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.

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.

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

**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.

**Mounting Height and Count Area:**
- **Recommended:** 2.5 - 3.2m
- **Allowable:** 2.2 - 3.5m (outside recommended height range, count accuracy may be reduced)

**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

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

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