



# SRA2-AAR140AKZI

safeRS3

SAFETY RADAR SENSORS

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

Type	part no.
SRA2-AAR140AKZI	6073487

Other models and accessories → [www.sick.com/safeRS3](http://www.sick.com/safeRS3)

### Detailed technical data

#### Features

<b>System part</b>	sensor	
<b>Variant</b>	safeRS 4 m	
<b>Manufacturer designation</b>	LBK-S01 (Model), SK (Type)	
<b>Application</b>	Indoor	
<b>Scope</b>	Stationary	
<b>Protective field range</b>	1 m ... 4 m	
<b>Warning field range</b>	1 m ... 4 m	
<b>Number of simultaneously monitored fields</b>	2	
<b>Number of fields</b>	16	
<b>Field of view</b>	Large	110° (horizontal plane)
		30° (vertical plane)
	Narrow	50° (horizontal plane)
		15° (vertical plane)
<b>Response time</b>	≤ 100 ms	
<b>Items supplied</b>	safeRS sensor Safety instruction Operating instructions for download safeRS3 Designer (configuration and diagnostic software) for download The evaluation unit must be ordered separately.	

#### Safety-related parameters

<b>Safety integrity level</b>	SIL 2 (IEC 62061)
<b>Category</b>	Category 2 (outputs category 3) (EN ISO 13849)
<b>Performance level</b>	PL d (EN ISO 13849)
<b>PFH<sub>D</sub> (mean probability of a dangerous failure per hour)</b>	For details, see operating instructions, "Safety-related parameters" section
<b>MTTF<sub>D</sub> (mean time to dangerous failure)</b>	42 years (IEC 60050)
<b>T<sub>M</sub> (mission time)</b>	20 years (EN ISO 13849)
<b>Safe state in the event of a fault</b>	At least one safety relay is in the OFF state

## Functions

<b>Restart interlock</b>	✓
<b>Muting</b>	✓
<b>Manipulation protection</b>	✓
<b>Safe detection of a person</b>	✓

## Interfaces

<b>Connection type</b>	
Voltage supply and signal transmission	Male connector, M12, 5-pin, A-coded
	Female connector, M12, 5-pin, A-coded
	For connection to a safeRS3 evaluation unit

## Electronics

<b>Supply voltage <math>V_s</math></b>	24 V DC (20 V DC ... 28 V DC)
<b>Power consumption</b>	≤ 0.6 A
<b>Power consumption</b>	≤ 11 W, control unit and six sensors

## Mechanics

<b>Dimensions (W x H x D)</b>	85 mm x 85 mm x 53 mm
<b>Housing material</b>	PA 66

## Ambient data

<b>Enclosure rating</b>	IP67 (IEC 60529)
<b>Ambient operating temperature</b>	-30 °C ... +60 °C
<b>Storage temperature</b>	-40 °C ... +80 °C

## Other information

<b>Bandwidth</b>	24 GHz ... 24.25 GHz
<b>Transmissin power</b>	≤ 13 dBm
<b>Radio class</b>	Class 2 (2014/53/EU, RED - radio equipment)
<b>Detection method</b>	FMCW radar for motion detection

## Certificates

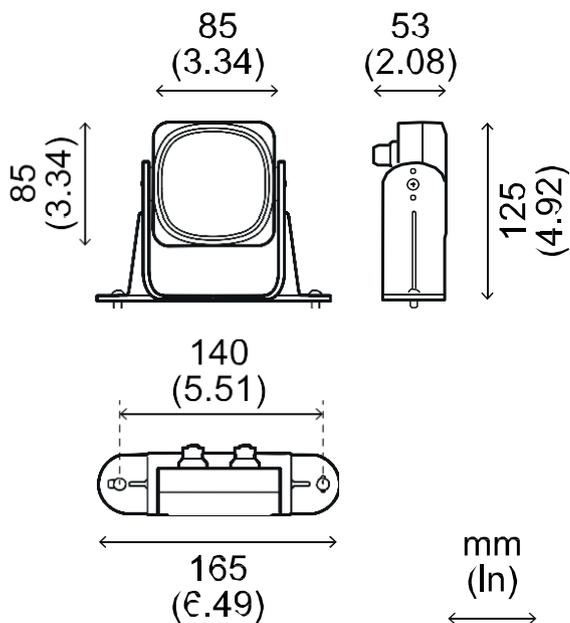
<b>EU declaration of conformity</b>	✓
<b>UK declaration of conformity</b>	✓
<b>cULus certificate</b>	✓
<b>cUL approval</b>	✓
<b>Radio Approval certificate Australia</b>	✓
<b>Radio Approval certificate Brazil</b>	✓
<b>Radio Approval certificate EU</b>	✓
<b>Radio Approval certificate India</b>	✓
<b>Radio Approval certificate Japan</b>	✓
<b>Radio Approval certificate Korea</b>	✓
<b>Radio Approval certificate Mexico</b>	✓
<b>Radio Approval certificate New Zealand</b>	✓

Radio Approval certificate Taiwan	✓
Radio Approval certificate South Africa	✓
RoHS manufacturer declaration	✓

### Classifications

<b>ECLASS 5.0</b>	27270890
<b>ECLASS 5.1.4</b>	27270890
<b>ECLASS 6.0</b>	27280800
<b>ECLASS 6.2</b>	27280800
<b>ECLASS 7.0</b>	27280890
<b>ECLASS 8.0</b>	27280890
<b>ECLASS 8.1</b>	27280890
<b>ECLASS 9.0</b>	27280890
<b>ECLASS 10.0</b>	27280890
<b>ECLASS 11.0</b>	27280890
<b>ECLASS 12.0</b>	27280890
<b>ETIM 5.0</b>	EC001825
<b>ETIM 6.0</b>	EC001825
<b>ETIM 7.0</b>	EC001825
<b>ETIM 8.0</b>	EC001825
<b>UNSPSC 16.0901</b>	39121528

### Dimensional drawing safeRS sensor



Dimensions in mm (inch)

## Recommended accessories

Other models and accessories → [www.sick.com/safeRS3](http://www.sick.com/safeRS3)

	Brief description	Type	part no.
device protection and care			
	<ul style="list-style-type: none"> <li><b>Description:</b> Protective metal housing for safeRS sensor</li> <li><b>Material:</b> Stainless steel</li> <li><b>Items supplied:</b> Protective metal housing incl. mounting kit</li> </ul>	Protective housing	5341984
connectors and cables			
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Male connector, Micro-B, 4-pin, straight</li> <li><b>Connection type head B:</b> Male connector, USB-A, 4-pin, straight</li> <li><b>Signal type:</b> USB 2.0</li> <li><b>Cable:</b> 5 m, 4-wire, PVC</li> <li><b>Description:</b> USB 2.0, shielded</li> </ul>	YMUSA4-050VG4MUJA4	2118400
	Strich		On request
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Male connector, USB-A, 4-pin, straight</li> <li><b>Connection type head B:</b> Female connector, USB-A, 4-pin, straight</li> <li><b>Signal type:</b> USB</li> <li><b>Cable:</b> 10 m, 4-wire, PVC</li> <li><b>Description:</b> USB, shielded</li> <li><b>Note:</b> Used to extend the USB interface by 10 m. The cable can be extended up to 20 m by plugging in another 10 m extension.</li> </ul>	YMUSD4-100VG6FUSE4	6069292
	<ul style="list-style-type: none"> <li><b>Description:</b> USB 2.0, unshielded</li> <li><b>Connection type head A:</b> Male connector, Micro-B, 4-pin, straight</li> <li><b>Connection type head B:</b> Male connector, USB-A, 4-pin, straight</li> <li><b>Signal type:</b> USB 2.0</li> <li><b>Cable:</b> 2 m, 4-wire</li> </ul>	YMUSA4-020VG4MUJA4	6036106
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Male connector, M12, 5-pin, straight, A-coded</li> <li><b>Signal type:</b> CANopen, DeviceNet™</li> <li><b>Description:</b> CANopen, DeviceNet™</li> </ul>	YM2W15-000000XXXX	2123627
Mounting systems			
	Strich		On request
	Strich		On request

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)