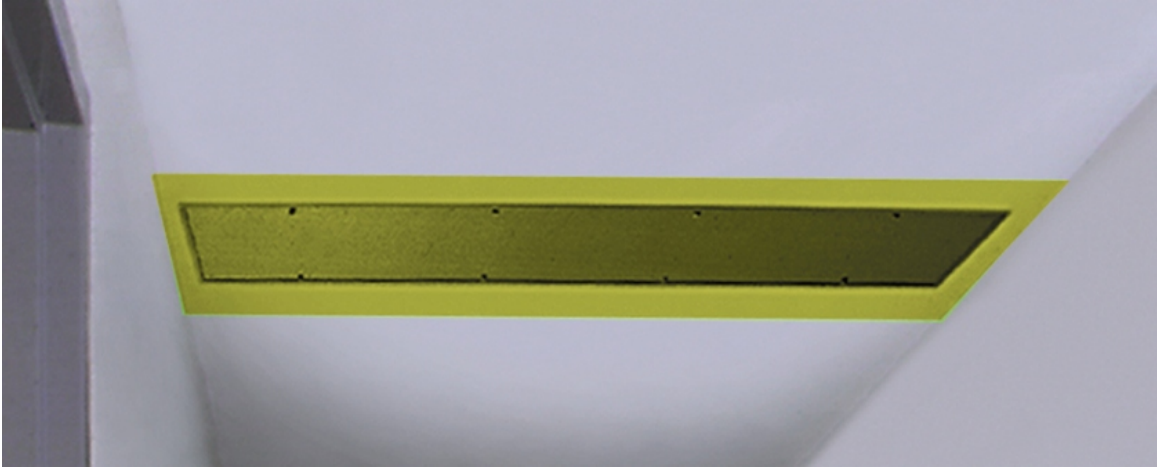


## **ZS OVERHEAD COUNTING SYSTEM**



**A**lvarado's Zone Sensor (ZS) system provides highly accurate overhead counts of people moving through doorways or corridors.

A properly installed and configured ZS overhead counting system from Alvarado can provide your organization with a wealth of important data to augment information gathered at the gate, turnstile or cash register.

The ZS system transmits and receives data using reflective sensing, based on infrared transceiver technology. For typical installations, multiple sensors are mounted within one or more modular fixtures. These groups of sensors are divided into zones. Movements through a zone are captured, processed and output as counts.

The ZS overhead system works well in all ambient lighting conditions.

### **FEATURES:**

- **INPUT DEVICE FOR REAL-TIME COUNTING SYSTEMS**
- **INFRARED ZONE SENSOR TECHNOLOGY COUNTS RAPIDLY MOVING PEOPLE**
- **EXTENSIBLE ARCHITECTURE CAN COVER NARROW DOORWAYS OR CORRIDORS UP TO 18 FEET IN WIDTH**
- **WORKS IN VIRTUALLY ALL AMBIENT LIGHTING CONDITIONS**
- **NO MOVING OR MECHANICAL PARTS, REQUIRES VERY LITTLE MAINTENANCE**

*ZS systems come with standard housings that conform nicely to most facility locations. Custom housings are also available to match various decors. Call Alvarado to discuss available options and configurations.*

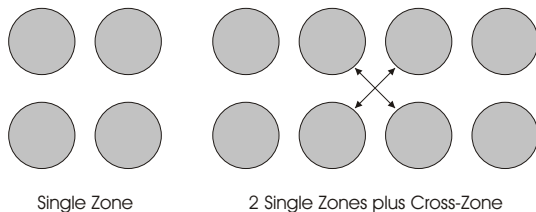
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## DESCRIPTION

Alvarado's ZS (Zone Sensor) system utilizes diffuse-reflective active IR sensors to monitor movement of people through counting zones. The ZS system is designed to operate much faster than standard industrial IR sensors. Each zone is controlled by a separate interface, so that there is no interference between the sensors in a zone, or in larger groups.

In order to count people, the sensor outputs are scanned by a counting board, and the data is processed to produce counts. A minimum system configuration consists of at least one group of sensors (zone), an interface, and counting board.

Many counting applications, such as doorways or corridors greater than 36 inches wide, require more than one zone. The counting in all zones must be coordinated, so that each zone functions independently and also in combination with adjacent zones. This technique is known as cross-zone counting.



This illustration shows a single zone of 4 Zone Sensors, and a cross-zone consisting of 8 Zone Sensors. This technology allows a person passing diagonally through the cross-zone to be correctly counted.

Zone Sensors are ideally suited for overhead counting applications in which people tend to move quickly through the sensor area.

## SPECIFICATIONS

Each Zone Sensor installation consists of a master unit, 4 feet long, plus 2-foot or 4-foot slave units, if required. 2-foot master units are also available. Within each master unit is an array of infrared sensors, plus interface and counting boards.

### Power:

+12 to 16 Vdc @ 0.5 A  
Other input voltages available,  
please contact Alvarado

### Environmental:

-40 to +85 Deg. C

### User Interface for Setup/Testing:

RS-232 or RS-422 standard

### Count Outputs (Entry & Exit):

Optically isolated  
Transistor output  
Can be configured for  
active HIGH or LOW

### Mounting Height:

8 to 10 feet

### Coverage Width (4-foot unit):

6 feet

### Coverage Width w/Add'l Slave Units:

18 feet, maximum

***Specifications subject to change  
without notice.***

**Contact Alvarado for more information regarding  
installation of overhead counting systems.**