**Sensors**

**Switches**

**Controls**

# Application notes

**Application Note :** June 2021

**Market involved :** Materials handling, Packaging machinery

**Product :** PD30CT...IO

**Customer :** OEMs

**Subject :** Speed and length monitoring
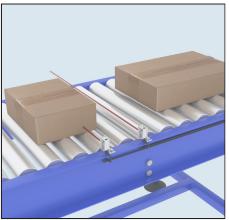
### CUSTOMER ISSUE :

In a packaging line it is necessary to sort the boxes based on their length/size.

In case the conveyor varies in speed, it is required a solution that can compensate it.

### OUR SOLUTION :

The PD30CT...IO or the PD30ET...IO are available in Diffuse reflective, Background suppression or Retro-reflective versions that can be suitable for this application.

By means of the IO-Link the sensor can be configured to run the operation together with an IO-Link master and a PLC.

An implemented "Speed and Length" function allows two interconnected sensors to constantly monitor both the speed of the conveyor and the length of the box.

### BENEFITS :

- The two sensors are interconnected and placed with a known distance between them. Once a box has interrupted the two sensors the Main sensor will calculate the conveyor speed. Once the box has fully passed the Main sensor, the length is calculated in the sensor. The measured speed and length can be read by the PLC through the IO-Link master directly in [mm/s] and [mm].

- The IO-Link allows easy customization of distance, timer, logic functions as well as different output configurations.