

PRESS RELEASE

Decentralized control of accumulating conveyors with ZoneControl®

Waldkirch/Nuremberg, November 2014 – Under the product name of ZoneControl®, SICK supplies intelligent sensor solutions for object detection on accumulating roller conveyors. In this way, one can effectively relieve the automation system of the conveyor system.

Accumulating roller conveyors are used in many instances as zero-pressure buffering sections in automated conveyor systems. Depending on the design, they certainly differ in terms of roller diameters, roller pitches, and drive concepts. However, as a section within a material flow segment, they always serve the task of contributing to the highest and most consistent utilization of the conveying system possible by temporarily accumulating cartons, containers, and pallets in and subsequently moving them out of the accumulation zone.

ZoneControl®: SICK sensors control accumulation and release processes

In this environment, the ZoneControl® sensors from SICK provide interesting options for detecting conveyed objects arriving, identifying free accumulation spaces, ensuring process-compatible departing of conveyed objects, thus utilizing storage capacity in the best possible way depending on the desired degree of singulation or collection, respectively. Due to their special design, the exclusively detecting and switching roller sensor “R” for stand-alone use as well as the intelligent roller sensor “IR” featuring integrated logic, series connection function, and switching output can be installed even below or between the rollers. This saves space and prevents collisions with the conveyed goods. Both bright and dark goods conveyed are detected alike in a reliable way. The minimized blind zone allows detecting objects at close range. The high-performance background suppression protects the sensors from reflections and the light of HF lamps, for instance. Thanks to the IP 67 enclosure rating, the ZoneControl® sensors are suitable for use even in places where conditions are harsh or where facilities undergo regular external cleaning.

PRESS RELEASE

Decentralized logic relieves automation system

Especially when a large number of sensor queries are required, the ZoneControl® IR sensors are the ideal solution. The series connection minimizes wiring effort on the accumulating roller conveyor. The integrated logic processes the signals of the adjacent sensors as well, organizing the stop & go on the accumulating conveyor largely autonomously – which reduces the amount of data and the communication load as well as relieves the automation system. The demand-oriented switching on and off by the IR sensor, implemented by means of the sleep-awake function, increases the service life of the motorized rollers. Another advantage: In contrast to direct star-shaped wiring with a PLC programmable logic controller, adding a new accumulating conveyor as a module involves hardly any effort for integration.