

# AIR 30

ACTIVE INFRARED PRESENCE SENSOR

AIR 30-V1-2000 9/00

**AIR 30** is an Active Infrared Sensor for detecting the presence of persons in threshold areas or for collision protection on moving doors.

**Scanning Range Adjustments** – The detection range can be manually set with an adjustment screw. (See specification table).

**Mounting Options** – AIR 30 can be mounted stationary in a threshold area (Background Analysis) or ride along on a moving door (Background Suppression). It can be surface mounted with a bracket, weather protection cover or recessed into a header.

**Background Suppression** – The background is recognized but ignored. It is the object which enters the detection field that creates the reflection, causing the sensor to react. Because the background is ignored the sensor can be mounted "ride along" on a moving door. No background is required. The reflectance value of the background has no effect on the sensor. No transmitter failure indication or self testing function is available with background suppression.

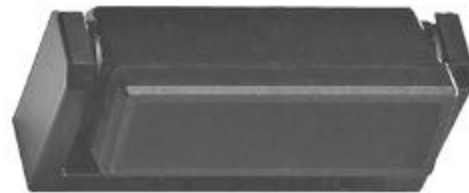
**Background Analysis** – The transmitter continuously communicates with the receiver via the background (floor). When the light beam (reflection) is interrupted by an object, it causes the sensor to react. With background analysis you get the self testing function and transmitter failure indication. The scanning range is from 0" to 98". Reflective objects such as vehicles etc. are detected. This unit cannot be mounted "ride along" because a background is required. Proper function is dependent on reflectance value of background. Black, wet and mirror-like backgrounds may cause false signals.

**User Select-able N/O or N/C Relay or PNP Output** – The relay output signal is easily select-able with a jumper. PNP output is available on request.

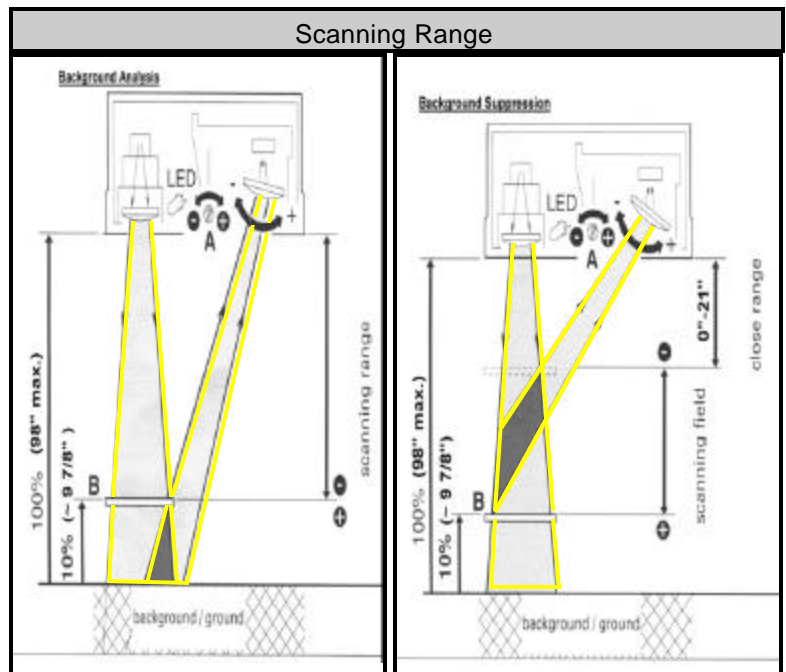
**Frequency Options** – When mounting two or more devices next to each other and the distance between the scanning fields is less than 2", there are two different frequencies available. fA=1800 Hz (standard) or fB=2200 Hz. Use these devices alternately to avoid interference.

**SA Test Input** – (Background Analysis only) Self testing is done automatically by the unit.

- ◆ Superior Presence Detection in the threshold and collision prone areas of Automatic Doors.
- ◆ Background Suppression for "ride along" mounting.
- ◆ Background Analysis for stationary mounting.
- ◆ Adjustable scanning ranges.
- ◆ Multiple units can be used to protect an extended area.
- ◆ Compact design allows for easy recess or external mounting.
- ◆ Relay or PNP output available.



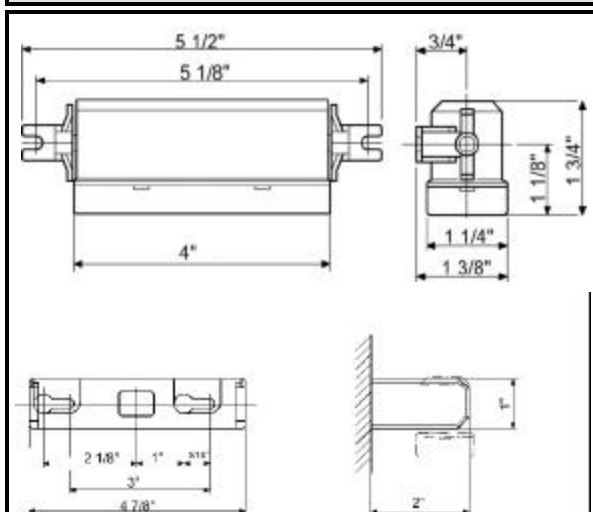
AIR 30 Active Infrared Sensor.



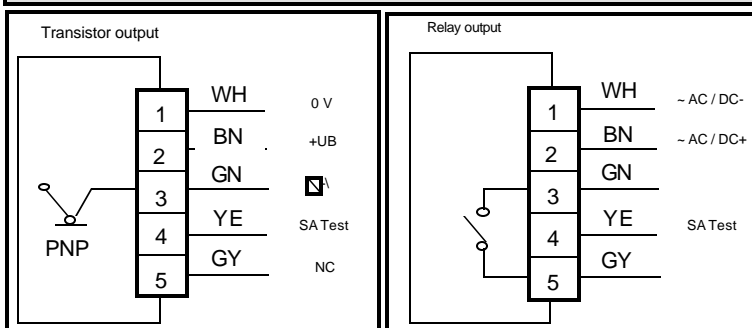
## AIR 30 TECHNICAL DATA

	AIR 30/31	AIR 30/32	
Scanning range	4" to 98"	4" to 98"	With background <b>analysis</b>
Scanning range	21" to 98"	21" to 98"	With background <b>suppression</b>
Scanning range adjustment	39" to 98" mech. adjustment screw	39" to 98" mech. Adjustment screw	Triangulation principle
Scanning field	Approx. 2" x 2"	Approx. 2" x 2"	At scanning range of 80"
Type of light	Active infrared / Pulsed alternating light	Active infrared / Pulsed alternating light	
B/W difference	<15 3/4"	<15 3/4"	At scanning range of 80"
Operating voltage	10-48 VDC / 11-36 VAC	10-30 V DC	
Residual ripple	10 %	10%	With DC operation
Power consumption	Approx. 3 W	Approx. 3 W	
Current consumption	< 100 mA	< 100 mA	
Signal output	Relay – N/O contact – max. switching voltage 42 V AC max. switching current 2 A AC/DC Max. switching capacity 50 W / 60 VA	1 PNP transistor 0.2 A / 30 VDC Protected against polarity reversal	PNP – open collector- short circuit proof
Response time	Approx. 50 ms.	Approx. 50 ms.	
Switching mode	User select-able active N/C / Passive N/O	User select-able active N/C / Passive N/O	Select-able with jumper
Test input	With +UB= 10-48 V DC	With +UB= 10-30 V DC	<b>Only</b> with background <b>analysis</b>
Function indication	Red LED		Lights on activation
Connection type	Cable L=16'	Cable L=16'	Option: terminals / SK
Protection class	IP 52 / NEMA 12	IP 52 / NEMA 12	Option: protective cover
Optics surface	Luran	Luran	
Housing material / color	ABS / Black	ABS / Black	
Operating temperature	-4°F to 140°F	-4°F to 140°F	
Electromagnetic compatibility	CE According to EMC directive	CE According to EMC directive	89/336 EEC
Weight	Approx. 2.7 oz.	Approx. 2.7 oz.	Without cable

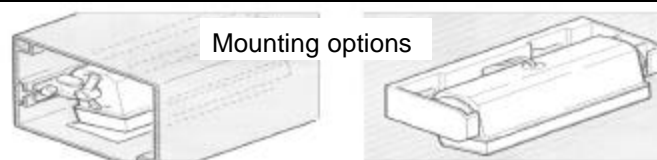
### Dimensions of the AIR 30



### Connection Diagram



### Mounting options



### Ordering Information

Product	Features	Order Code
AIR 30/31 includes swivel bracket, mounting bracket & cable	Relay output, Test input, Background analysis	50033
AIR 30-H/31 includes swivel bracket, mounting bracket & cable	Relay output, Background suppression	50010
AIR 30/32 includes swivel bracket, mounting bracket & cable	PNP output, Test input, Background analysis	
AIR 30-H/32 includes swivel bracket, mounting bracket & cable	PNP output, Background suppression	