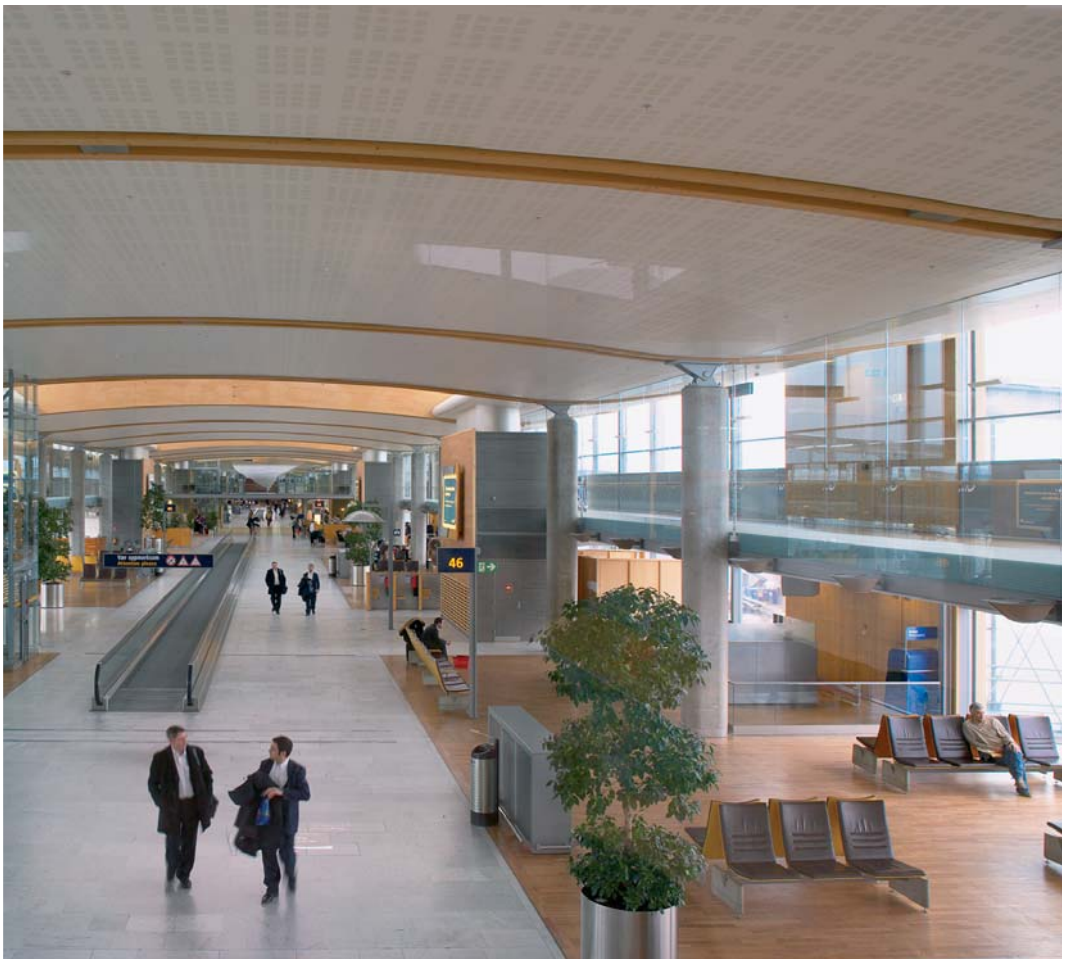
Intrusion

Eyetec – Application examples

Building Technologies

SIEMENS



Eyetec opens new dimensions in motion detection

The award winning Eyetec™ dual motion detector continues to set the benchmark in intrusion detection as the only motion detector with an antiblocking functionality which complies with EN50131-2 Grade 4.

Featuring the revolutionary Optical Detection System (ODS), Eyetec is the first dual motion detector to combine both Passive Infrared (PIR) and optical detection in a single unit. Coupled with sophisticated signal evaluation, this unique combination leads to unrivalled detection capability, highest resistance to tampering and unequalled false alarm immunity.

Unique functionalities include the free definition of monitoring zones, selective movement direction detection, storage of alarm image history and antiblocking protection.

Free definition
of monitoring zones

Pioneer and trend-setter

Versatile intruder detection for the most individual requirements.

Unparalleled detection reliability

Eyetec's performance is based on the unique combination of intelligent passive infrared signal processing and high performance optical detection system. The optical sensor provides more comprehensive data on the room and objects or persons within it than PIR or Microwave technologies (movement direction and speed, size of the object, and more). The PIR sensor is equipped with Siemens' patented Black Triplex Mirror technology, which efficiently filters out disturbing white light sources – a common cause of false alarms with conventional detectors. These two technologies work together to deliver both unprecedented detection performance and false alarm immunity, therefore reducing the cost of intervention.

Free definition of monitoring zones

Eyetec offers the unique functionality to precisely define and limit the areas which need monitoring, thus allowing people to be present although certain areas are being kept off-limit.

This is particularly useful for applications requiring certain areas to be screened out or surveillance to be confined to a specific object or area – a museum display being an obvious example.

Storage of alarm image history

When an alarm occurs, Eyetec stores pictures taken before, during and after the alarm. This functionality is ideal to conduct a swift and simple evaluation of alarm events – a key success factor in the prevention of false alarms and the ongoing reduction of the resultant intervention costs.

Antiblocking

Eyetec's innovative antiblocking function moves beyond conventional antimasking technologies which are only effective at close range (typically less than 10 cm from the detector). With Eyetec, the entire room is being scanned for obstruction and any attempt to block its field of view – whether intentional or not – will be recognised as an alarm condition, even when the system is not armed.

Selective movement direction detection

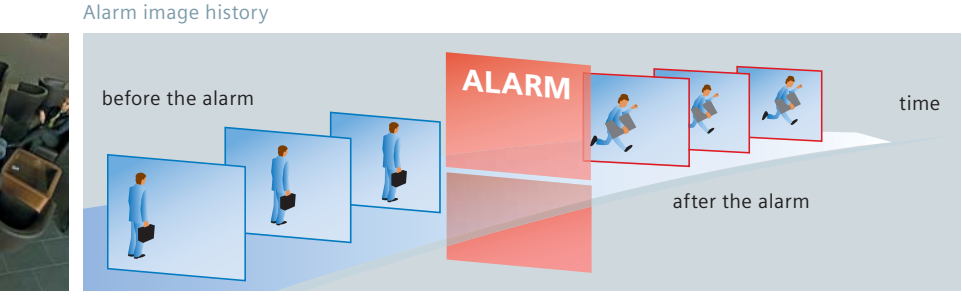
Eyetec can be programmed to allow a permitted direction of movement, only activating an alarm when someone moves in the wrong direction. This is particularly useful to prevent unauthorised entries via e. g. emergency exits.

The Eyetec dual motion detector requires a minimum of 0.5 lux light conditions. Below this level, Eyetec works as a high quality 15 m PIR detector with antimask – alarm are then not restricted to a defined area or direction of movement.

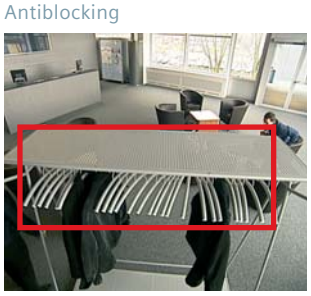
Highlights

- Unparalleled detection reliability
- Free definition of monitoring zones
- Storage of alarm image history
- Antiblocking
- Selective movement direction detection

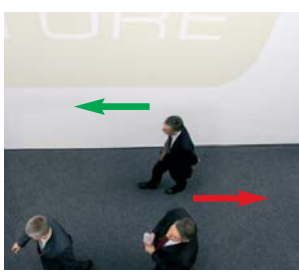
Alarm image history



Antiblocking



Selective movement direction detection



Museums

Valuable security for invaluable assets.

The challenge

Museums present specific challenges when it comes to security, particularly during opening hours. Visitors and staff need to move freely around the displays and exhibits, which vary in shape, size, and position from one exhibition area to another. This results in a complex and very open environment within which conventional motion detectors struggle to achieve precise coverage of sensitive areas.

Highlights

- Precise monitoring of critical areas during opening times
- Unrivalled detection capability through innovative dual technology
- The monitored areas can easily be adapted to accomodate the addition of new displays or the repositioning of existing ones

Eyetec – for a true focus on critical areas

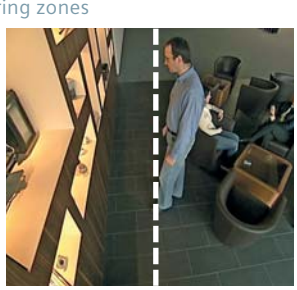
Conventional detection solutions would require multiple detectors to be positioned on and around the walls where paintings are displayed to effectively screen out the area where visitors are allowed to move freely. Eyetec however can achieve coverage whilst allowing for free movement through a simple configuration of the zone to be monitored. By defining which zones need to be monitored (e.g. paintings displayed on a wall) and screened out (e.g. the gangway used by visitors), security is on at all times.

The result – precision security for flexible environments

Eyetec allows museums to strike the right balance between achieving precise coverage of critical areas or art displays and ensuring visitors continue to freely enjoy cultural exhibits.

The resulting security system is simpler – and cheaper – to commission and set up than with conventional detectors, and will deliver optimal detection capability and false alarm immunity.

Free definition of monitoring zones



Casinos

How much are you prepared to lose?

The result – Eyetec puts the odds in your favour

EN50131-2 Grade 4 compliant Eyetec provides a cost-effective way for casinos to create a fun environment for their customers, whilst maintaining the highest security level possible. The precise and effective monitoring of gaming machines means that the precious time and money previously spent individually inspecting machines for tampering can now be redeployed towards other areas. And with Eyetec's unparalleled detection reliability and false alarm immunity, casinos can now benefit from the highest security at an affordable price.

The challenge

In the fast-paced environment of the gaming industry, casinos need to create a fun and personalised environment for their thousands of customers, whilst keeping security at its highest.

Reduced levels of security staff after hours call for electronic security systems, which are both reliable at detecting unauthorised intrusion and at preventing false alarms and unnecessary interventions. In addition, casinos are also keen on reliably detecting any unauthorised physical access to gaming machines after hours, as these could be a tampering attempt aimed at generating false payouts during operation.

All the while, security guards need to be allowed to patrol freely in and around the gaming alleys.

Eyetec – because you can't afford not to...

Eyetec's free definition of monitoring zone functionality enables the gaming machines to be kept "off-limits" whilst security personnel are allowed to patrol the premises freely. As a result, security is on at all times and tampering attempts on gaming machines can be immediately notified.

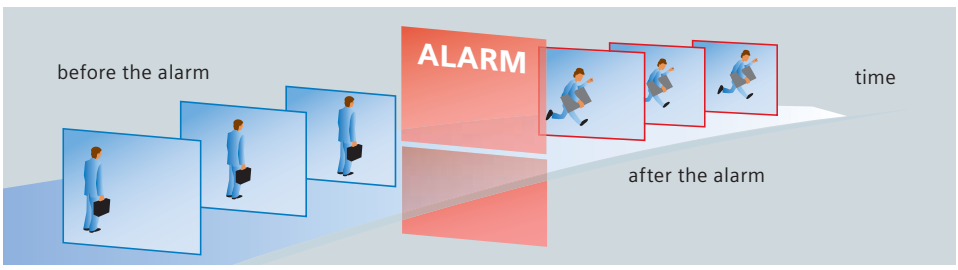
Eyetec's capability to store alarm image history further enhances the security system's ability to limit false alarms: as alarm events can be easily evaluated, the risk of unwanted alarms can be greatly reduced. This also can help identify intruders for evidential purposes.

Highlights

- Effective prevention of thefts and gaming machine tampering
- Cost-effective use of security personnel through reduced false alarms
- The monitored areas can easily be adapted to accomodate the addition of new gaming machines or the repositioning of existing ones

Free definition of monitoring zones

Alarm image history



Retail

Intelligent motion detection for dynamic commercial environments.

The challenge

Retail crimes such as shoplifting, criminal damages and break-ins represent earning losses of millions every year.

Frequent false alarms often result in spiralling intervention costs, but can also affect insurance premiums and even one's ability to get alarm intervention at all.

The reliable detection of incidents and the prevention of false alarms are therefore both key to helping retailers implement cost-effective and foolproof security measures.

Highlights

- Effective loss prevention
- Reliable intrusion detection
- Immediate identification of the blocking of the field of view
- Effective false alarm reduction thanks to alarm images
- Efficient reduction of insurance premiums

Eyetec – for profitable retail protection

Eyetec's innovative combination of PIR and optical detection technologies delivers unrivalled detection reliability and false alarm immunity, ensuring security interventions only take place when a valid incident occurs.

Furthermore, its antiblocking functionality reliably detects any change, which could represent an obstruction of its field of view, for example with a hanging poster or new shelves. As a result, security with Eyetec is never compromised.

Eyetec also stores an alarm image history, which allows for the cause of alarms to be clearly identified. This helps with fine tuning the overall system to avoid further false alarms, and to identify the person responsible for the alarm.

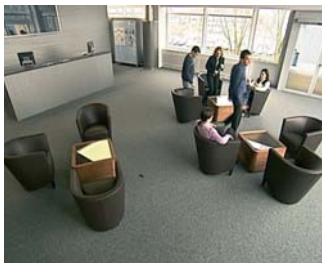
Eyetec's free definition of monitoring zones functionality is also ideal for the retail sector, particularly where certain parts of shops are to be kept off-limits to the public, such as jewellery displays.

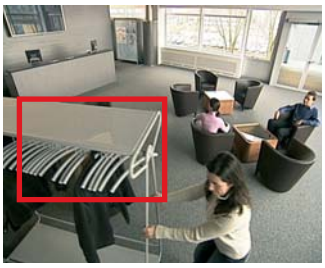
The result – motion detection like no other

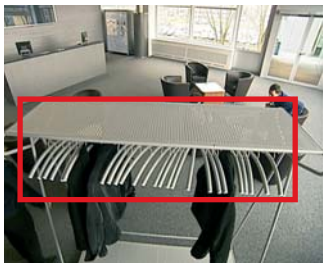
Eyetec's unique features all contribute to delivering a very flexible intruder detection system, which will perform regardless of the location of the shop or the type of products it sells: critical areas are precisely and effectively monitored, risks of false alarms caused by the surrounding environment are minimised, and business activities during and after hours are allowed to continue unaffected.

The resulting security system is simpler – and cheaper – to commission and set up than with conventional detectors, and will deliver optimal detection capability and false alarm immunity.

Antiblocking functionality







Targeted detection for special retail requirements

Shop-in-shop – thinking outside the box

Shops within commercial complexes or airports equipped with conventional detectors commonly fall victim of false alarms after hours, due to the difficulty residing with distinguishing the common areas from the individual shops: as a result, detectors inside the shops may detect the movements of security guards or cleaning personnel in the atrium and trigger a false alarm. Up until now, this problem was countered by either positioning the detectors inside the shops so the front is excluded from the field of detection – leading to potential security blind spots or increased detector and installation costs – or through clumsy physical masking of the detector's field of view.

Eyetec, a simple and cost-effective way to address false alarm issues:

- Effective separation of the main areas and individual shops thanks to selectable monitoring zones
- Further security fine-tuning and false alarm reduction thanks to the alarm images history
- Reduced insurance premiums and intervention costs

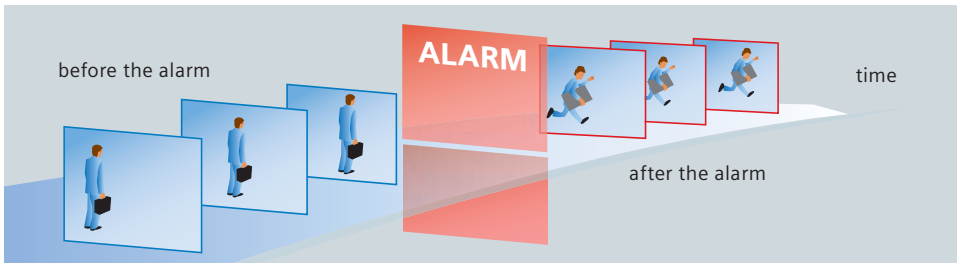
Valuables and antiques

Shops dealing with valuable goods such as jewellery or antiques need to be able to understand the cause of an alarm and fine-tune the system so as to ensure interventions only occur in case of a valid break-in.

Eyetec's benefits:

- Unique capability to store alarm images history enables the cause of an alarm to be analysed and understood
- Effective prevention of high value losses
- Compliance with insurance requirements
- Reduced insurance premiums

Alarm image history



Free definition of monitoring zones

Showrooms

Flexible security for fast changing environments.

The challenge

Like all retail environments, showrooms need to regularly reinvent themselves to attract a constant stream of customers. Consequently, promotional displays and Point of Sale material are updated or rearranged to support new product launches, campaigns or seasonal themes. This very dynamic environment can be challenging when using conventional motion detection devices, which may fail to recognise that their field of view has accidentally been obstructed by a new hanging poster.

Showrooms also typically provide retailers with a prime area within which to showcase their high end, high value products: the reliable detection of intruders, and attempts at blocking the detector's view, are therefore key – and so is false alarm immunity.

In addition, understanding the cause of alarms is essential to maintain the effectiveness of a security system, and helps prevent any further false alarms.

Highlights

- Intrusion detection with optimal detection reliability and flexibility
- Reliable detection of the blocking of the field of view for uncompromised security
- Reduced total installed cost thanks to efficient detection technology
- Effective false alarm reduction thanks to alarm image history

Eyetec – keep your showroom in good check

Eyetec's innovative antiblocking function reliably detects the obstruction of the detector's field of view by a poster or a shelf anywhere in the showroom being monitored, even when the system is not armed.

In contrast, conventional detection technologies only detect obstruction at very close range (typically no more than 10 cm). As a result, multiple detectors would be required as a safety measure against the accidental obstruction of one of the detectors' field of view.

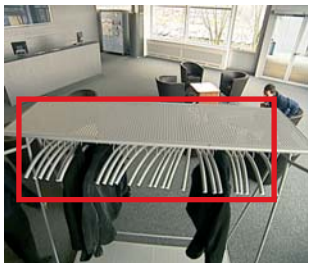
The result

Eyetec's unique antiblocking functionality allows for one unit to be safely used in place of multiple conventional motion detectors, further savings on equipment and installation costs.

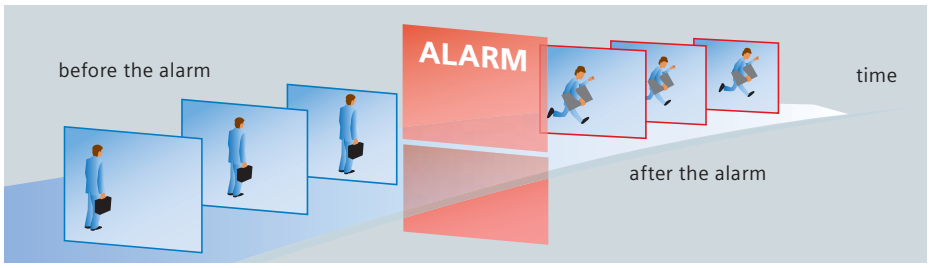
By helping to understand the cause of false alarms effectively and reduce unnecessary interventions, Eyetec presents showrooms with a true cost-saving alternative to traditional intrusion detection systems.

So by using Eyetec motion detectors, showroom managers can be sure that security is never compromised and that the most cost-effective, flexible solution is in place.

Antiblocking functionality



Alarm image history



Public and commercial buildings

Tracking unwanted entries through movement direction analysis.

The challenge

One critical factor to implementing effective after-hours security in public and commercial buildings is the prevention of illegitimate entries through dedicated entry/exit routes and emergency exits.

Conventional motion detectors can not be used to address this issue, as their very nature results in all movements being detected.

Eyetec – flexible security for complex people flow management

Eyetec's unique movement direction detection functionality gives commercial and public building managers the means to reliably differentiate between exits and entries at closing times: exit movements will be ignored, whilst anyone trying to sneak into the building will be detected. In complete darkness, Eyetec provides full motion detection, regardless of the direction of movement.

Eyetec's selectable monitoring zone functionality also provides a flexible intrusion detection system for buildings with multiple occupancy: a company sharing a floor with other organisations can now use Eyetec to reliably detect any movement in the vicinity of their office entrance, whilst ignoring movements anywhere else on the floor.

The result – motion detection which does not get in the way

Eyetec provides a cost-effective and flexible way for public and commercial buildings to manage after-hours security without interfering with business critical systems or the legitimate flow of people.

Highlights

- Reliable and flexible intrusion detection thanks to the free definition of monitoring zones
- Effective control of emergency exits thanks to movement direction detection
- Ultimate versatility of installation
- Unique combination of PIR and optical technologies for optimal detection reliability

Movement direction detection

Storage and warehousing facilities

Don’t let anything come between efficient storage facilities and fool-proof motion detection.

The challenge

Warehouses and storage areas are very dynamic environments, where temporary staff commonly form a good proportion of the work force and with a constantly high level of activity. And with goods coming in and going out all the time (sometimes 24/7), the constant stacking and de-stacking of boxes or pallets can cause a specific problem when using conventional motion detectors: as boxes risk being temporarily piled up outside the rack areas waiting to be taken away or shelved, this can lead to the field of view of conventional detectors to be accidentally obstructed, effectively taking the detectors out of action.

Furthermore, air draughts, heating and ventilation systems creating temperature differentials pose a big challenge for conventional motion detection systems.

Highlights

- Intrusion detection with optimal detection reliability and flexibility
- Reliable detection of the blocking of the field of view
- Reduced total installed cost
- Effective false alarm reduction for improved operational continuity

Eyetec – obstruction prevention without compromise in harsh environments

Eyetec’s innovative antiblocking functionality reliably detects the obstruction of the detector’s field of view anywhere in the room being monitored, even when the unit is not armed. An alarm will be triggered in real-time if the detector’s field of view is obstructed.

Conventional detection technologies only detect obstruction at close range (approximately 10 cm) and therefore require multiple detectors to monitor the same area in order for accidental obstructions or tampering to be detected.

This means that one Eyetec unit can be used in place of multiple conventional detectors, thus vastly improving the intruder detection capability and cost/performance ratio of the overall system.

The innovative combination of PIR (Passive Infrared) technology and ODS (Optical Detection System) is also extremely stable, reducing the risk of unwanted alarms in harsh environments such as warehouses.

The result – smooth operation and security all round

By using Eyetec motion detectors, warehouse or store managers can be sure that daily operations continue to run smoothly with unimpaired movement of staff, transport equipment and goods in and out of the warehouse, whilst security remains uncompromised and overall costs are minimised.

Antiblocking and detection reliability

A blocked field of view causes Eyetec to alarm

Eyetec at a glance

	Eyetec IRO840T
	
Range	15 m
Detection technologies	Passive Infrared (PIR) and Optical Detection System (ODS)
Detection of covering attempts	Real-time antiblocking and antimasking
European security standard	EN50131-2 Grade 4
VdS approval	Class C, no. G106031/32
Monitoring zones	Free definition
Detects movement direction	Yes
Storage of alarm images	Yes (15 images)

Note: always refer to the technical specification to ensure the detector's suitability to the application and installation conditions.

Welcome to the world of innovative thinking

Innovation
Siemens invests a great deal in both manpower and research and development. This results in a steady stream of new insights, technologies and inventions that enable us to improve the reliability of our products and systems, ensuring the securest products and making our systems even more simple and convenient to operate.

Advances in digital technologies are creating a whole new world of possibilities. Siemens is at the leading edge of progress in this field and continues to redefine both current and future technologies.

Reliability
With a history of over a hundred years, if you need an established, reliable partner you are in the very best of hands with Siemens. System expansions and upgrades can be continuously made over a period of years, which ensures your investment for the future.

Security
Siemens products and systems provide you with security. Today, tomorrow and for decades to come. That's why countless customers around the world place their trust in Siemens.

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The information in this document contains general descriptions of technical options available, which do not always have to be present in individual cases. The required features should therefore be specified in each individual case at the time of closing the contract.

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