum object size: 15 mm Ø

Technical data

Barrier width:	1400 mm
Barrier height:	75 mm
Operating voltage:	24 V DC
Ambient temperature:	-25 up to +70°C
Housing material:	Aluminium
Output:	PNP n.o. / n.c. switchable
Contamination output:	PNP n.c.
Measuring frequency, adjustable:	10 up to 400 Hz
Short circuit protection:	yes