IRS 2100

irisys
Red Hot Intelligence

ACCESS CONTROL TAILGATE DETECTOR

The Irisys IRS 2100 is a powerful addition to access control systems, providing detection of someone following a valid cardholder through a controlled door. Suitable for use with most access systems it provides an effective means to increase door security.

"The Tailgate Detector is based on the high-accuracy thermal imaging people counting technology, detecting and tracking people by their body heat."

Key Benefits:

- Increased door security
- Detects unauthorised entry
- Enforces use of card/token
- Improves roll-call accuracy

Features:

- High detection rate of people tailgating
- Low False Alarm Rate
- Unique thermal imaging technology operates in any lighting conditions
- Relay interface to access control system
- Air-Lock option for interlocked doors
- May be used as 'Wrong Way' detector

Description of the IRS 2100 Tailgate Detector

The IRS 2100 works in conjunction with an access control system to detect a person following a cardholder through a controlled door. The Tailgate Detector is based on the Irisys high-accuracy thermal imaging people counting technology, detecting people by their body heat. It operates by receiving a signal from the access system for each valid cardholder accepted at a door and comparing the number of valid cards with the number of people entering. In the event that someone follows a valid cardholder through the door without presenting a valid card/token a tailgate alarm output is generated.

The tailgate alarm may be used to trigger a response appropriate to the application:

- Sound a local buzzer at the door to allow the person tailgating to be challenged by staff
- Record a tailgate alarm on the security system to allow daily/weekly reports to be generated
- Trigger live CCTV images to be displayed for an operator to action a response
- Trigger an integrated response for the security system to record tailgate alarm, time/date, cardholder opening door and digital CCTV images of persons entering

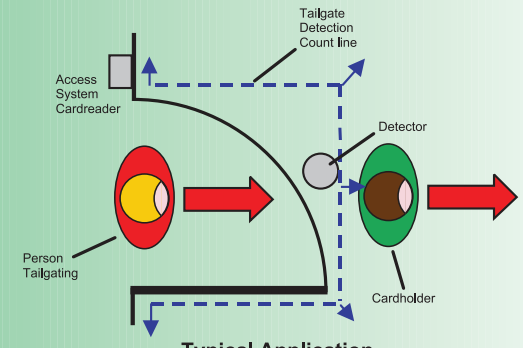
The IRS 2100 operates with most access control systems requiring only a simple relay interface. For the installing engineer the unit is configured using a simple set-up programme. An airlock configuration may be enabled for interlocked door applications.

IRS2100

SPECIFICATION

Tailgate Detection Configuration:

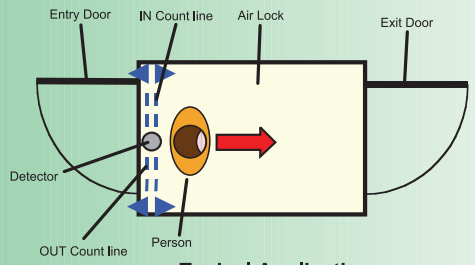
In tailgate mode the detector is ceiling mounted on the secure side of the door. A virtual count line is positioned to detect people entering. A relay input from the access control system provides a pulse for each valid card presented.If more people are counted over the count line than valid cards presented, the tailgate alarm relay output is triggered. People exiting in the opposite direction are ignored.



Typical Application
(refer to installation guide for details of line positioning)

Airlock Detector Configuration:

In airlock mode the detector is ceiling mounted on the secure side of the entry door. The virtual count lines are positioned immediately inside the entry door. The detector provides a relay count output for each of the count lines enabling the system integrator to use them as part of the control logic for the air lock, and enforce rules such as one-person or two-person present.



Typical Application
(refer to installation guide for details of line positioning)

Mounting Height and Count Area:

Recommended: 2.5 - 3.2m
Allowable: 2.2 - 3.5m (outside recommended height range, count accuracy may be reduced)

Mounting Height (m)	Count Area (mxm)
2.5	2.3 x 2.3
3.0	2.8 x 2.8
3.5	3.2 x 3.2

Detection speed range: 0.5ms $^{-1}$ - 3ms $^{-1}$
Temperature sensitivity: < 2.0K

Interface: Tailgate Configuration

Valid Card Input:
Relay pulse: 12VDC for >100ms
Gap of >100ms between successive pulses.
Input impedance: 500k ohms

Tailgate Alarm Output:
Solid state normally closed relay referenced to 0V

Relay rating: 30VDC, 100mA
Alarm time: 10ms, 30ms, 100ms, 200ms, 250ms, 500ms, 1s, 2s, 5s (programmable)

Interface: Air-lock Configuration

Count Output Relay 1 & 2:
Qty 2 solid state normally closed relay referenced to 0V

Relay rating: 30VDC, 100mA
Alarm time: 10ms, 30ms, 100ms, 200ms, 250ms, 500ms, 1s, 2s, 5s (programmable)

Indicators: Qty 2 status LEDs on front of unit

Configuration:

Using Set-up Module IWC2044 & Software ISU0004 via RS232 connection to a PC.

PC Compatibility: Windows 2000 or XP, Serial port

Power Supply Requirements:

Supply voltage: 10-28VDC, including ripple
Ripple: ≤ 2Vpk-pk Typical Supply
Current: 85mA at 12V, 45mA at 24V

Limitation to Use:

The detector is designed for use in applications where two people are walking at a 'natural' distance. Performance may reduce if two people walk 'un-naturally' close together.

Mechanical:

Housing: White ABS / Polycarbonate
Dimensions: 111mm diameter x 50mm deep
Weight: 0.2kg
Mounting: Two fixing holes in base
Electrical Connections: Terminal strip in base

The body is removable from the base by a twist and pull, bayonet style action.

Environment:

The detector is designed for use in indoor environments, free from rapid changes in temperature or humidity.

Operating temperature: 0ºC to + 40ºC (Non-condensing)
Storage temperature: -10ºC to + 50ºC

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CAUTION
LASER RADIATION
DO NOT STARE INTO BEAM
635nm 0.9mW
CLASS 2 LASER PRODUCT