

## New generation of photoelectric sensors for the versatile detection of objects

# FLEXIBLE USE IN ROBUST CUBIC STANDARD HOUSING

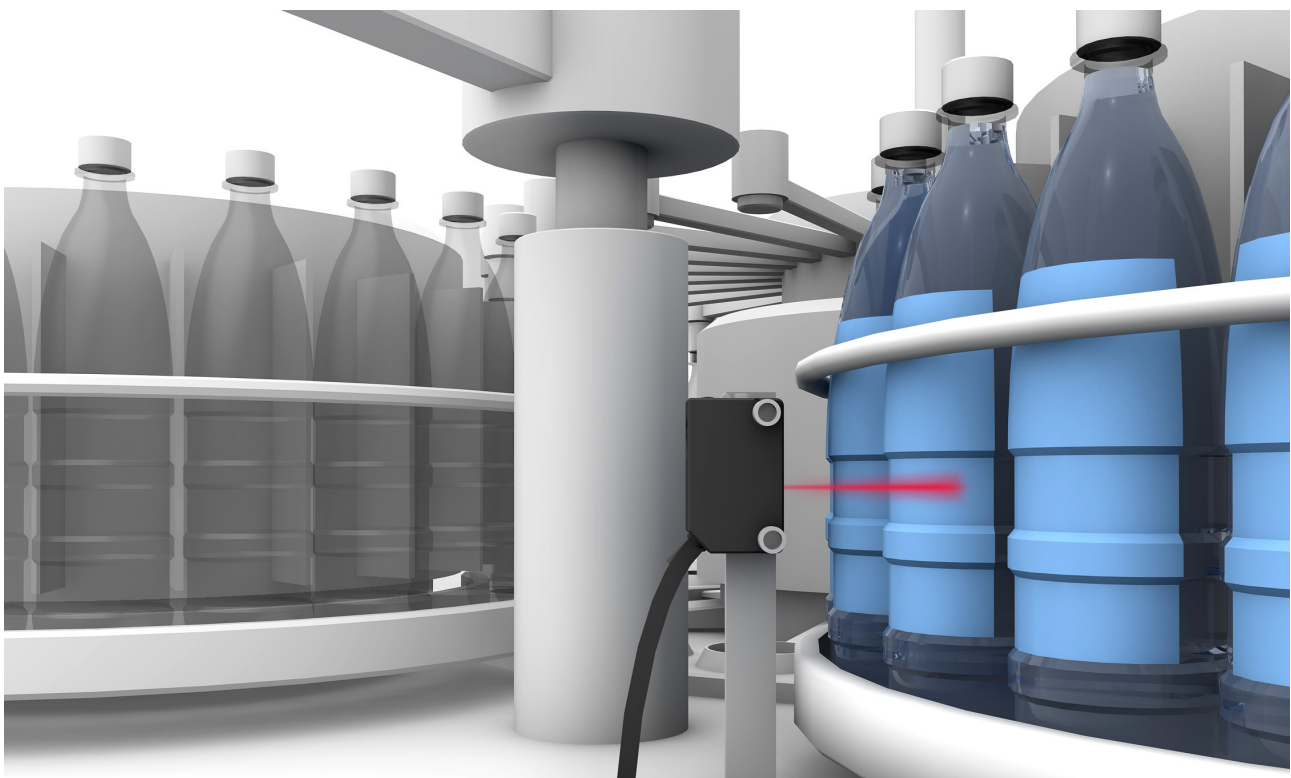
With a new generation of optoelectronic sensors, Balluff offers a universally applicable and reliable solution for detecting objects and expands its globally established product family. These new sensors have compact and robust cubic standard housings and include all sensor principles – including photoelectric proximity switches with and without background suppression, retro-reflective sensors, and through-beam sensors. The sensors are available with both invisible infrared light and red light, which is highly visible and, thus, easy to align.

The integrated wide beam version with its 100 mm range, as well as the smaller beam version with its 50...150 mm range, offer high flexibility. The same applies to their uncomplicated normally closed/normally open switching and potentiometer, which enables quick and easy sensitivity adjustment.

Thanks to their versatile features, these new photoelectric sensors reliably and accurately detect a wide range of objects – regardless of shape, color or material. The field of application is diverse because of this color and material autonomy. Photoelectric proximity switches in the food and beverage industry can detect plastic bottles easily and reliably. Through-beam photoelectric sensors are often used to detect foodstuffs filled in cardboard packaging, such as breakfast cereals or noodles. Retro-reflective sensors can be used to detect small pallets of colored plastic that pass over a conveyor belt – ideal for factory automation, life science, metalworking, and the automotive sector. In the latter, through-beam sensors with long-range detection, can detect the car body before it is dipped in primer, for example, or small components, such as plastic trim, can be detected by a photoelectric proximity switch with background suppression.

### Features

- Robust sensor design
- Variable range and high detection range thanks to wide beam (optimized for non-uniform objects), small beam (improved small part detection), and long range (range up to 1 meter)
- Quick and easy sensitivity adjustment with potentiometer
- Flexible operation thanks to uncomplicated normally closed/normally open switching
- Wide range of applications thanks to integration of all major sensor principles, application freely configurable
- IP67 protection class
- UKCA and cULus approval



In the food and beverage industry, photoelectric proximity switches detect plastic bottles easily and reliably.

BOS PHOTOELECTRIC SENSORS



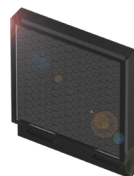
	BOS029M	BOS02AH	BOS02A9	BOS02AJ
Dimension	43.5 × 19.5 × 10.8 mm	43.5 × 19.5 × 10.8 mm	43.5 × 19.5 × 10.8 mm	43.5 × 19.5 × 10.8 mm
Principle of operation	Diffuse sensor with background suppression	Diffuse, broad beam	Diffuse, small beam	Diffuse
Light type	LED, red light	LED, infrared	LED, red light	LED, red light
Range	350 mm	100 mm	50...150 mm	500 mm
Connection	M8 connector, 4-pin	M8 connector, 4-pin	M8 connector, 4-pin	M8 connector, 4-pin
Operating voltage	10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC
Approval/conformity	CE, cULus, UKCA, EAC	CE, cULus, UKCA, EAC	CE, cULus, UKCA, EAC	CE, cULus, UKCA, EAC

BOS PHOTOELECTRIC SENSORS



	BOS02AF	BOS02A3	BOS02AR	
Dimension	43.5 × 19.5 × 10.8 mm	43.5 × 19.5 × 10.8 mm	43.5 × 19.5 × 10.8 mm	
Principle of operation	Diffuse	Retroreflective sensor	Through-beam sensor	
Light type	LED, infrared	LED, red light	LED, red light	
Range	1 m	5 m	20 m	
Connection	M8 connector, 4-pin	M8 connector, 4-pin	M8 connector, 4-pin	
Operating voltage	10...30 V DC	10...30 V DC	10...30 V DC	
Approval/conformity	CE, cULus, UKCA, EAC	CE, cULus, UKCA, EAC	CE, cULus, UKCA, EAC	

ACCESSORIES



	BAM00WL
Description	Reflector for photoelectric retroreflective sensors

CONNECTIVITY



	BCC02N2	BCC02NC
Connection	M8 female, straight, 4-pin, A-coded	M8 female, right-angle, 4-pin, A-coded
Cable	2 m PUR, black, drag chain compatible	2 m PUR, black, drag chain compatible