

Guardmaster SC300 Hand Detection Safety Sensor



Vision-Based Protective Device
for Type 3 Safety Applications

Features

- Compact die-cast aluminum housing is designed to be mounted to the inside of, or to the side of a frame
- Angular field of view of 110°
- Automatic alignment
- Two SC300s installed back to back with synchronization inputs connected doubles the maximum opening dimension
- No software required to program-monitored opening area
- cULus recognized, and CE marked for applicable directives
- PLd (EN ISO 13849), SIL2 (IEC 61508), Type 3 (IEC 61496), Category 3 (EN ISO 13849)
- Suitable for Category 3 machine guarding applications
- Horizontal or vertical mounting
- Integrated EDM, ReStart/Reset and Teach-in

Benefits

- A cost-effective solution for a variety of machine guarding applications
- Design optimized for ease of installation in tight applications
- One size fits all solution reduces the need to size the opening and select the appropriate light curtain protective height and resolution



The Allen-Bradley® Guardmaster® SC300 is a Type 3 vision-based protective device designed for use in a variety of machine guarding applications.

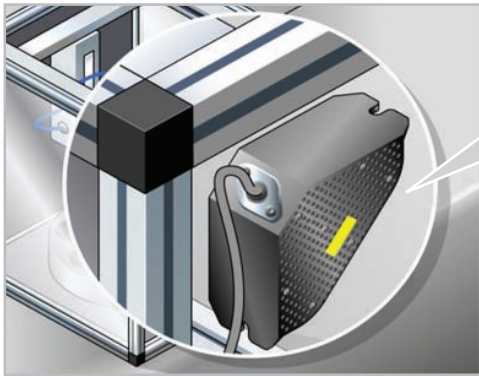
This latest addition to the Rockwell Automation® safety opto-electronic product family is targeted to light and medium industrial machine guarding applications which have a square or rectangular frame in front of the hazardous area and an environmental rating requirement of IP54.

The sensing function is performed by the SC300 viewing a two-dimensional image against a passive pattern as the background. The detection principle is that the view of the pattern is blocked by an object of the appropriate resolution (24mm or 30mm).

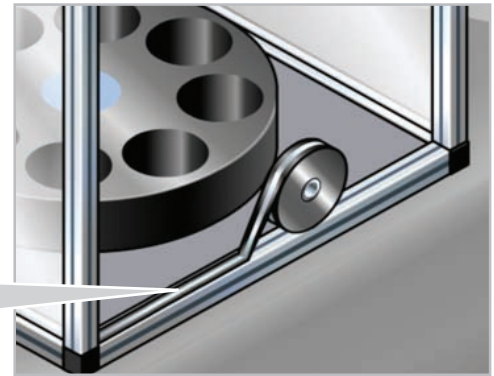
LISTEN.
THINK.
SOLVE.®

Simple Installation and Commissioning

Installation and commissioning of the SC300 is quick and easy. Simply, mount the SC300 to the frame, apply the reflective strips, connect the power cord, teach the SC300 the location of the reflective strips and verify the sensing area with the supplied test rod.



1) Install Sensor in corner of opening



2) Apply reflective strips



3) Press teach button or use external key switch

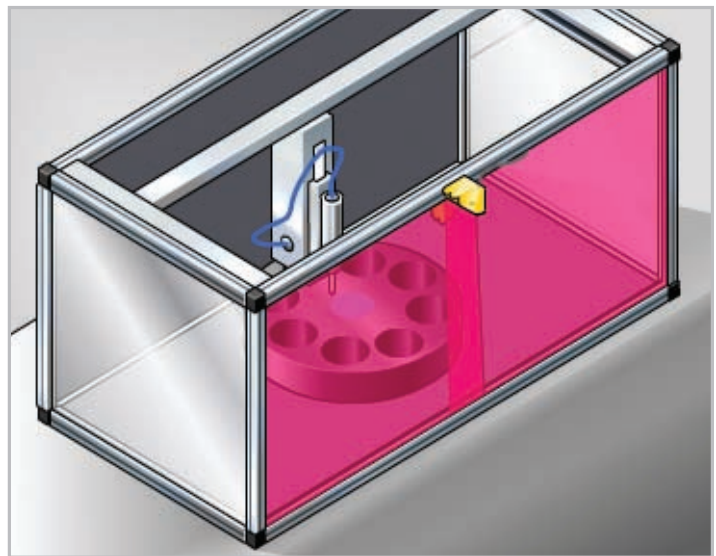
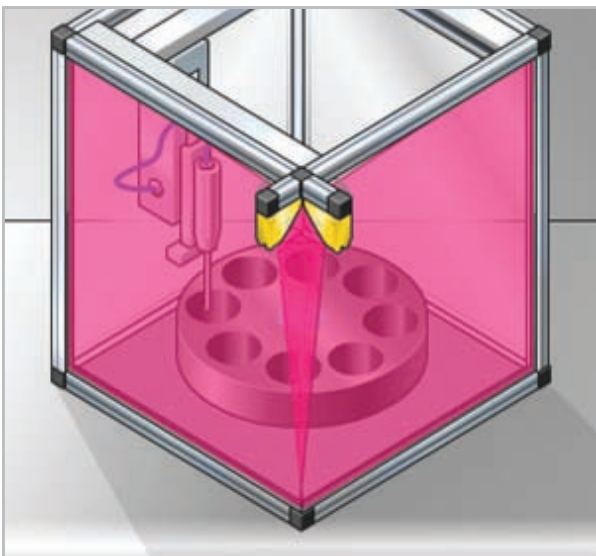
4) Verify function using test rod



Two cameras can be synchronized to expand opening or for multiple-sided guarding

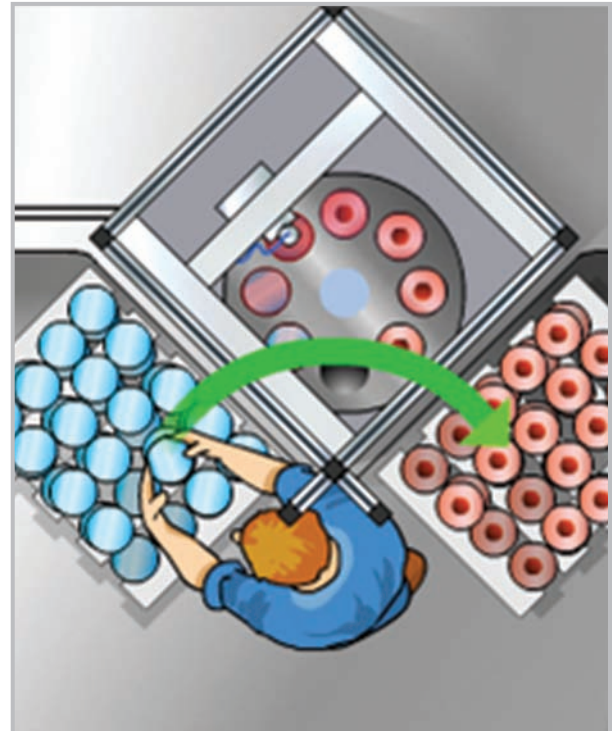
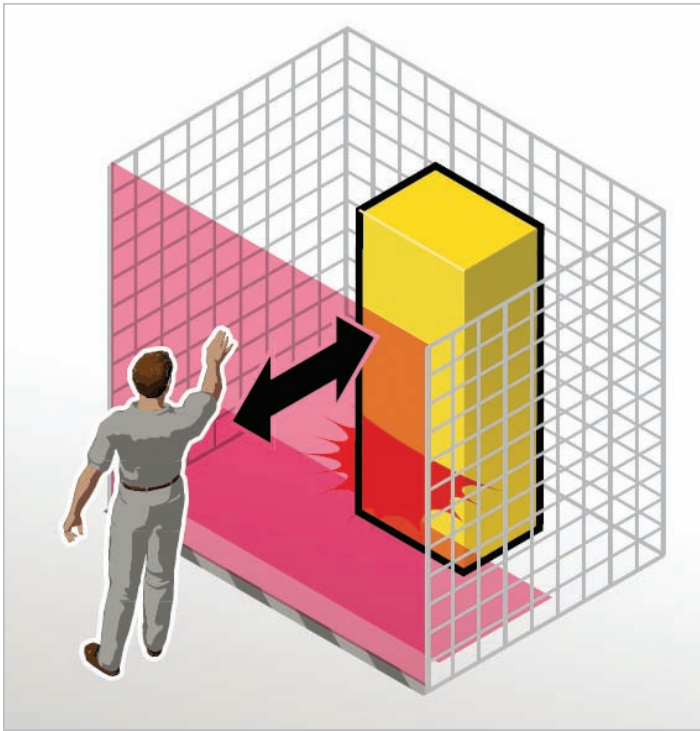
The SC300 has a 20 ms response time and stops the machine movement if someone reaches into the machine frame opening during processing activities. The protective fields can be adapted to the application during commissioning.

In applications where a larger monitored area is required, two SC300s can be mounted back to back and interconnected via a serial synchronization input, doubling the maximum opening dimension.



Hand Detection Safety Sensor for a variety of opening orientations

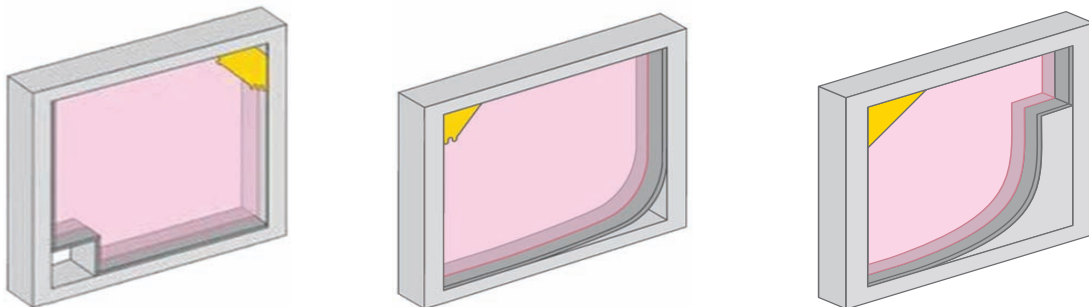
The new SC300 hand detection safety sensor offers a one size fits all solution for openings up to 1.5 meters (4.9 ft) x 1.5 meters (4.9 ft). This reduces the number of protective heights of safety light curtains required to monitor these openings.



Vision-based detection capability allows flexibility in guarding a variety of shape openings

The SC300 is designed to be mounted in the frame or on the outside or inside corner of a machine frame opening opposite Rockwell Automation supplied reflective strips that are adhered to two sides of the frame and define the boundary of the sensing area.

The entire length of the reflective tape is monitored by the SC300 after the powering up and then teaching the device the position of the continuous reflective strip. This reflective strip can be adapted to a variety of opening shapes.



General Ordering Information

	Product Description	Catalog Number
	Guardmaster SC300 Hand Detection Safety Sensor	442L-SAFCAM1
Required Kit – Select One		
	SC300 safety camera, reflective tape kit, 2 pcs 1.2 meter strips, 24mm resolution with test rod.	442L-ACAM24MMKIT
	SC300 safety camera, reflective tape kit, 2 pcs 1.5 meter strips, 30mm resolution with test rod.	442L-ACAM30MMKIT
Cabling		
	Cordset, 2 meter PVC shielded, M12 straight female 8-pin QD, 22AWG, 300V	889D-F8FB-2
	Cordset, 5 meter PVC shielded, M12 straight female 8-pin QD, 22AWG, 300V	889D-F8FB-5
	Cordset, 10 meter PVC shielded, M12 straight female 8-pin QD, 22AWG, 300V	889D-F8FB-10
Optional Accessories		
	SC300 safety camera mounting brackets (2 brackets per kit includes 2 – M6 stainless steel socket head screws)	442L-ACAMBRK1

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