

Customer Requirement:

Detect objects within opening of industrial roll-up doors

Banner Solution:

SB12 sensors with 20 m extended range and input wire to remotely verify sensor functionality

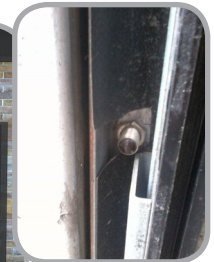
Why Banner?

Long-range sensing from a small, affordable package—the SB12's modified range meets the manufacturer's 20 m requirement and its compact design fits into existing door framework

Customer Benefits:

- **Easy retrofit**—the manufacturer was able to quickly retrofit door frames with minimal modifications and costs
- **Versatility**—the SB12's compact design and enhanced range enabled the manufacturer to use the sensors across their product line

Long-range SB12 meets door manufacturer's retrofit requirements



A pair of SB12 sensors are mounted inside the industrial roll-up door track, 8-12 inches above the ground. When the sensors detect an object in the door opening, they send a signal to prevent the doors from closing.

Background

A European-based company manufactures high speed roll-up doors for industries ranging from food and beverage plants to car washes and airports. These doors are wide enough to allow pallets, forklifts and other equipment in and out of facilities.

Challenge

The manufacturer was looking to replace the photoelectric sensors they had been using to prevent doors from rolling down when objects are present. The solution needed to meet several requirements. First, the new sensors needed to be small enough to fit into the existing brackets yet powerful enough to fulfill a 20 meter sensing range. Second, functionality for remote testing was also important; the manufacturer wanted to verify that the sensors were working properly without having to cycle power from the sensors themselves.

Solution

After looking at the competition, the manufacturer realized that Banner was flexible enough to meet both their budget and technical requirements. Banner modified the standard SB12 sensor without changing its compact housing—one of its most attractive features. First, the standard beam range was greatly enhanced from 1.5 meters to 20 meters, allowing the manufacturer to use the SB12s with all their doors, which range from 3-15 meters in width. Second, an input wire was added to enable remote testing. By toggling power to the emitter LED from a PLC, users can verify that the receiver changes state. And because the SB12 is compact enough to fit into the manufacturer's existing brackets, they did not need to spend additional costs on altering framework.



SB12 Special Features:

- Model Number: SB12E1-19362
- 20 meter range capability (vs. standard 1.5 meter range)
- Input wire for sensor testing—users remotely toggle power to emitter LED to verify that the receiver's output changes

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- [Standard SB12 Series Overview](#)
- [Product Literature](#)