

## Safety Light Curtains

### Area Access Control



### Description

The AAC photoelectric safety switch is a single-beam, noncontact presence sensing safety device consisting of separate transmitter and receiver units. The light beam produced between the emitter and receiver provides access protection for hazardous areas.

The AAC serves as a presence sensing safety device for perimeter guarding to protect personnel from potentially hazardous areas such as:

- Robotic work cells
- Machining centres
- Palletizers
- Plastics machinery
- Stackers
- Settling machinery in the stone working industry

### Features

- Long scan range
- Easy installation
- Die cast aluminium housing
- Heated front lens, i.e. it can be used even in outdoor applications

### Specifications

Standards	EN 50100		
Approvals	BG and CE marked for all applicable directives		
Protective Field Range	0.5 to 18m or 15 to 70m		
Number of Beams	1		
Light Beam Diameter	23mm		
<b>Sender/Receiver Unit</b>			
Supply Voltage	24V DC $\pm$ 20% 230V AC +15% to -10% (special order) 115V AC +15% to -10%		
Ripple	Max. 5% of Uv		
Frequency	48 to 62Hz with AC version		
Input, Sender	Test contact		
Test Time	Max. 150ms		
Min. Opening Time of NC Contact for Test	75ms		
<b>Power Consumption</b>			
Voltage Version	24V	115V	230V
Sender Unit	5W	8W	8W
Receiver Unit	8W	11W	11W
Synchronization	Optical		
Outputs	Safety Relays—Max. Operating Frequency 0.2Hz (1 operation in 5 seconds)		
Switching Current (max./min.)	2A/0.02A		
Switching Voltage (max./min.)	250V AC/24V DC		
Response Time	$\leq$ 22ms		
Connection Cable	PG connector: IP67, max cable length 50m		
Front Screen Heating	Standard		
<b>Operating Data</b>			
Protection Class	I		
Enclosure Rating	IP67		
Safety Category	Type 4		
Requirements	EN 50100 Part I/Part II		
Ambient Operating Temperature	-25°C to 55°C		
Storage Temperature	-25°C to 70°C		
Air Humidity	15% to 95%		
Vibration	5g, 10 to 55Hz to IEC 68-2-6		
Impact Resistance	10g, 16ms to IEC 68-2-29		
Weight	Sender unit: approx. 0.9 to 1.3kg Receiver unit: approx. 1 to 1.4kg		

**Product Selection**


**1a. Selection Guide for 0.5m to 18m Range**

Operating Voltage Supply Current	Connection Type	Catalogue Number	
		Transmitter	Receiver
24V DC	Terminal Chamber with Cable Gland (PG13.5 thread)	440L-T4F0018-Q	440L-R4F0018-Q
120V AC		440L-T4F90018-Q	440L-R4F90018-Q

**1b. Selection Guide for 15m to 70m Range**




Operating Voltage Supply Current	Connection Type	Catalogue Number	
		Transmitter	Receiver
24V DC	Terminal Chamber with Cable Gland (PG13.5 thread)	440L-T4F0070-Q	440L-R4F0070-Q
120V AC		440L-T4F90070-Q	440L-R4F90070-Q

**2. Safety Relay Interfaces—Optional if additional outputs required**

	Input Voltage	Reset	Floating Blanking	Fixed Blanking	PSDI	Muting	Safety Outputs	More Details	Catalogue Number
	24V DC	Manual/ Automatic	no	no	no	no	4 amp 2 N.O. Safety 1 N.C. Aux.	58	440L-M8200

**Note:** For wiring refer to Safeguarding Applications section of this catalogue.








**3. Safety Relay Interfaces—Optional**

Relay	Input	Safety Outputs	Auxiliary Outputs	Terminals	Power Supply	Reset	Catalogue Number	
 MSR127RP	1NC, 2NC, or Light Curtain	3 N.O.	1 N.C.	Removable	24V AC/DC	Automatic/Manual	440R-N23132	
						Monitored Manual	440R-N23135	
					115V AC	Automatic/Manual	440R-N23131	
						Monitored Manual	440R-N23134	
					230V AC	Automatic/Manual	440R-N23130	
						Monitored Manual	440R-N23133	
 MSR126	Light Curtain or Single Channel (MSR126T)	2 N.O.	None	Fixed	24V AC/DC	Automatic/Manual	440R-N23117	
							115V AC	440R-N23116
							230V AC	440R-N23115
	24V AC/DC				440R-N23114			
					115V AC		440R-N23113	
					230V AC		440R-N23112	
	Light Curtain or Single Channel (MSR126R)				Monitored Manual	440R-N23123		
						115V AC	440R-N23122	
						230V AC	440R-N23121	
	24V AC/DC					440R-N23120		
						115V AC	440R-N23119	
						230V AC	440R-N23118	
 MSR131RTP	Light Curtain or Safety Mat	3 N.O.	2 N.C. 2 PNP Solid State	Removable	24V AC/DC	Automatic/Manual or Monitored Manual	440R-C23139	
					115V AC		440R-C23137	
					230V AC		440R-C23136	

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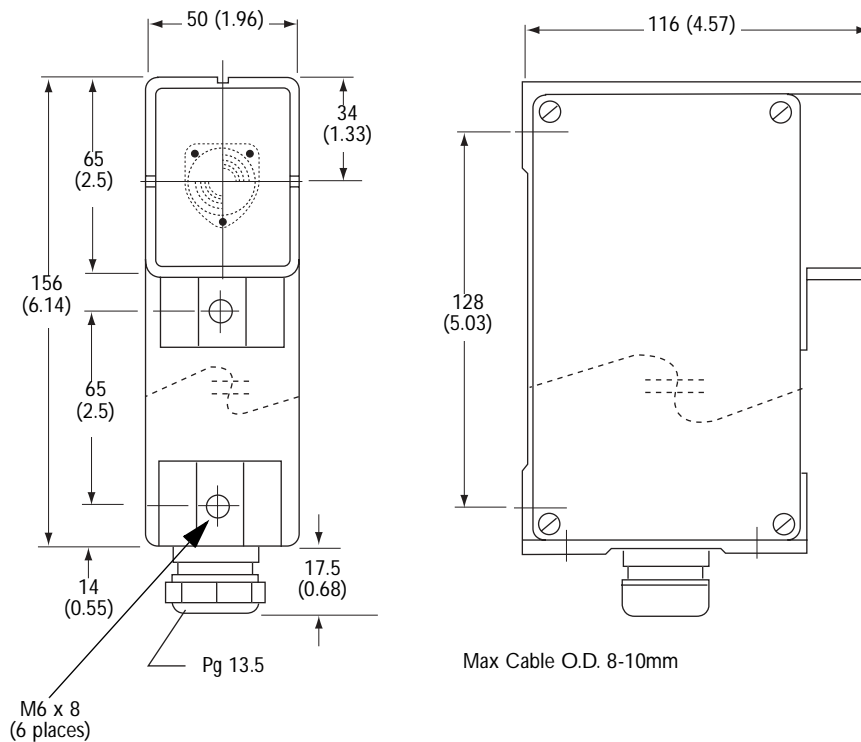
### Area Access Control

#### Accessories

	Description	Catalogue Number
	Laser alignment aid	440L-ALAT
	Adaptor for alignment aid on AAC	440L-ALBRK1
	Mounting bracket for AAC	440L-AMBRK4
	Corner mirror for scanning range 0 to 30m	440L-AMIRR1
	Mounting kit for 440L-AMIRR1	440L-AMKIT
	Mounting bracket for mirror 440L-AMIRRI	440L-AMBRK1
	Glass corner mirror, 45° angle 0 to 30m	440L-AMIRR2
	Long range mirror (15 to 79m)	440L-AMIRR3
	Adaptor, Conduit, Pg13.5 to 1/2in NPT, Steel	440A-A17094

**Approximate Dimensions—mm (inches)**

Approximate Dimensions are not intended to be used for installation purposes.



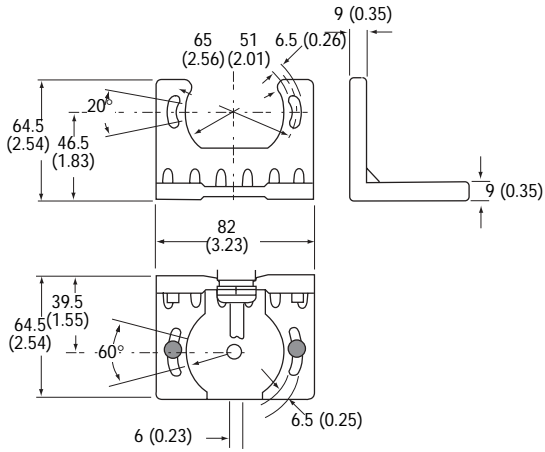
Presence Sensing Safety Devices

**Safety Light Curtains**

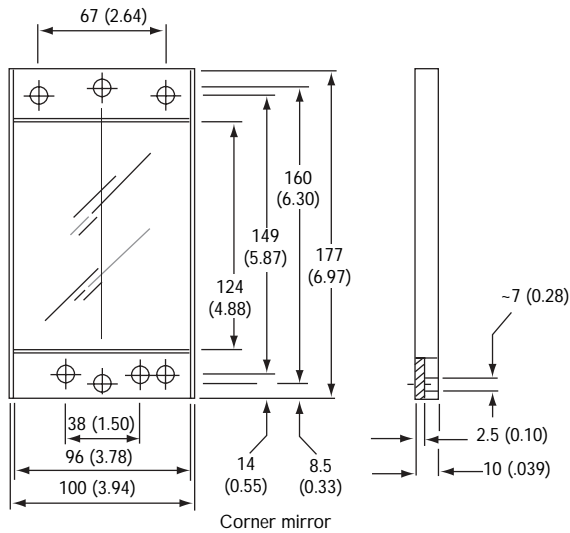
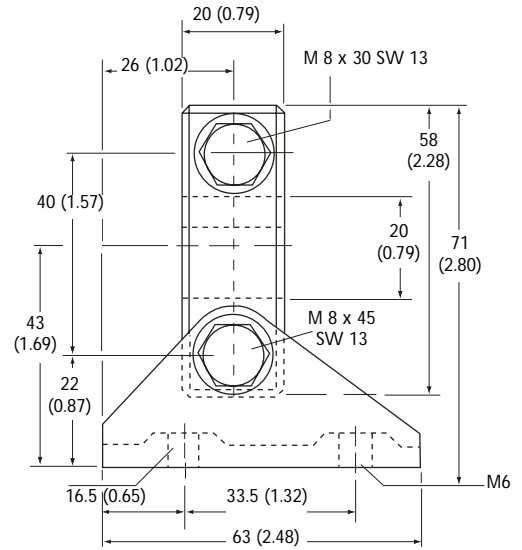
**Area Access Control**

**Approximate Dimensions—mm (inches) (continued)**

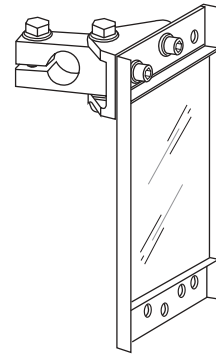
Approximate Dimensions are not intended to be used for installation purposes.



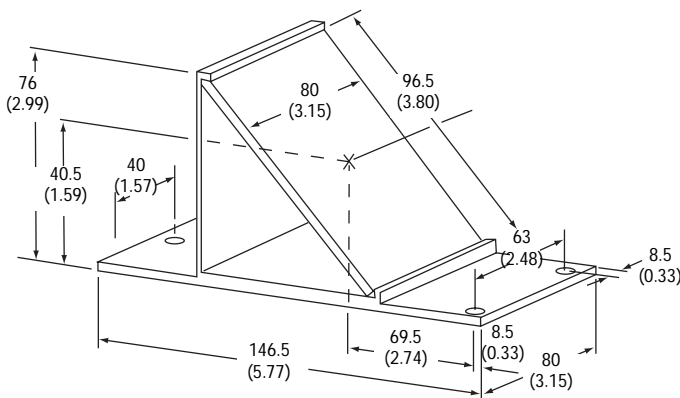
Mounting bracket 440L-AMBRK4



Catalogue number 440L-AMIRR1



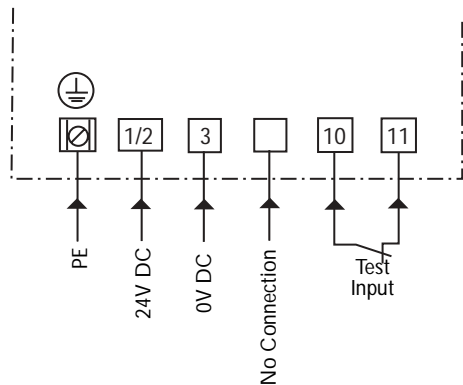
Shown with bracket (440L-AMBRK4)  
Mounted to mirror (440L-AMIRR1)



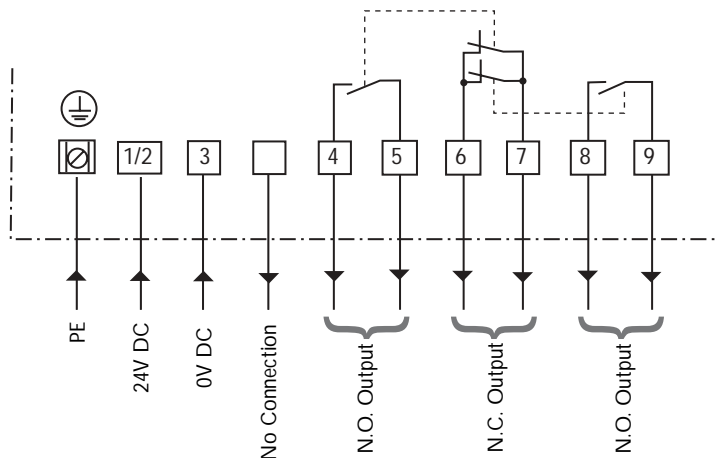
Catalogue number 440L-AMIRR2

Typical Wiring Diagrams

Transmitter

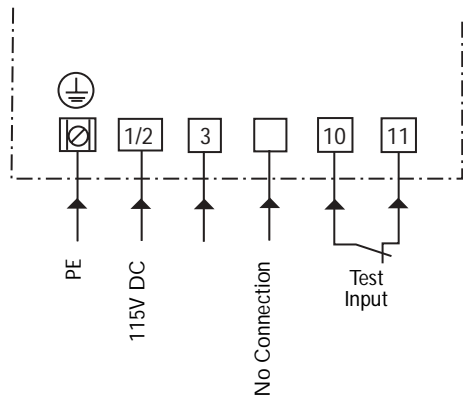


Receiver

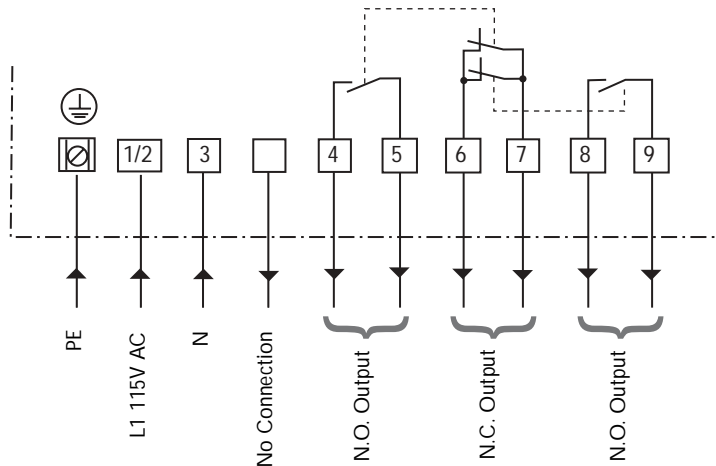


24V DC supply with terminal chamber

Transmitter



Receiver



AC power supply with terminal chamber