

# TOPSCAN

ACTIVE INFRARED PRESENCE SENSOR

TOPSCAN-V2-2001 1/01

**TOPSCAN** is an Active Infrared Sensor for detecting the presence of persons in pinch point areas or for collision protection of moving doors.

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

**Mounting Options** – TopScan can be mounted stationary in a pinch point area (Background Analysis) or ride along on a moving door (Background Suppression). The attractive housing makes it easy to surface mount.

**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. The transmitter failure indication and the self testing function is disabled in this mode.

**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. The self testing function and transmitter failure indication is enabled in this mode. Scanning range is from 0” to 98”. The sensor detects reflective objects such as vehicles etc. It cannot be mounted “ride along” because a background is required. Proper function is dependent on the reflectance value of the background. Black, wet and mirror-like backgrounds may cause false signals.

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

**No Cross-Talk Interference** – When mounting two or more devices next to each other the scanning fields may overlap without interference problems.

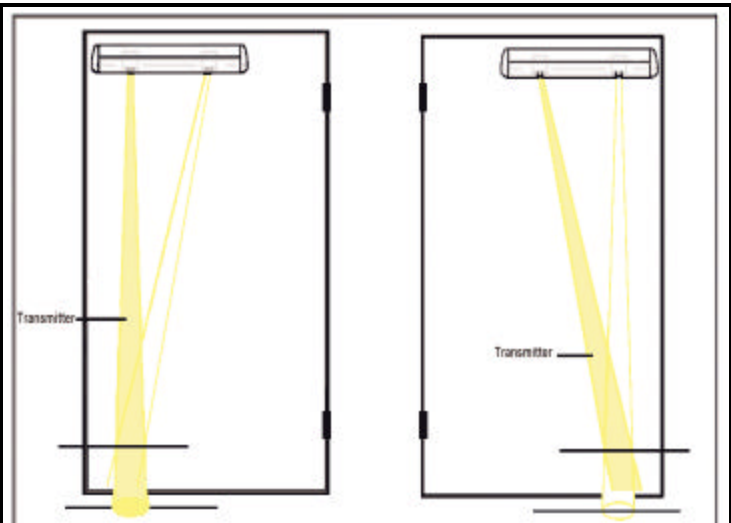
**SA Test Input** – (Background Analysis only) Self testing is done automatically by the unit.

- ◆ Superior Presence Detection for Automatic door activation and collision protection.
- ◆ Background Suppression for “ride along” mounting.
- ◆ Background Analysis for stationary mounting.
- ◆ Adjustable scanning ranges.
- ◆ Multiple units can be used to cover extended areas.
- ◆ The compact housing is attractive and allows for easy mounting.
- ◆ Select-able N/O or N/C output.



TopScan Active Infrared Presence Sensor.

## Scanning Field



Left scan field

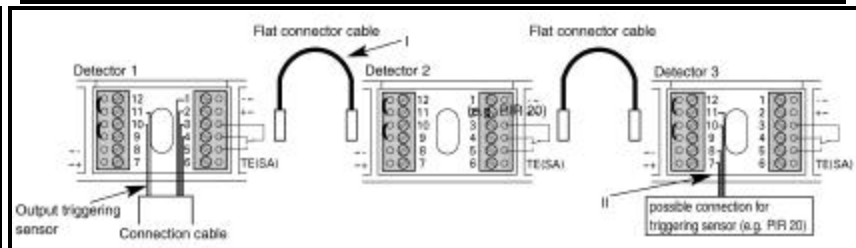
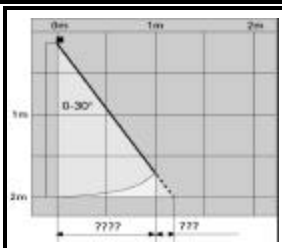
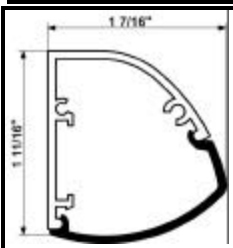
Right scan field

# TOPSCAN TECHNICAL DATA

Scanning range	0° to 98°	With background <b>analysis</b>
Scanning range	1° to 98°	With background <b>suppression</b>
Scanning range adjustment	59° to 98° mech. adjustment screw	Triangulation principle
Scanning field	Approx. 3" x 3"	At scanning range of 78 3/4"
Type of light	Active infrared	Pulsed alternating light 880 nm
B/W difference	20%	At scanning range of 78 3/4"
Operating voltage	18-30 VAC or DC (-0% / +15%)	
Current consumption	< 100 mA	
Signal output	Relay – 1x potential-free switch over contact – max. switching voltage 48 V AC max. switching current 1 A 24VDC Max. switching capacity 24 W / 55 VA	Nominal current (ohmic load) 1A/24 v DC
Response time	Approx. 100 ms.	
Relay Hold time	1) approx. 300 ms 2) approx. 2 s	1) at a light/dark ratio of 1:1. 2) with operating mode background suppression without object in the background, and with operating mode background analysis when the test input is activated.
Switching mode	Active N/C / Passive N/O	Select-able with jumper
Test input	With +UB= 17-30 V DC	<b>Only</b> with background <b>analysis</b>
Function indication	Red LED	Lights on activation
Connection type	Cable terminal	6 x .25mm <sup>2</sup>
Protection class	IP 52 / NEMA 12	Option: protective cover
Distance between optical axis	5 15/16"	Transmitter / Receiver
Housing material / color	Aluminum / ABS - Silver / Black	Lens = PC black
Operating temperature	-4°F to 140°F	
Electromagnetic compatibility	CE According to EMC directive	89/336 EEC
Weight	Approx. 1.7 oz.	Without housing
PCB dimensions	7 13/16" x 1 1/4" x 3/4"	Length / width / height –without housing

## Dimensions of the TopScan Housing

## Connection Diagram

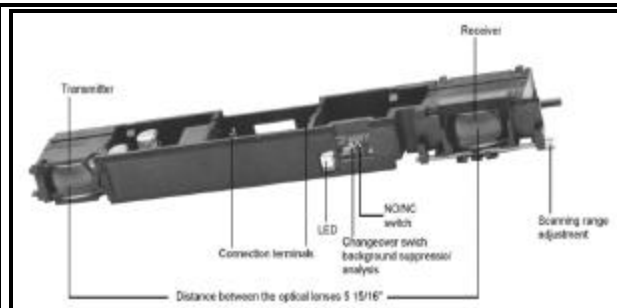


## Ordering Information

### \*Custom lengths and configurations available

Example: Length of housing = 26" with 2 sensors  
 Length of housing = 36" with 2 sensors  
 Length of housing = 45" with 2 or 3 sensors  
 Length of housing = 82" with 2, 3 or 4 sensors

\*Aluminum housing colors available: Black or Silver Anodized



Product / Complete	Features	Order Code
TopScan G2 1/31	L= 13" with 1 detector, housing, lens, end caps & slide brackets	51820
TopScan G2 2/31	L= 29 1/2" with 2 detectors, housing, lens, end caps, slide brackets & 1 connection cable	51821
TopScan G2 3/31	L= 35 1/2" with 3 detectors, housing, lens, end caps, slide brackets & 2 connection cables	51822