



# Intrusion

Intrunet E-Line motion detectors – simply the fastest installation time



Answers for infrastructure.

**SIEMENS**



## E-Line motion detectors – a new price/performance benchmark

Ideal for a wide range of standard applications and environments, the range of Intrunet™ E-Line detectors was designed with the installer in mind.

All detectors offer the same popular features found in other Intrunet detectors, such as the “snap-in” enclosure, but they also deliver new levels of installation flexibility and speed thanks to innovative design features. The End of Line (EoL) concept, unique on the market, makes detector wiring quicker, simpler and error free.

Add to this independent PIR and Microwave sensitivity adjustment, pet immunity with creep zone protection, and a detection range adjustment capability which delivers the widest spectrum on the market – and installers can now address the varied requirements they face with each new installation with one compact detector family, and reduce their stock levels and costs in the process.

Quality, performance, flexibility and speed – E-Line detectors truly set a new price/performance benchmark in motion detection.

# E-Line detectors – all round performance and versatility

## ■ Best in class price/performance

The Intrunet E-Line detector range was especially designed to deliver optimal versatility and cost/performance for low to medium risk applications, in quiet to harsh environments. The range includes single and dual technology detectors, combining cost-effective detection technologies with smart functionality and unmatched installation flexibility. All models are available with or without an antimask functionality, and have built-in adjustable sensitivity and pet immunity.

## ■ The fastest installation time

One of the key features in E-Line detectors is the unique End of Line (EoL)\* concept, which reduces the preparation time, eliminates time-consuming manual resistor wiring, reduces the risk of wiring errors and facilitates installation troubleshooting. E-Line detectors also feature a removable terminal block and the well-known “snap-in” cover concept developed by Siemens. All these clever features contribute to reducing installation time by over 50%, making E-Line detectors the fastest detectors to install on the market.

## ■ New levels of installation flexibility

The E-Line detectors provide high positioning flexibility: at the limit of the detection zones, they offer the best detection reliability on the market. They also enable the field of view to be easily converted from volumetric to curtain. In addition, with a uniquely adjustable detection range, the capability to have 12 kg pet immunity with creep zone protection as well as independ-

ent PIR and Microwave sensitivity and range settings, the same detector can be used for different room sizes and environments. The installation can be truly tailored to the application and risk levels.

## ■ Detection reliability without compromise

The “snap-in” cover helps prevent false alarms by reducing the risk of contamination and damage to sensitive optics and electronics. The detectors are available as K- or X-Band models to cover all environmental restrictions, and offer pet immunity up to 12 kg which can be switched back and forth to 30 kg. False alarms are further reduced thanks to white light compensation up to 10,000 lux and sealed detector chamber and sensors, which protect all detectors against draughts and insects.

## ■ Reduced stock levels and costs

The combination of a smart design and innovative installation and customisation features reduce the number of detectors needing to be stocked to address wide ranging installation or upgrades requirements. Further more, as individual resistors are no longer required, stock complexity and costs are dramatically reduced.

## ■ Quality at all levels

The E-Line detectors constitute the first complete detector family certified to EN 50131-2-2:2008 and EN 50131-2-4:2008, meeting 100% of all required tests – an achievement supported by independent test reports.

## ■ One partner – one system

Along with the Intrunet E-Line detectors, Siemens offers a comprehensive range of control panels, operational devices and peripherals to fit all applications and requirements and giving installers and end-users the price/performance benefits of an “all-Siemens” system. The detectors are also compatible with the most commonly available control panels on the market.

## Highlights

- Optimal price/performance for a wide range of applications
- The shortest installation time on the market thanks to unique design features
- Highest installation flexibility thanks to unique sensitivity adjustment capability and pet immunity with look down zone combination
- Family design approach and innovative functionality reduce inventory complexity and costs
- Superior detection quality and reliability
- The first detector family independently certified to meet the latest EN 50131 standards

\* Patent pending

E-Line detectors – a compact family for all applications and environments





## Feature rich E-Line family for the highest installation flexibility

### ■ Flexible sensitivity settings

Each E-Line detector enables the PIR and Microwave sensitivity settings to be adjusted from quiet to harsh. These adjustments are quickly and easily done via switches or jumpers, and ensure the best detection regardless of the environment or application constraints.

### ■ Widest adjustable detection range

The detectors feature a preset 12 m detection range, which can be adjusted from 6 to 18 meters – a uniquely wide spectrum on the market. Combined with the capability to set the PIR and Microwave ranges independently via potentiometers, E-Line detectors again provide installers with a great versatility of installations as each detector can truly cater for rooms of any size.

### ■ Microwave frequency for challenging applications

E-Line detectors are available with a 10 GHz (X-Band) or 24 GHz Microwave frequency (K-Band). This choice of frequency enables installers to cater for applications where rooms with thinner walls pose the risk of false alarms being created by people movements outside of

the supervised room. The 24 GHz models are also ideal for applications where multiple detectors need to be installed close to each other, as its radio waves have much more directive efficiency than the conventional 10 GHz technology, thereby eliminating the risk interference between detectors.

### ■ Full pet immunity flexibility

E-Line detectors have built-in pet immunity and offer the capability to switch between 12 kg to 30 kg, without the use of any tool or permanent mechanisms (such as the traditional “stickers”) – this means that switching can be reversed at any time and as many times as required.

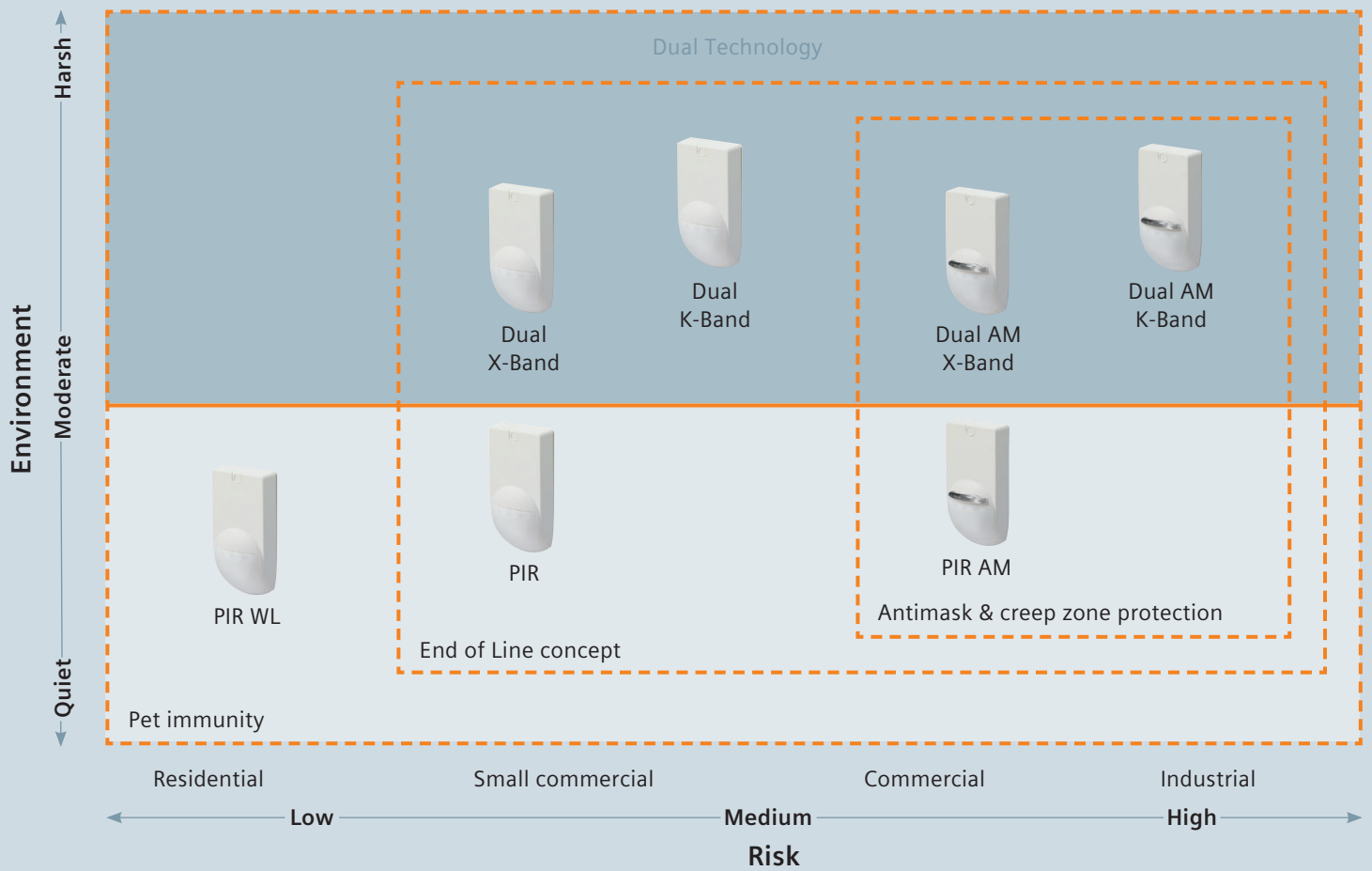
### ■ Combined pet immunity and look down zone

Traditional detectors very often cannot handle pet immunity and creep zone protection at the same time, on the same detector. This can result in the need to compromise or install more detectors. E-Line Grade 3 detectors with antimask enable 12 kg pet immunity to be combined with look down zone without any loss of creep zone protection – another unique capability on the market.

## Highlights

- Flexible sensitivity settings for quiet to harsh environments
- Unique independent PIR and Microwave detection range settings
- Widest detection range adjustment capability on the market
- Built-in pet immunity flexibility
- Easy and risk-free customisation of field of view and white light tolerance
- Potential to combine pet immunity with look down zone without any detection capability reduction





■ **Easy and risk-free customisation**

Contrary to most traditional detectors, changing the field of view of E-Line detectors from curtain to volumetric or adapting the white light filter to the optics do not require the PCB to be taken out. This design feature eliminates unnecessary manipulation of sensitive electronics, and therefore reduces the risk of damage or contamination.

■ **A compact family for all applications**

The installation flexibility offered by E-Line detectors is second to none. As a result, E-Line detectors can be used in a wide range of environments and applications, from residential to small and large commercial, and even industrial. This versatility is also supported by the housing design: it provides a modern and common look across the range that can fit any

environment and will keep installations aesthetically pleasing, no matter where detectors are positioned. By providing optimal price/performance and true installation versatility, this unique detector family reduces the overall cost of ownership for the end-user and delivers future-proof security and peace of mind at all times.

E-Line detectors – the highest versatility in all applications





Reduce installation time by over 50% with:

- Plug-in EoL boards for 2-wire installations and with pre-set resistor values selectable via switches
- Clever “clip-on/-off” terminal block simplifies the wiring and holds all wires tightly in place
- Unique two-piece “snap-in” enclosure:
  - no contamination of optics or electronics during installation
  - easy upgrade of detectors

Everything in the E-Line detectors was designed to facilitate and shorten installation by over 50% – and deliver the best price/performance on the market.

## E-Line detectors set new standards in installation time

### ■ Quickest installation all round

E-Line detectors offer a wealth of innovative installation features including the unique EoL concept, a removable “clip-on and -off” terminal block, and of course the popular “snap-in cover” already available in the existing range of Intrunet motion detectors. Because E-Line detectors were designed with installers in mind, they truly simplify and speed up all stages of the installation, from preparation to wiring, set up and walk test – and even maintenance and upgrades.

### ■ Reduced preparation time

With traditional detectors, many parts, resistors and special tools are usually required. The smartly designed-in installation concepts of E-Line detectors reduce the number of parts installers have to deal with, particularly thanks to the EoL concept which eliminates the need for resistors or special tools.

### ■ Straightforward wiring

With traditional detectors, wiring can be impractical and time consuming due to very tight space inside the detector.

E-Line detectors on the contrary offer a removable terminal block, which makes wire termination more practical. It holds all wires tightly in place, thereby also reducing the risk of wires being accidentally pulled out during and after installation. Combined with the EoL concept, this makes wiring simpler and quicker, and reduces the risks of errors.

### ■ Quick and flexible setup

Setting up E-Line detectors is quicker and more flexible than with traditional detectors thanks to the flexible sensitivity settings, widely adjustable PIR and Microwave detection ranges, easy functionality customisation, flexible creep zone and pet immunity protection and a true family approach to the design of the entire E-Line detector range.

### ■ Walk test without limitations

E-Line detectors provide full walk test activation flexibility, either through the test output from the control panel, or via the detector’s Dip switches. E-Line detectors are also fitted with high intensity LEDs to ensure maximum visibility during the

walk test, and therefore enable a more comprehensive testing. This means that walk tests can be performed in brightly lit rooms as well as at both limits of the detection range, that is to say very close and very far from the detector.

### ■ Contamination-free installation

All E-line detectors also feature the well known Siemens “snap-in” enclosure, consisting of a base and a clip-on cover. To reduce the risk of contamination or damage during wall mounting, the cover holds all sensitive electronics and optics, and is only clipped on once the installation is complete and the environment is clean from dust.

### ■ Easy maintenance and upgrades





The “snap-in” cover complements the family-style enclosure design to allow detectors to be easily replaced or upgraded, e.g. from single to dual technology; Grade 2 to Grade 3 and even from a wired to a wireless version. In addition, detectors can be upgraded from 10 GHz to 24 GHz Microwave frequency in the same manner.


# E-Line detectors – reference table

	ADM-Q12	ADM-I12W1	ADM-Q12T	ADM-QX.12	ADM-QKA12	ADM-QX.12T	ADM-QKA12T
<b>E-Line detectors</b>							
Volume range	6–18 m	6–18 m	6–18 m	6–18 m	6–18 m	6–18 m	6–18 m
Curtain range	20 m	20 m		20 m	20 m		
Available grades	Grade 2	Grade 2	Grade 3	Grade 2	Grade 2	Grade 3	Grade 3
Detection technology <sup>1)</sup>	PIR	PIR wireless	PIR	PIR/MW (X-Band)	PIR/MW (K-Band)	PIR/MW (X-Band)	PIR/MW (K-Band)
Pet immunity	12 kg (30 kg)	12 kg (30 kg)	12 kg (30 kg)	12 kg (30 kg)	12 kg (30 kg)	12 kg (30 kg)	12 kg (30 kg)

<sup>1)</sup> PIR: Passive Infrared; MW: Microwave

## Accessories

AO-C25	AO-WL10K	AZ-MBG2	AZ-MBG3
			
<b>Curtain lens</b>	<b>White light filter</b>	<b>Wall/ceiling mount bracket</b>	<b>Wall/ceiling mount bracket</b>
<p>This curtain lens with overlapping zones enables the complete coverage of a defined area (up to 25 m)</p>	<p>The filter ensures optimal detector functionality up to 10,000 lux</p>	<p>The wall and ceiling brackets provide versatile detector installation options. Once installed, accurate positioning is achieved by swivelling the detector into place.</p>	<p>The wall and ceiling brackets provide versatile detector installation options. Once installed, accurate positioning is achieved by swivelling the detector into place. Includes a tamper switch for Grade 3 applications.</p>

AO-P...

<b>End of Line boards</b>
<p>The End of Line boards are a smart and cost-effective way to connect a detector to a control panel. Each board is pre-configured for 2-wire installations and offers selectable resistor values to accommodate the widest range of control panels.</p>



The Intrunet E-Line detectors are part of the comprehensive portfolio of high performance wired and wireless intrusion products available from Siemens.

## Best in class intrusion portfolio from Siemens

### ■ Perimeter and periphery surveillance

Intrunet external motion detectors push the boundaries of PIR technology, allowing industrial grade intrusion detection systems to become a viable option for a wider range of applications. With unique, enhanced performance characteristics, they provide superior detection, lowest nuisance alarm rates, true tamper protection, and trouble-free installation, operation and maintenance. The range of wired and wireless periphery surveillance detectors offer the final touch to any modern security system: from door and window contacts to glass break detectors, no area will be left unmonitored.

### ■ Room surveillance

Siemens' in-depth knowledge of sophisticated motion detection technologies comes into its own with a comprehensive range of wired and wireless single and dual technology motion detectors for EN Grade 2 to Grade 4 applications. Intelligent signal analysis enables reliable detection of intruders and effective discrimination against false alarms. The innovative snap-in cover reduces the risk of contamination during mounting, thereby further reducing the risk of false alarms. The wireless family also includes smoke and flood detectors, a control keypad, a remote control and an outdoor siren.

### ■ Object surveillance

The range of Intrunet seismic detectors are specially designed for the monitoring of safes, vaults and ATMs against theft and vandalism. All models deliver outstanding false alarm immunity, and facilitate speed of intervention and optimal structural damage limitation. The Senstec™ patented sensor technology ensures a reliable and very early detection of thermal and mechanical attacks. With flexible mounting options – inside a wall or surface mount – the detectors are easy to install and set up, and offer adjustable sensitivity to cater for all applications and environments.

### ■ IC60 intrusion system

Specifically designed by Siemens for the home and small business environments, this multi-functional security system combines security, safety and comfort functionalities on one system, making it the right choice for anyone looking for intelligent intruder detection, total safety and ultimate convenience. Its stylish control panel and keypad are at the heart of the system, whether wired or wireless: SMS alerts, water leak detection or even lighting control are just a few of the functionalities IC60 offers.

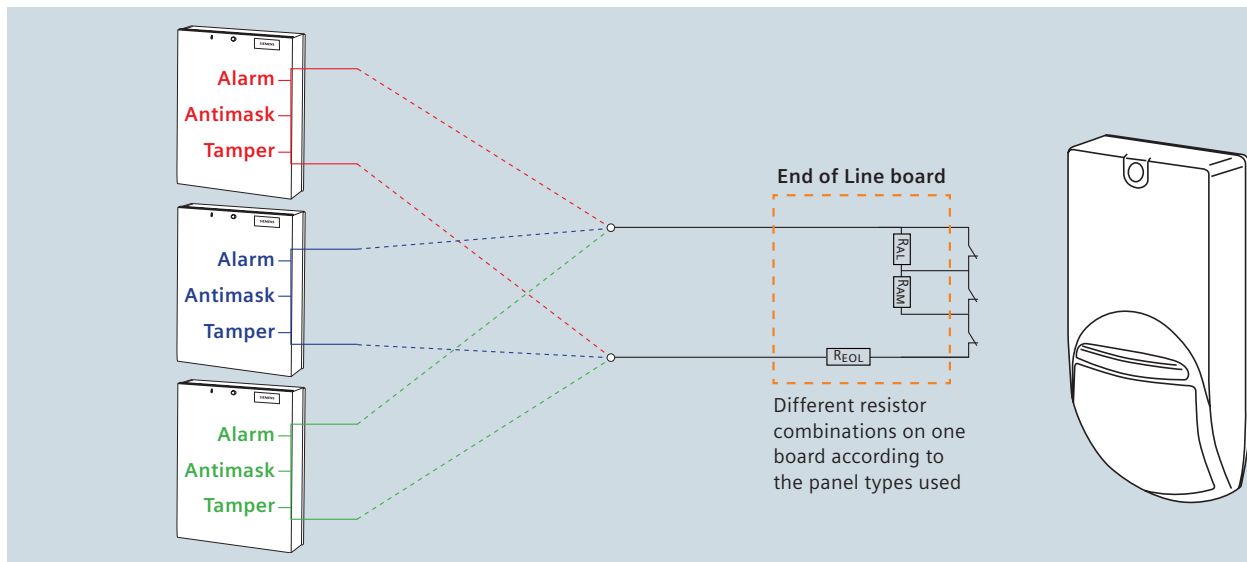
### ■ SI series intrusion systems

Modular and scalable, the Intrunet SI series control systems form the heart of easy-to-operate, adaptable intrusion detection systems. Easy to install, wired or wireless, the family uses a common programming software that can be configured to fit individual needs. Clever alarm verification processes ensure a high false alarm immunity. Versatile communication paths, including IP and GSM/GPRS, ensure high alarm transmission reliability and support powerful remote services (programming, activation, maintenance) – for all round high performance and flexible security.

### ■ SPC series intrusion systems

Scalable up to 512 wired/120 wireless zones, the SPC series facilitates the planning and installation phases thanks to common keypads, modules and expanders, which can be mixed and matched to fit applications of all sizes. Straightforward system commissioning is achieved thanks to a powerful suite of configuration tools and a high speed/length expander bus with loop topology for high fault tolerance. Sophisticated programming, alarm management and control functionality – including door management – as well as full connectivity with tri-paths communication, enable the system to be truly tailored to the most stringent security requirements.





End of Line concept for ultimate installation flexibility and speed

### ■ On-board panel preferences

With E-Line detectors, installers have the unique flexibility to choose whether to use the End of Line boards (EoL) with selectable resistor values for the most commonly available control panels. With conventional detectors, resistors for Alarm, Tamper and Antimask need to be individually wired and their values chosen based on the control panel used. With E-Line detectors, no individual resistor wiring is required: just select the appropriate resistor values via DIP switches on the EoL board, then plug the board directly onto the detector's PCB. That's it!

This smart and unique concept dramatically reduces the complexity of wiring inside the detector. This reduces the risk of cabling errors and makes fault finding much quicker.

### ■ EoL boards for all installations

Various types of EoL boards are available to cater for the most commonly available panels\*. They offer the fastest and simplest way to connect a detector to a control panel, at the same time reducing the number of zones that need to be set up for each detector in the control panel compared to conventional detectors. The EoL boards are pre-configured for 2-wire installations, but thanks to the EoL concept, the control panel is still able to identify the type of alarms according to the resistor values in the detector line. E-Line detectors also support conventional wiring configurations without EoL boards, giving installers true flexibility.

\* Pre-configured EoL boards with resistor values for dedicated Siemens or third-party control panels can also be supplied. Please contact your Siemens representative for more information.

## Highlights

- Smart design concepts speed up all steps of the installation
- Unique EoL concept gives installers freedom to work with their preferred control panels
- Simpler, clearer wiring reduces errors at installation stage
- Clean installation concepts reduce risk of nuisance alarms at later stage
- Easy upgrades and replacement thanks to a common housing design and snap-in cover
- Overall installation time and costs are reduced

Conventional resistor wiring



Simple resistor value selection with an End of Line board



# Answers for infrastructure.

## ■ Megatrends driving the future

The megatrends – demographic change, urbanization, climate change and globalization – are shaping the world today. These have an unprecedented impact on our lives and on vital sectors of our economy.

## ■ Innovative technologies to answer the associated toughest questions

Throughout a 160-year history of proven research and engineering talent, with more than 50,000 active patents, Siemens has continuously provided its customers with innovations in the areas of healthcare, energy, industry and infrastructure – globally and locally.

## ■ Increase productivity and efficiency through complete building life cycle management

Building Technologies offers intelligent integrated solutions for industry, commercial and residential buildings and public infrastructure. Over the entire facility's life cycle, our comprehensive and environmentally conscious portfolio of products, systems, solutions and services in the fields of electrical installation technology, building automation, fire safety and electronic security, ensures the:

- optimum comfort and highest energy efficiency in buildings,
- safety and security for people, processes and assets,
- increased business productivity.



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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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