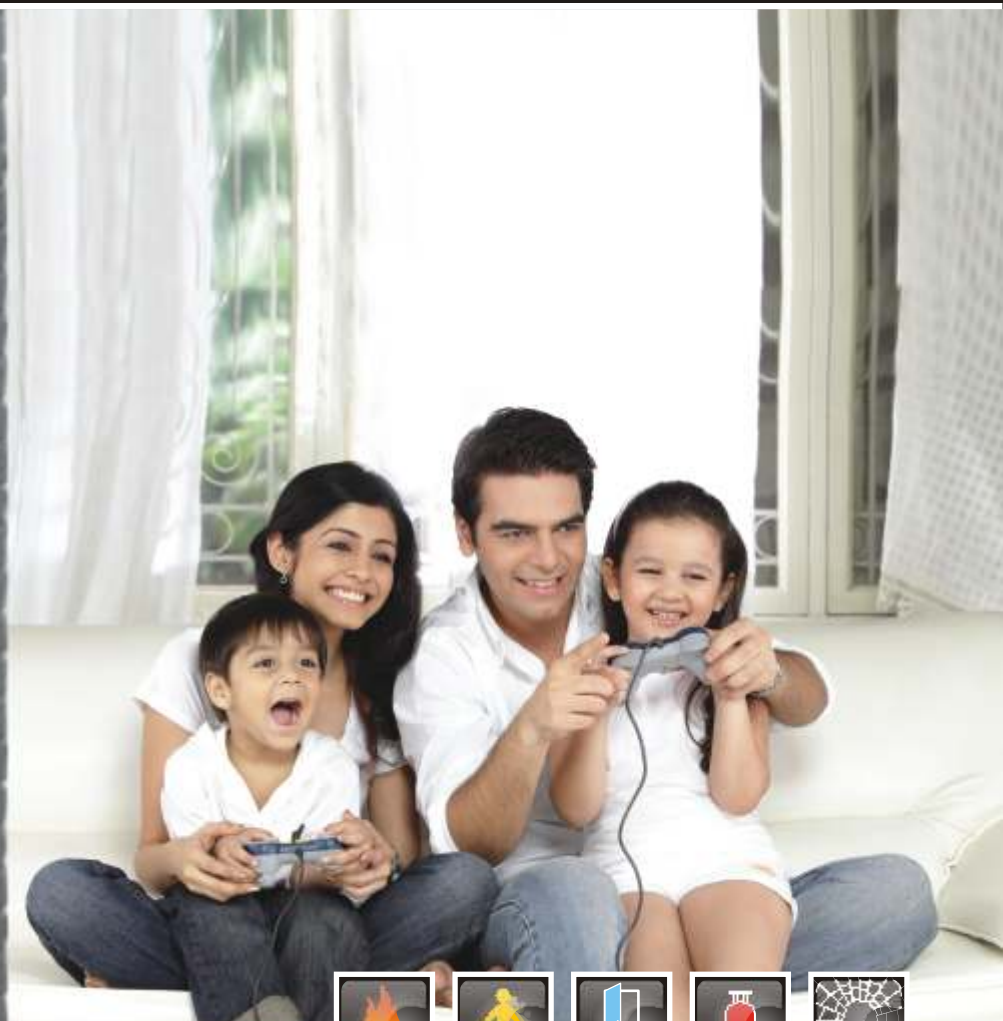**WIPRO**
*Applying Thought*

# isquare

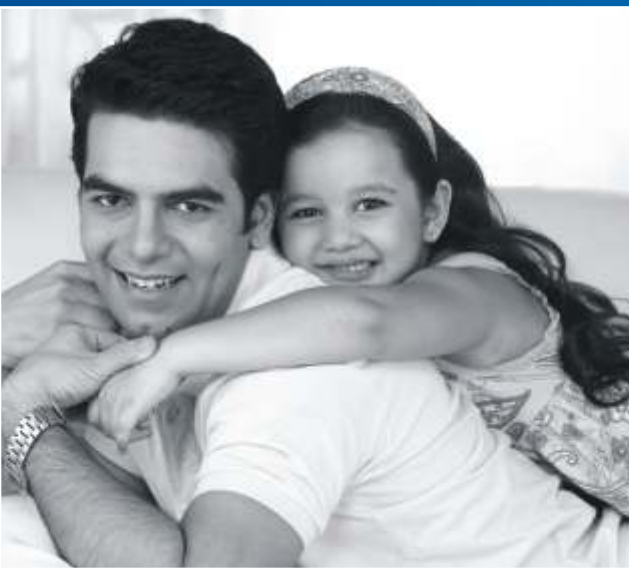## INTELLIGENT INTRUSION AND FIRE ALARM SYSTEM

**WIPRO SECURITY**

I stay out
working for
most of
the day

My wife
is at home
only after 6

My life.. my family…
        our canvas of happiness… Perfect..
We have toiled hard
        to make it what it is today
We will do what it takes
        to ensure it remains this way!!

My sweetheart's
smile is more than
a billion dollars

My dad...
my son's
best buddy

At Wipro Security, we understand.

We understand the countless hours you have spent in creating your world. We understand you have saved every paisa possible to create this beautiful home. We understand the hours of careful selection which goes into every element of your home. We understand your family's security matters the most to you. And we understand your need to protect your home from unwanted visitors, intruders and from accidents or unforeseen calamities.

Welcome to Wipro Security.

We have been researching best security technologies for you. We have blended this research with our understanding of the security requirements of the Indian homes to create i-Square – an integrated wireless home intrusion and fire alarm system.

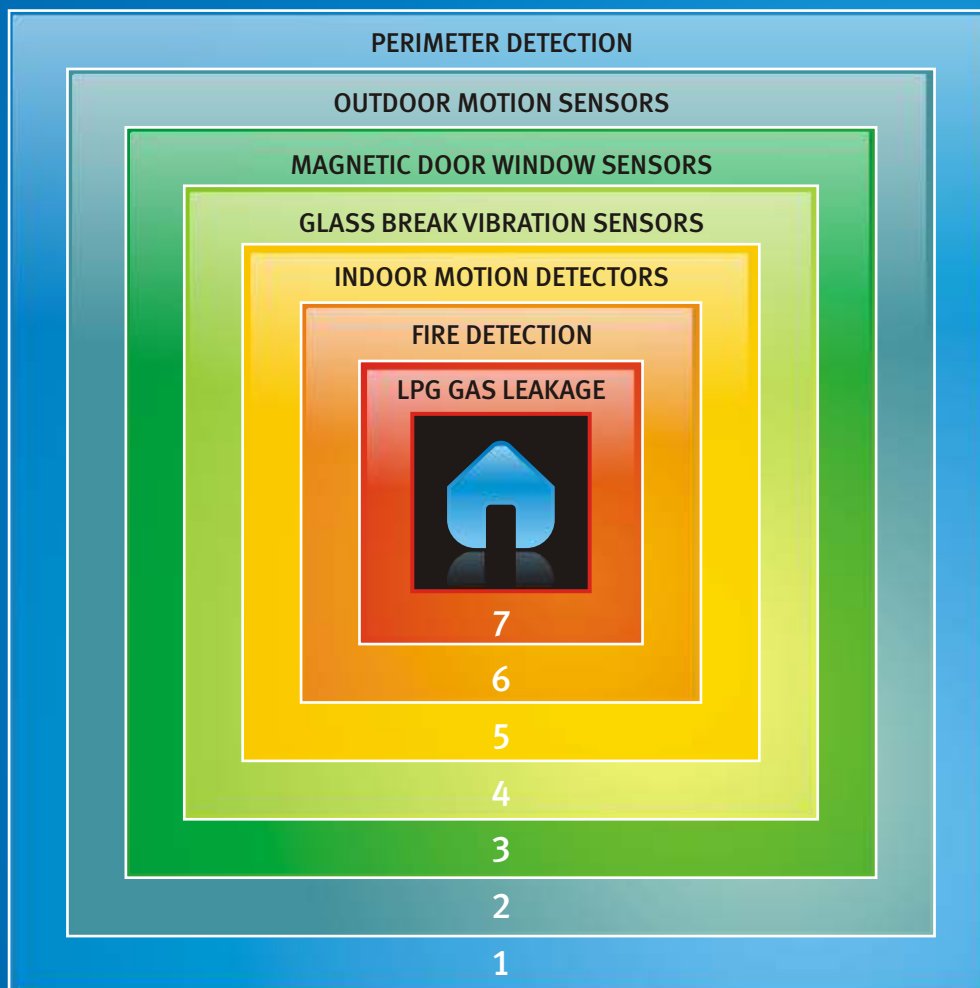With i-Square, you will stay in control of keeping your home safe and secure.

WIPRO SECURITY

My weekend
means life begins
-an outing with
my family

**isquare**

**MAKE YOUR HOME A VIRTUAL FORTRESS WITH OUR DEFEND 7 SECURITY STRATEGY**

# DEFEND 7

## The SEVEN layered Safety and Security Strategy

The i-Square system works on a philosophy of creating several interception layers.
The Defend 7 strategy in i-Square is designed to intercept trouble through 7 Safety Layers - 5 layers
to warn users against 'Security' breaches by Intruders and 2 layers against life 'Safety' threats due
to Fire, Smoke or Gas leakage - making it one of the most intelligent and contemporary defense
strategies to secure your family.

PERIMETER DETECTION

OUTDOOR MOTION SENSORS

MAGNETIC DOOR WINDOW SENSORS

GLASS BREAK VIBRATION SENSORS

INDOOR MOTION DETECTORS

FIRE DETECTION

LPG GAS LEAKAGE

7

6

5

4

3

2

1

**WIPRO SECURITY**

## SQUARE – the timeless defensive strategy

The 'Square Formation' has been one of the most effective defensive strategies since age old times. History has chronicled that the Square Formation was used effectively by the Duke of Wellington to fend off and eventually defeat Napoleon Bonaparte's marauding French Cavalry. It has been used by Romans to fend off enemy arrows and fireballs.

## i-SQUARE – the intelligent modern age partner to secure your family

The Square Formation Strategy is simple and effective. It consists of several layers of defensive infantry which becomes impenetrable for attackers. On one hand, the layers ensure that a back-up is available in case the enemy penetrates the front order in the formation. On the other hand, trying to penetrate several layers wears out the enemy and makes the enemy give up the attack.
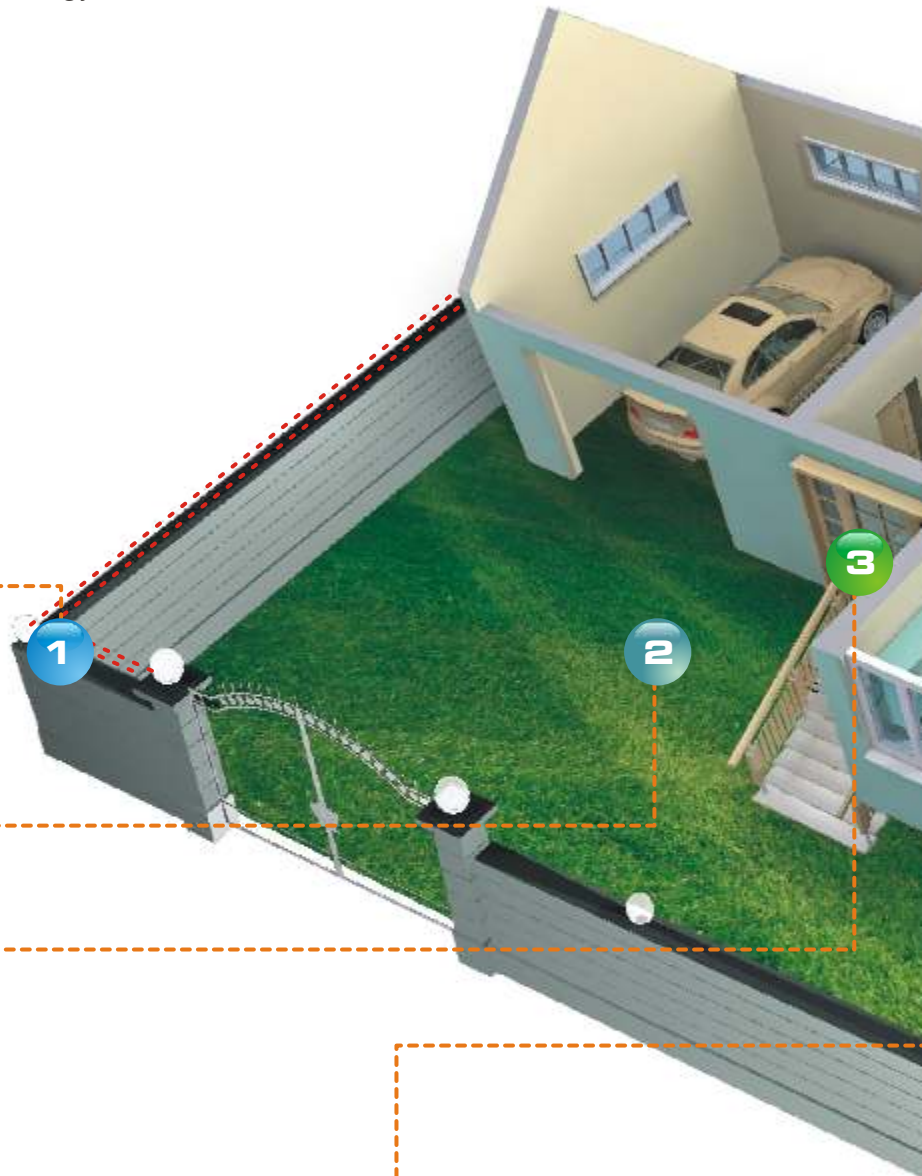
The i-Square System has a similar approach of tiring out trouble before it can cause any harm, as it has to pass through several layers of defense. Equipped with 16 wireless and 4 wired Zones and a vast variety of sensors, the i-Square is one of the most flexible and versatile security panels available to the consumer today.

# THE DEFEND 7 STRATEGY
The SEVEN layered Safety and Security Strategy

**P**

**isquare CONTROL PANEL**

## 1 PERIMETER BREACH DETECTORS

This is the outermost security layer. Based on the Active Infra Red Beam Detector technology, this layer consists of 2 parts – an active IR beam transmitter and a Receiver. Any intruder cutting this beam will immediately set off an alarm.

## 2 OUTDOOR MOTION SENSORS

In case an intruder manages to evade the Beam detectors, then the second defense layer will detect movement in outdoor premises to raise an alarm. The Outdoor motion detectors use the Passive Infra Red (PIR) or the Microwave technology or a combination of the two to make detection more accurate. Pet Immune Detectors, which ignore presence of pets or large rodents and birds are also available and recommended for outdoors.

## 3 MAGNETIC DOOR SENSORS

The third protective layer is detection of opening of outer doors and windows. Based on a simple and reliable magnetic continuity technology, these detectors will raise an alarm in case any of the doors or windows fitted with these sensors are opened whilst the system is "Armed".
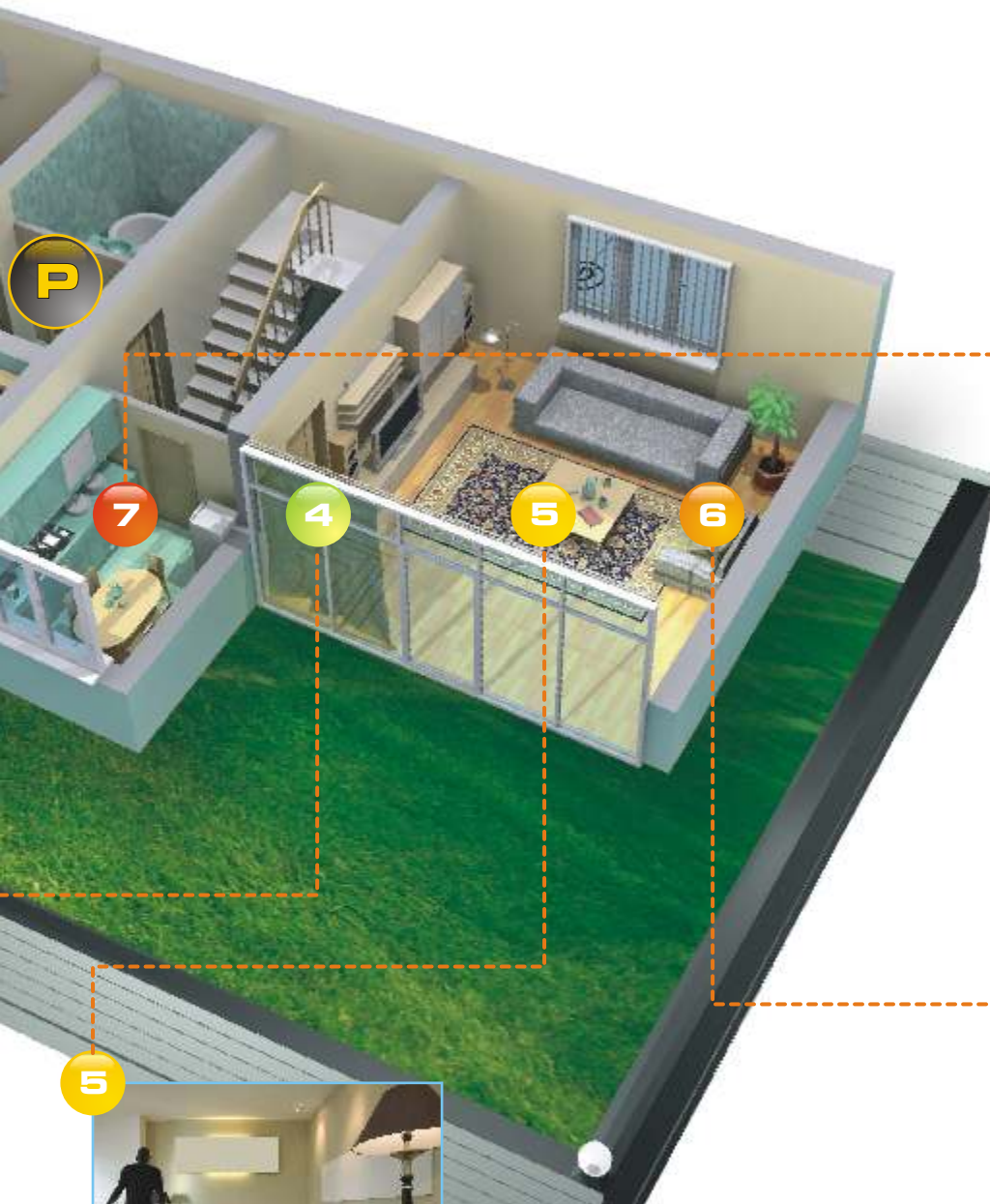
## 4 GLASS BREAK SENSORS

These sensors are designed for warning a breach through glass front doors and windows at home or show windows in shops. Any glass breakage within the sensing zone will trigger an alarm, informing the user that intrusion has happened.

**P**

**7**

**4**

**5**

**6**

**7**

**LPG GAS LEAKAGE**

The last layer detects LPG gas leakage, thus warning and helping prevent LPG leakage related accidents and injuries.

**5**

**INDOOR MOTION DETECTORS**

In the rare event that intruders manage to penetrate the first 4 defensive layers, they are bound to be trapped by the indoor motion detectors and curtain movement sensors.

**6**

**FIRE DETECTION**

While the first 5 defensive layers protect users against unwanted intruders, the last 2 layers provide warning against accidents and are safety layers. Two powerful detectors Heat sensors and Smoke detectors will warn user of fires or potential fires, so that swift action can be taken to prevent further serious damage.

## WS-IC1604 | Intrusion Alarm Control Panel with 16 Wireless and 4 Wired Zones and LCD Display

WS-IC1604 is a new panel of intelligent wireless and wired intrusion alarm system with the feature of convenient installation and easy operation. With 16 wireless zones and 4 wired zones, the panel is ideal for residential and commercial facilities.



The Controller does two simple functions:
1. It keeps in touch with various sensors at all times and
2. In case it receives an alarm signal from any of the detectors, then it processes the information to take any or a multiple of preset actions – starting of Strobe Flash lights for visual alarm, triggering a powerful Siren for sound alarms and / or auto-dialing pre-set user phone numbers to alert users or their friends, relatives and neighbours. Swift action can thus be initiated.

## features

- 16 wireless zones, 4 wired zones.
- Simple menu driven operation and programming through LCD display.
- Can store and dial up to 6 telephone numbers in case of an 'Alarm'
- An inbuilt siren for warning emergencies and scaring away intruders.
- 7 codes-1 user/installer master code, 1 duress code, 5 operator codes.
- Upto 5 remote control Key Fobs for easy Arming, Disarming and 'Panic' function.
- Programmable Entry / Exit Delays for avoiding false alarms.
- Each Sensor can be programmed in different modes to allow 'Disarm', Partial arming with 'Arm - At Home' mode and Total Arming with 'Arm - Away' modes.
- System Malfunction alarms in case of AC power failure, Low Battery/ voltage conditions, and telephone line loss.
- Anti-tamper Alarm for control panel.
- Programmable relay output

Together, the i-Square Controller with its Defend 7 strategy and detection sensors will keep you informed 24/7, putting the safety and security of your home and your loved ones firmly in your hands.

## technical specifications

- Power adapter working voltage: AC100V ~ 240V
- Operating voltage of the control panel: 12VDC
- Static operating current: 130mA
- Bell output current: 400mA
- Dimensions: 250 W x 150 H x 45 D mm

Arm & disarm by
remote controller

Get Alarm signals
on your phone

Panic alarm for medical
or other emergencies

# detectors

## SAFEGUARD YOUR ASSETS

### PERIMETER BREACH DETECTORS

This is the outermost security layer. Based on the Active Infra Red Beam Detector technology, this layer consists of 2 parts – an active IR beam transmitter and a Receiver. Any intruder cutting this beam will immediately set off an alarm.

## WS-IB1221
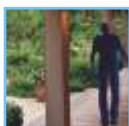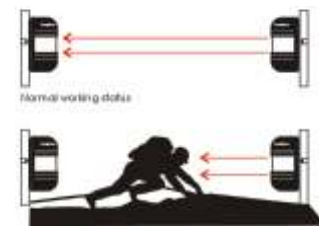### Dual- Beam pulsed infrared photoelectric detector

#### features
- Pulsed infrared dual beam
- 50-700 milliseconds interruption
- Range outdoor 100 meters and indoor 300 meters
- Wall or pole mounted
- Tamper proof

#### technical specifications
- Voltage: DC 12~24V/AC 11-18V
- Consumption: 65 mA maximum
- Operating Temperature: -25° C to +55° C
- Alignment ±5° vertical, ±90° horizontal

### OUTDOOR MOTION SENSORS

In case an intruder manages to evade the Beam detectors, then the second defense layer will detect movement in outdoor premises to raise an alarm. The Outdoor motion detectors use the Passive Infra Red (PIR) or the Microwave technology or a combination of the two to make detection more accurate. Pet Immune Detectors, which ignore presence of pets or large rodents and birds are also available and recommended for outdoors.

## WS-IM1123PI
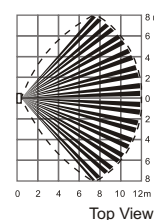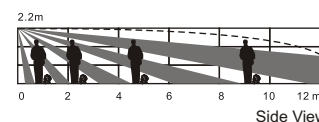### Pet Immune PIR with Microwave Wired Motion Sensor

#### features
- Infrared+Microwave technology
- Anti-white light immunity with special filter lens(10000Lux)
- IP54 protection
- Pet immunity < 20KGS
- Adopts Doppler Effect and power analysis
- Microwave using X-Band-patch antenna
- Microwave detection range adjustable
- Automatic temperature compensation

#### technical specifications
- Operating voltage: 9~16V DC
- Operating Current: ≤30mA
- Operating temperature: -10° C to +50° C
- Optimal Installation height: 2.2m
- Detecting range: 12m x 12m
- Detecting angle: 110°
- Alarm output N.C./N.O. option
- Dimension: 153 mm x 80 mm x 58 mm

## WS-IM1122PI
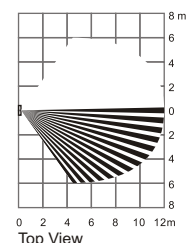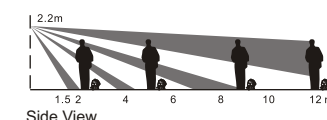### Pet Immune Dual PIR Wired Motion Sensor

#### features
- Dual infrared sensors
- Anti-white light immunity with special filter lens(10000Lux)
- IP54 Protection
- Pet (<20KGS) immunity
- Wide-angle lens and curtain lens optional
- LED ON/ OFF optional, pulse count optional
- Automatic Temperature compensation

#### technical specifications
- Operating voltage: 9~16V DC
- Operating Current: ≤28mA (12V DC)
- Operating temperature: -10° C to +50° C
- Optimal Installation height: 2.2m
- Detecting range: 6m
- Detecting angle: 110°
- Alarm output N.C./N.O. Optional
- Dimension: 150 mm x73 mm x 48 mm

## MAGNETIC DOOR SENSORS

The third protective layer is detection of opening of outer doors and windows. Based on a simple and reliable magnetic continuity technology, these detectors will raise an alarm in case any of the doors or windows fitted with these sensors are opened whilst the system is "Armed".

## WS-ID1212
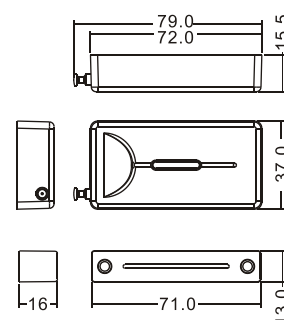**Surface Mount Wireless Magnetic Detector**

### specifications
- White ABS housing
- Wireless Magnetic Sensor
- Transmission Range 100m Open Air
- Tamper Resistant

### technical specifications
- Operating Voltage: 12V DC
- Operating current: ≤ 18mA
- Operating Temperature: -10C ~ +50C
- Alarm Output Com. N/O,N/C
- Active Gap (mm): ≤17mm
- Dimensions: 79mm(L) x (37mm, 13mm)(W) x 15.5mm(H)

79.0
72.0
15.5
37.0
16
71.0
13.0

## WS-ID1113
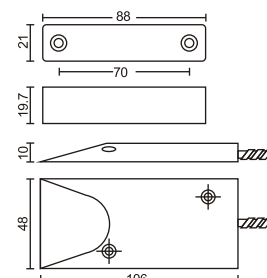**Rolling Shutter Type Wired Magnetic Detector**

### specifications
- Metallic Plated ABS housing to match with Rolling Shutter
- Wireless version also available on request

### technical specifications
- Operating Voltage: ≤ 100V DC
- Operating current: ≤ 500mA
- Operating Temperature: -10C ~ +50C
- Alarm Output: COM.N/O, N/C
- Active Gap (mm): ≥50mm≤65mm

88
21
70
19.7
10
48
106

## GLASS BREAK SENSORS

These sensors are designed for warning a breach through glass front doors, windows or show windows in shops. Any glass breakage within the sensing zone will trigger an alarm, informing the user that intrusion has happened.

## WS-IV1112
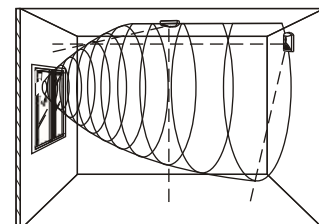**Surface Mount Wired Glass Break Vibration Detector**

### specifications
- Wired Vibration detection methodology
- Two Tone LED display with Test mode
- Lockable Alarm Mode
- Wall / Ceiling mounting.
- Mounting height near ceiling of opposite wall
- Tamper Resistant

### technical specifications
- Operating Voltage: 9~16V DC
- Operating current: ≤25mA
- Operating Temperature: -10C ~ +80C
- Alarm Output N/C
- Dimensions: 92mm x 67mm x 26.4mm

# detectors

## PROTECTION GUARANTEED

**INDOOR MOTION DETECTORS**

In the rare event that intruders manage to penetrate the first 4 defensive layers, they are bound to be trapped by the indoor motion detectors and curtain movement sensors.
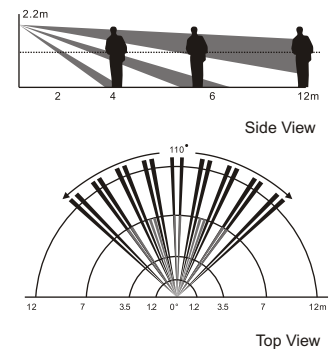
### WS-IM1211
PIR Wireless Motion Sensor

**features**

- White ABS housing
- Dual low-noise pyroelectric infrared sensor
- Ambient temperature compensation
- Transmission Range 100m Open Air
- Tamper Resistant

**technical specifications**

- Operating Voltage: 9VDC(using 6F22 battery)
- Operating current: ≤15mA(9V DC)
- Operating Temperature: -10C ~ +50C
- Alarm Output: Wireless 433 MHz
- Detection Range: 12 m
- Detecting angle: 110°
- Optimum Installation Height: 2.2m
- Dimensions: 114 mm x 60.5 mm x 41 mm

### WS-IM1111
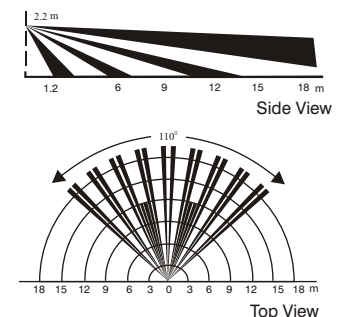PIR Wired Motion Sensor

**specifications**

- White ABS housing
- Dual Infrared PIR sensors for better accuracy
- Ambient Temperature Compensation
- LED ON / OFF Optional.

**technical specifications**

- Operating Voltage: DC 9~16V
- Operating current: ≤25mA (DC 12V)
- Operating Temperature: -10C ~ +50C
- Alarm Output: COM N/O,N/C
- Detection Range: 12m-18m (Optional)
- Detecting angle: 110°
- Optimum Installation Height: 2.2m
- Dimensions: 120 mm x 63.5 mm x 48.5 mm

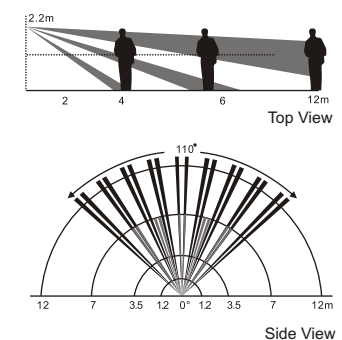### WS-IM1111PI
Pet Immune Wired PIR Sensor

**specifications**

- White ABS housing
- Dual Infrared PIR sensors for better accuracy
- Ambient Temperature Compensation
- LED ON / OFF Optional.

**technical specifications**

- Operating Voltage: DC 9~16V
- Operating current: ≤25mA (DC 12V)
- Operating Temperature: -10C ~ +50C
- Alarm Output: COM N/O,N/C
- Pet immunity: ≤ 35kg
- Detection Range: 12 m
- Detecting angle: 110°
- Optimum Installation Height: 2.2m
- Dimensions: 120 mm x 63.5 mm x 48.5 mm

## INDOOR MOTION DETECTORS

In the rare event that intruders manage to penetrate the first 4 defensive layers, they are bound to be trapped by the indoor motion detectors and curtain movement sensors.

### WS-IM1114BI

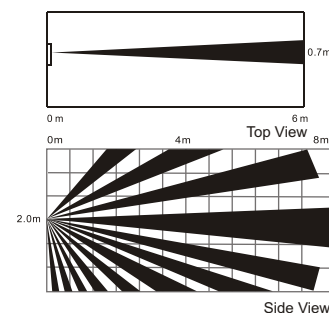Bi-Directional PIR Curtain Wired Motion Sensor

#### features

- White ABS housing
- Tamper Proof
- Ambient Temperature Compensation

#### technical specifications

- Operating Voltage: DC 9~16V
- Operating current: ≤20mA (DC 12V)
- Operating Temperature: -10C ~ +50C
- Alarm Output: N/C
- Detection Range: 8 m
- Detecting angle: 15°
- Optimum Installation Height: 2.0m
- Dimensions: 86.5 mm x 48.5 mm x 32 mm

Top View
Side View

### WS-IM1114UNI

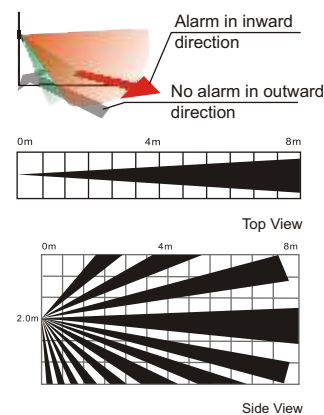Uni-Directional PIR Curtain Wired Motion Sensor

#### features

- White ABS housing
- Adjustable return delay
- Tamper Proof
- Ambient Temperature Compensation

#### technical specifications

- Operating Voltage: DC 9~16V
- Operating current: ≤30mA (DC 12V)
- Operating Temperature: -10C ~ +50C
- Alarm Output: COM N/O, N/C
- Detection Range: 8 m
- Detecting angle: 15°
- Return Time: Adjustable - 1min / 5min / 10min
- Optimum Installation Height: 2.0m
- Dimensions: 129.8 mm x 62.7 mm x 51.4 mm

Alarm in inward direction
No alarm in outward direction
Top View
Side View

# detectors

**FIRE DETECTION**

While the first 5 defensive layers protect users against unwanted intruders, the last 2 layers provide warning against accidents and are safety layers. Two powerful detectors  Heat sensors and Smoke detectors  will warn user of fires or potential fires, so that swift action can be taken to prevent further serious damage.

## WS-IH1111
### 12 V Relay Type Wired Heat Sensor

**features**

- White ABS housing
- Dust proof to avoid false alarm
- LED indication: flashes after every 10 sec

**technical specifications**

- Operating Voltage: 12VDC
- Operating current: ≤50mA(DC-12V)
- Operating Temperature: -10C ~ +85C
- Alarm Temperature : 57°C
- Alarm Output: 12V Relay
- Dimensions: 125 mm x 60 mm

## WS-IS1111
### Ionization Wired Smoke Detector

**features**

- White ABS housing
- Ionization Detector
- Self-test function

**technical specifications**

- Operating Voltage: 9VDC(Battery)
- Operating current: ≤20mA(DC-9V)
- Operating Temperature: -10C ~ +50C
- Alarm Output: Sound & LED flash
- Dimensions: 105 mm x 56.5 mm

## WS-IS1212
### Photoelectric Wireless Smoke Detector

**features**

- White ABS housing
- Dust proof
- Auto reset function
- Transmission Range: 100m Open Air

**technical specifications**

- Operating Voltage: DC 9V
- Operating current: ≤30mA (DC 9V)
- Operating Temperature: -10C ~ +50C
- Alarm Output: Sound & LED flash
- Ceiling Mounting
- Alarm Output: Wireless 433 MHz
- Dimensions: 107 mm x 52.8 mm

**LPG GAS LEAKAGE**

The last layer detects LPG gas leakage, thus warning and helping prevent LPG leakage related accidents and injuries.

## WS-IG1112
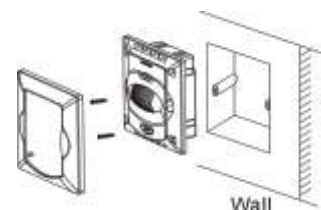### Flush Mount Wired LPG Gas Leakage Detector

**features**

- White ABS housing
- MCU processing.
- Low Power consumption
- Auto reset function

**technical specifications**

- Operating Voltage 220V AC & 12VDC
- Operating current: ≤150mA (12V DC)
- Operating Temperature: -10C ~ +50C
- Wall Mounted
- Gas Detection: LPG & Natural Gas
- Alarm Output: Sound & LED flash
- Dimensions: 86 mm x 86 mm x 42mm

Wall

## WS-IG1211
### Surface Mount Wireless LPG Gas Leakage Detector

**features**

- White ABS housing
- MCU Processing
- Auto reset function
- Transmission Range 100m Open Air

**technical specifications**

- Operating Voltage: DC 12V
- Operating current: ≤180mA (DC 12V)
- Operating Temperature: -10C ~ +50C
- Wall Mounting
- Gas Detection: LPG & Natural Gas
- Alarm Output: Wireless 433 MHz
- Dimensions: 115 mm x 41 mm

**ACCESSORIES**

Accessories are used to perfect the alarm system, including display equipment, signal inputting equipment and installation equipment of detector. It displays alarm signal through flash and sound.

## WS-IN1122
### Flasher Type Wired Piezo Siren

**features**

- White ABS housing
- 300+30 flashes of LED per minute

**technical specifications**

- Operating Voltage: 12V DC
- Operating current: ≤300mA (12V DC)
- Sound output: 108+ 3(dB/m)

# accessories

## WS-IN1121
### Wired Piezo Siren

**features**
- White ABS housing

**technical specifications**
- Operating Voltage: 12 V DC
- Operating current: ≤150mA (DC 12V)
- Operating Temperature: -10C ~ +50C
- Sound Output: 105 + 3(dB/m)

## WS-IE1111
### Key Protected Wired Emergency Button

**features**
- White ABS housing
- Low power consumption
- Sleek and easy to hide design

**technical specifications**
- Operating Voltage: < 250VAC
- Operating current: ≤300mA (250VAC)
- Alarm output: COM. NO/NC
- Dimensions: 53.6 mm x 53.6mm x 6.27mm

## WS-IE1112
### Glass Break Wired Emergency Button

**features**
- ABS Housing in colour
- Low power consumption

**technical specifications**
- Operating Voltage: < 250VAC
- Operating current: ≤300mA (250V AC)
- Alarm output: COM.N/O, N/C

## WS-IE1113
### Sleek Type Wired Emergency Button

**features**
- White ABS housing
- Low power consumption
- Sleek and easy to hide design

**technical specifications**
- Operating Voltage: < 250VAC
- Operating current: ≤300mA (250VAC)
- Alarm output-COM.NO/NC
- Dimensions: 76 mm x 14 mm x 14 mm

## WS-IR1212
### Wireless Remote Key Fobs

**specifications**
- White ABS housing
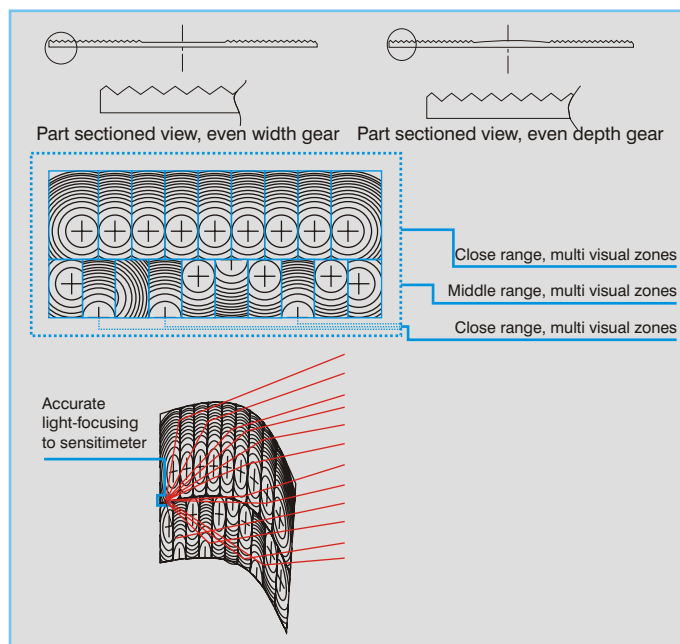- Transmission Range: 100 m

**technical specifications**
- Operation Modes
  1. Arm-away
  2. Arm-at home
  3. Dis-arm
  4. Panic

## FRESNEL TECHNOLOGY
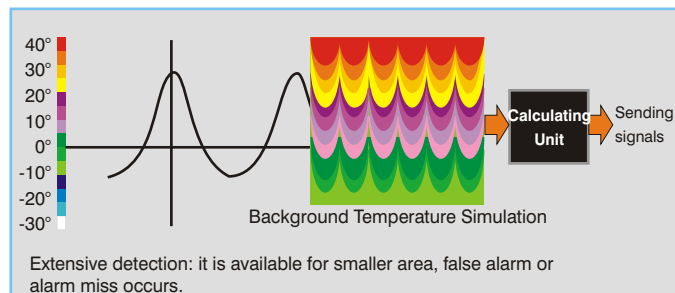
Adopts 5 layer design in lens, which makes the detection more precise and lowering chances of false or miss alarms in multi area designs.
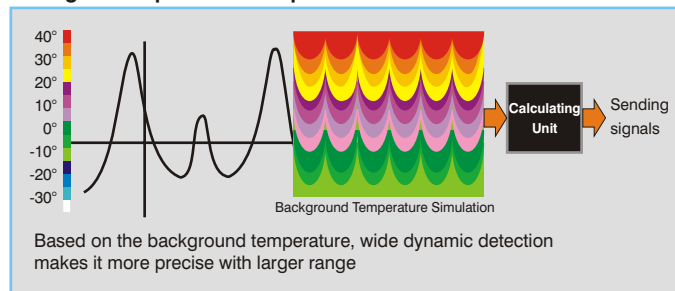
Part sectioned view, even width gear    Part sectioned view, even depth gear

Close range, multi visual zones

Middle range, multi visual zones

Close range, multi visual zones

Accurate light-focusing to sensitimeter

## INTELLIGENT TEMPERATURE COMPENSATION

It ensures accurate motion detection and reduces false alarm specially during hot seasons.

**Common Detection**
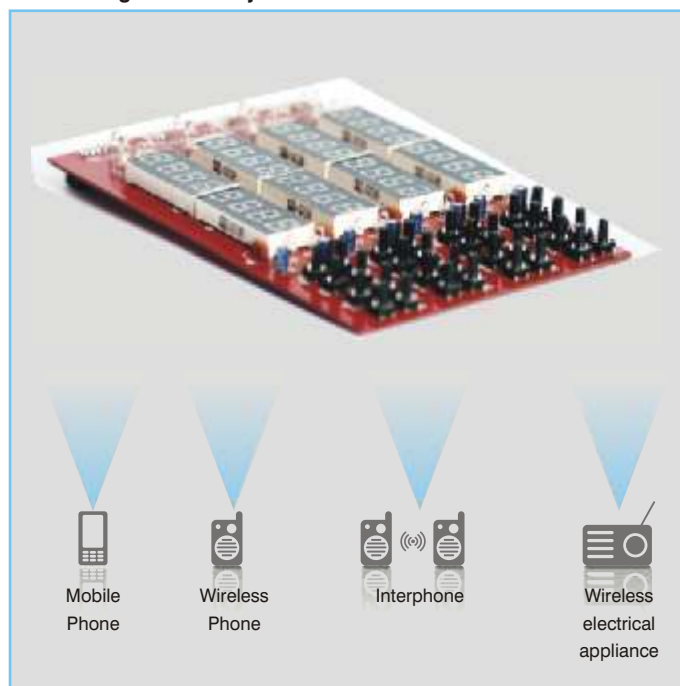
40°
30°
20°
10°
0°
-10°
-20°
-30°

Calculating Unit

Sending signals

Background Temperature Simulation

Extensive detection: it is available for smaller area, false alarm or alarm miss occurs.

**Intelligent Temperature Compensation Detection**

40°
30°
20°
10°
0°
-10°
-20°
-30°

Calculating Unit

Sending signals

Background Temperature Simulation

Based on the background temperature, wide dynamic detection makes it more precise with larger range
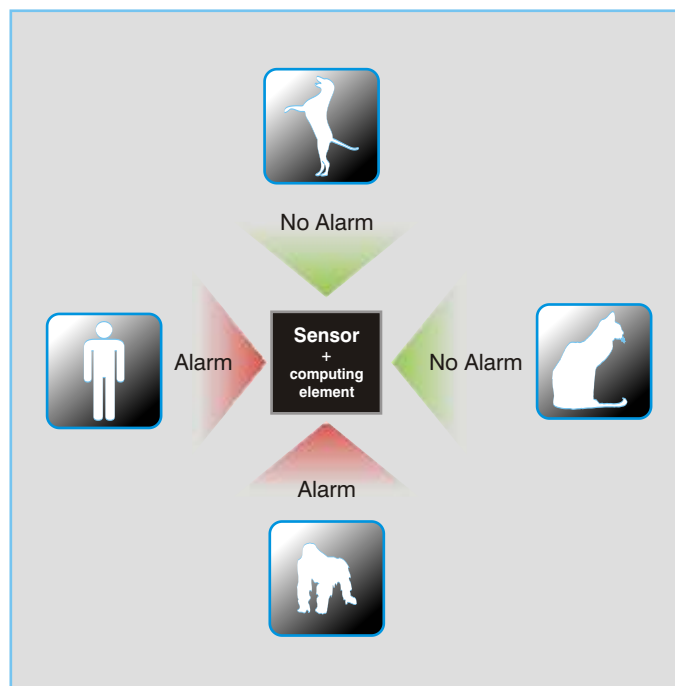
## EMI IMMUNITY

Newly developed high technology integrated circuit, with excellent wiring and partial shield can prevent EMI and wireless interference.

**Wireless signal immunity**

Mobile Phone

Wireless Phone

Interphone

Wireless electrical appliance

## PET IMMUNITY

Sensors with Pet immunity reduce chances of false alarms. This technology is specially useful for families with pets and for outdoor sensors.

No Alarm

Alarm

**Sensor + computing element**

No Alarm

Alarm

**Security and Automation Product Portfolio**

- I-Square intrusion systems
- i3 Intelligent 3 in 1 Video Door Phone
- Video Surveillance
- S2 Transform – Lighting Controls

**WIPRO SECURITY**