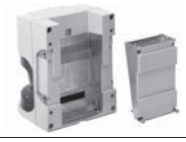
Product Selection

Singlezone Safety Laser Scanner System Components

Item	Description		Cat. No.
1		Scan head and I/O module assembly	**442L-SFZNSZ**
2		Prewired 13 conductor cable with memory module (10 or 20 m (32.8 or 65.6 ft) required)	**442L-CSFZNMZ-10** 442L-CSFZNMZ-20
3	2 m (6.56 ft) RS232 program cable (required) or		**442L-ACRS232**
	10 m (32.8 ft) RS232 program cable		442L-ACRS232-8

Multizone Safety Laser Scanner System Components

Item	Description		Cat. No.
1		Scan head and I/O Module (required)	**442L-SFZNMZ**
2		Prewired 13 conductor cable with memory module (10 or 20 m (32.8 or 65.6 ft) required)	**442L-CSFZNMZ-10** 442L-CSFZNMZ-20
3	2 m (6.56 ft) RS232 program cable (required)		**442L-ACRS232**
	10 m (32.8 ft) RS232 program cable		442L-ACRS232-8

Note: A SafeZone safety laser scanner system requires the scan head and I/O module assembly (1) with either a 10 or 20 meter prewired memory module (2) and a programming cable (3).

Recommended Logic Interfaces

Description	Safety Outputs	Auxiliary Outputs	Terminals	Reset Type	Power Supply	Cat. Page No.	Cat. No.
Single-Function Safety Relays for 2 N.C. Contact Switch							
MSR127RP	3 N.O.	1 N.C.	Removable (Screw)	Monitored Manual	24V AC/DC	5-26	**440R-N23135**
MSR127TP	3 N.O.	1 N.C.	Removable (Screw)	Auto./Manual	24V AC/DC	5-26	**440R-N23132**
MSR126	2 N.O.	None	Fixed	Auto./Manual	24V AC/DC	5-24	**440R-N23117**
Modular Safety Relays							
MSR211P Base 2 N.C. only	2 N.O.	1 N.C.	Removable	Auto./Manual or Monitored Manual	24V DC from the base unit	5-84	440R-H23177
MSR221P Input Module	—	—	Removable	—	24V DC from the base unit	5-88	440R-H23179
MSR310P Base	MSR300 Series Output Modules	3 PNP Solid State	Removable	Auto./Manual Monitored Manual	24V DC	5-102	440R-W23219
MSR320P Input Module	—	2 PNP Solid State	Removable	—	24V DC from the base unit	5-106	440R-W23218
Muting Modules							
MSR22LM	2 N.O.	1 N.C.	Removable	Auto./Manual	24V DC	5-48	**440R-P23071**
MSR42 (requires optical interface to configure 445L-AF6150	2 PNP	2 PNP, configurable	Removable	Auto./manual or manual monitored	24V DC	5-52	**440R-P226AGS-NNR**

Safety Laser Scanner

SafeZone™ Singlezone/Multizone

Description

The Allen-Bradley Guardmaster SafeZone safety laser scanners are Type 3 opto-electronic devices, which use the diffuse reflection of emitted infrared laser light to determine the intrusion of a person or object within a defined area. A rotating deflection mirror periodically emits Class 1 (eye safe) infrared laser pulses over a 190° angular area to create a two dimensional detection field.

The reflected light is processed by the SafeZone, which sends a stop signal by switching the state of its OSSD, if it is determined that an object is within the preconfigured sensing field(s).

The SafeZone laser scanners are versatile, rugged, opto-electronic devices in an IP65 housing and are ideally suited for a wide range of industrial applications.

Singlezone

The single field set (warning and safety) can be configured within the maximum scanning range of the device. The Safety Configuration and Diagnostic (SCD) Windows-based software, supplied with each scanner, makes programming the SafeZone singlezone simple. A configuration wizard is available to guide the programmer through simple or complex system configurations.

Multizone

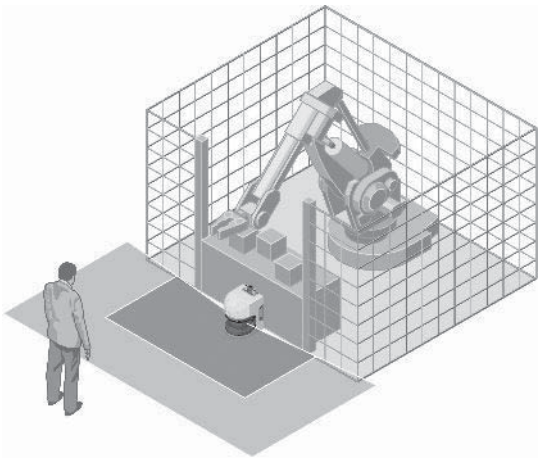
Four switchable zone sets (warning and safety) can be configured within the maximum scanning range of the device. The SCD Windows-based software, supplied with each scanner, simplifies the programming of the SafeZone multizone scanners. A configuration wizard is available to guide the programmer through simple or complex system configurations.

Features

- 190° scanning angle
- Seven-segment diagnostic display
- Configurable resolutions 30, 40, 50, 70, and 150 mm
- Integrated EDM
- Horizontal or vertical mounting
- Four or five meter safety field range

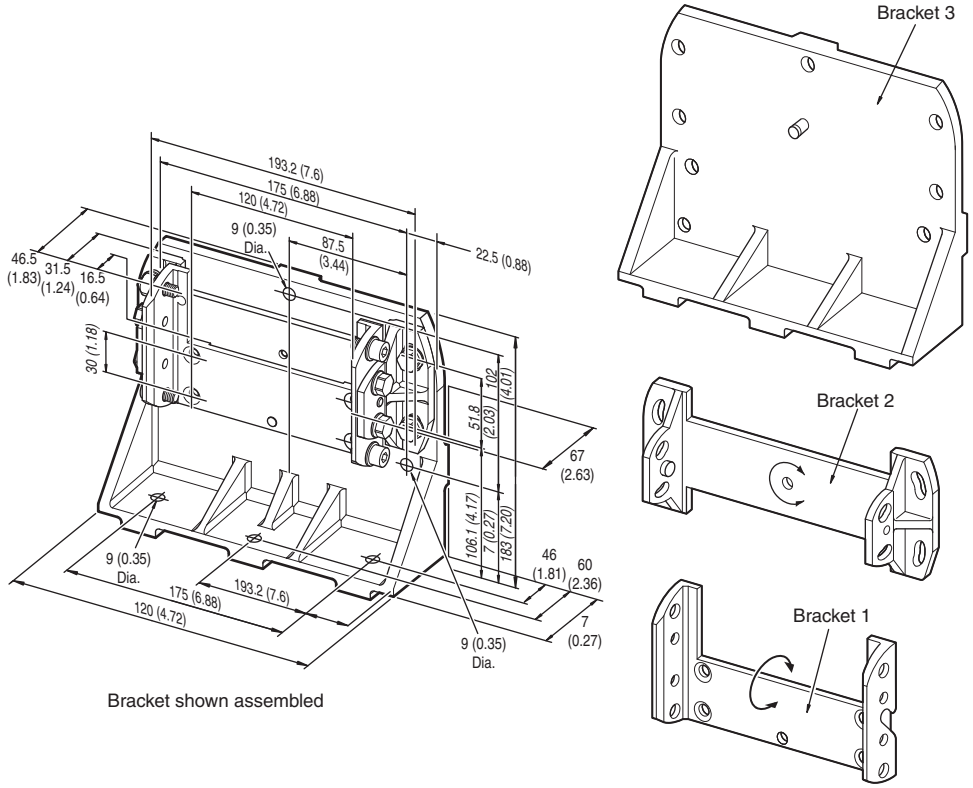
Specifications

Safety Ratings	
Standards	IEC 61496-3, UL 61496, IEC 61508
Safety Classification	Type 3, IEC 61496; SIL CL 2, IEC 61508, IEC 62061; Category 3, PLd EN ISO 13849:2009
Certifications	CE Marked for all applicable directives, TÜV, cULus, Type 3 AOPDDR per IEC 61496, SIL 2 per IEC 61508
Power Supply	
Input Power, Max.	24V DC +20%/-30%
Maximum Residual Ripple	5%
Power Consumption	55 W with max. output load, 19 W without output load
Outputs	
Safety Outputs	2 PNP OSSDs 500 mA short-circuit protection
Auxiliary Outputs	1 PNP OSSD, 500 mA nonsafety
Switching Current @ Voltage, Min.	2 A
Operating Characteristics	
Response Time	60 ms or 120 ms
Status Indicators	OSSDs on, reset required, warning field interruption, front screen contaminated, OSSDs off
Scanning Angle	190° max.
Safety Field Range	4 m (13 ft) for Singlezone 5 m (16.4 ft) for Multizone
Resolution [mm (in.)]	30 (1.18), 40 (1.57), 50 (1.96), 70 (2.75), 150 (5.90)
Angular Resolution	0.25…0.50°
Wavelength	905 nm
Power-Up Delay	9…20 s
Environmental	
Enclosure Type Rating	IP65
Operating Temperature [C (F)]	-5…55° (23…131°)
Storage Temperature [C (F)]	-25…70° (-13…+158°)
Vibration	10…150 Hz, 0.35 mm or 5 g per IEC 61496
Shock	Single: 15 g, 11 ms per EN 60068-2-27 Continuous: 10 g, 16 ms per IEC 61496
Physical Characteristics	
Weight [kg (lb)]	3.3 (7.28)
Material	Die-cast aluminum
Display Window	Polycarbonate
Cable Length	10 m or 20 m (32.8 ft or 65.6 ft)



Bracket Assembly

Dimensions are shown in mm (in.). Dimensions are not intended to be used for installation purposes.



Bracket shown assembled

Approximate Dimensions

Dimensions are shown in mm (in.). Dimensions are not intended to be used for installation purposes.