



**INTEGRATED PASSIVE INFRARED &  
MICROWAVE DETECTOR**

**DX-40/60 STANDARD  
40/60 P L U S**



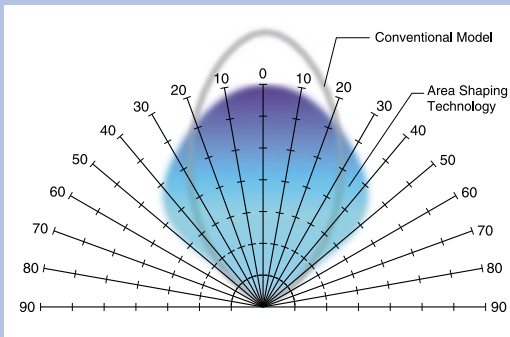
**Combining Quad Zone PIR Technology  
and Unique Microwave Detection**

DX-40/60 models are the result of Optex's advanced research with PIR and Microwave technology. Unique advancements include Patent Pending "Microwave Area Shaping Technology" and Spherical Lens PIR technology with Quad Zone Logic. The design of this product offers easy, trouble-free installation in a compact and attractive housing. These models have features necessary to accommodate virtually any installation.



# Optex Integrated 1 New Dimensions in S

## Microwave Technology Patent Pending "Area Shaping Technology"



Optex Research and Development Department have created a breakthrough in Microwave Detection. The DX-40/60 reduce one of the biggest weak points of microwave detection, that is the penetration of walls and unwanted detection of movement outside the coverage area. In addition, the detection area has uniform sensitivity which minimises false activation's caused by spot movement in the detection area, i.e. small animals. The DX-40/60 are new dimensions in microwave technology.

Microwave Range Selector —  
Trouble Output Selector —  
(DX-40/60 Only)

Lens

\* The shape of Microwave Unit is different by its frequency.

## OPTEX Design and Me Quick and Easy Installation wi

■ Easy installation and wiring are engineered into this compact housing.

# Integrated Microwave &

Improved Tolerance to Spot Movements

No Temperature or Light Disturbance

The DX-40/60 achieve Protection against False Alarms by utilis

## Fail-Safe Technology — Automatic Trouble Monitoring

Passive Infrared does not detect through walls and is never affected by movement beyond these boundaries.

### Anti-PIR Tamper Function (Patent Pending)

When PIR Detection fails (something near the detector blocking the field of view), a trouble output will generate via the \* alarm output (selectable option with DX-40/60) and LED Display.

\* DX-40/60 PLUS have separate Relay Output



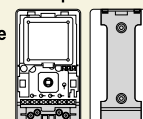
### ● Microwave Watchdog Circuit (Self-Checking Function)

When microwave operation fails, DX-40/60 automatically switch to single PIR operation in Enhanced Reliability Mode avoiding Missed Alarms.

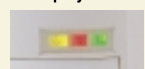
## Trouble-Free Installation

Microwave Area Shaping allows for simple two step adjustment. By making minor adjustments to the Long or Short Range Selector and the Low, Medium, High Sensitivity Volume, the microwave can be shaped to match room size. This technology will not only reduce installation hassle but will reduce false alarms caused by penetration of walls by the microwave detector.

● Wiring Guide & Wide Space at Terminals — Increases ease of installation



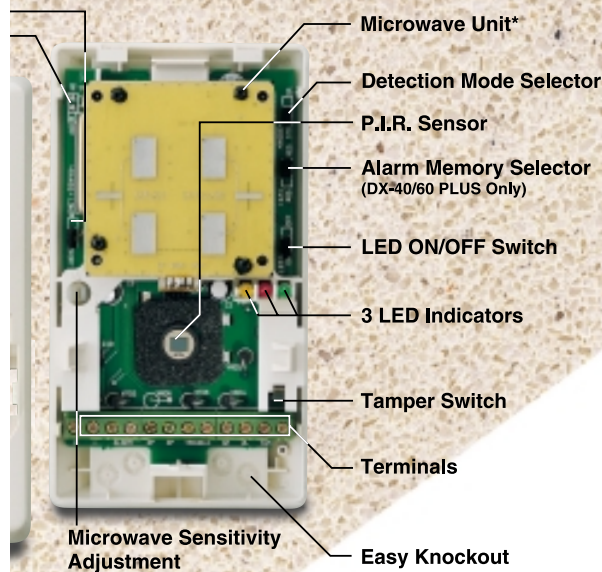
● High Visibility LED Display (3 LED's) — Selectable on/off  
Easy Knockout



● Easy to operate Pin Switches (with instruction directly on the detector)



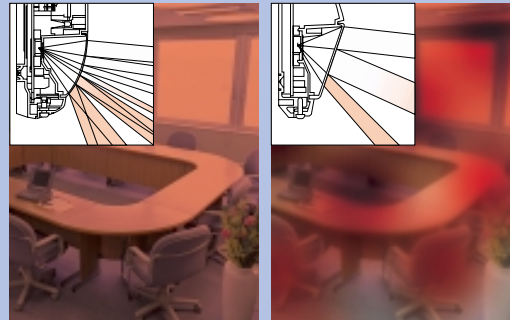
# Technology offers Sensing Performance



## Mechanical Technology with Unique Compact Housing

- Easy Microwave Area Adjustment:
  - Long or Short Distance Selector Switch
  - Low, Medium or High Sensitivity Adjustment

## Passive Infrared Technology Patented Quad Zone Logic with New Spherical Lens



By utilising Optex Advanced Optical Technology, the DX-40/60 create evenly distributed sensitivity throughout the detection area.

Accurate focus creates even sensitivity and high resistance to spot temperature changes. Other detectors may have inconsistent detection creating hot spots (false alarm can occur) and dead spots (no detection).

In addition, the New Spherical Lens contributes to a superior aesthetic appearance which end users will appreciate.

# Passive Infrared Technology

## Re-Enforced with Electronic Analysis

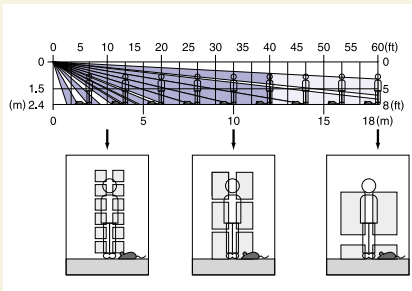
## No Penetration

Using an integrated analysis of both PIR and Microwave signals.

### Detection Area Size Configuration

"Microwave Area Shaping Technology" and "Quad Zone Logic"

The Microwave Area can be easily shaped to fit the desired area and have even sensitivity. In addition, Quad Zone Logic in the PIR provides high tolerance to spot temperature changes and movements caused by small animals, heating vents, moving curtains and vibrations caused by big machinery.



### No False Alarms due to Penetration through walls

Passive Infrared does not detect through walls and is never affected by movement beyond these boundaries.

### No False Alarms by Spot Temperature Changes

DX-40/60 are not affected by spot temperature changes or by sunlight caused by the movement of sunlight through a detection area.

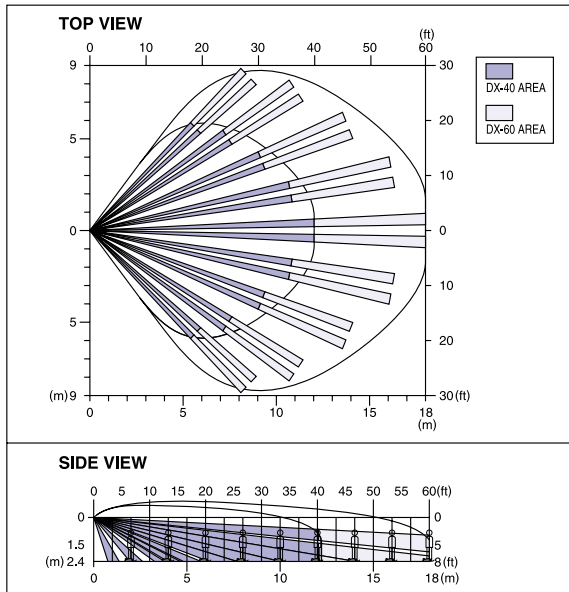
### Enhanced Sealed Optics (Patent Pending)

# DX-40/60PLUS Enhanced Model



- Separate Relay Output for Automatic Trouble Monitoring
- Alarm Memory, Selectable Positive or Negative Input
- LED Remote On/Off Control Input from Control Panel

## DETECTION AREA



## OPTIONAL BRACKETS



**FA-1W**  
Wall Mount Bracket,  
Adjustable  $\pm 45^\circ$  Horizontally,  
0-20° Vertically Downwards



**FA-3**  
Compact Wall & Ceiling Mount Bracket  
Adjustable  $\pm 45^\circ$  Horizontally,  
0-10° Vertically Downwards

## SPECIFICATIONS

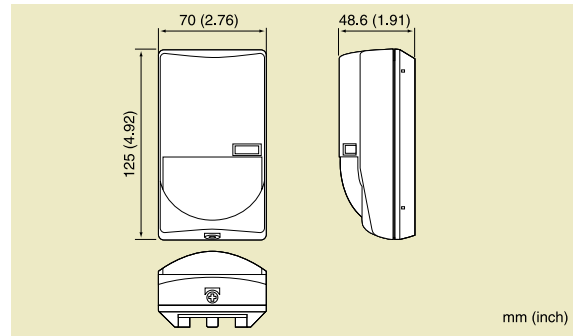
### DX-40/60

Detection method	Passive Infrared and Microwave	
Coverage	40ft x 40ft (12m x 12m) 85° wide	60ft x 60ft (18m x 18m) 85° wide
Detection zones	82 zones (PIR)	
Mounting height	5 ~ 8ft (1.5 ~ 2.4m)	6 ~ 8ft (1.8 ~ 2.4m)
Sensitivity	3.6°F (2°C) at 2ft/s (0.6m/s), 40ft (12m)	3.6°F (2°C) at 2ft/s (0.6m/s), 60ft (18m)
Detectable speed	1 ~ 5ft/s (0.3 ~ 1.5m/s)	
Alarm period	Approx. 2 sec	
Alarm output	N.C. 28VDC 0.2A max.	
Tamper switch	N.C., Open when cover is removed.	
Warm-up period	Approx. 30 sec	
LED indicator	Flicker during warm-up RED : ALARM, ALARM MEMORY and TROUBLE indicator YELLOW : MW and TROUBLE indicator GREEN : P.I.R. and TROUBLE indicator	
Power input	9 ~ 18VDC	
Current draw	12mA (normal), 35mA (max.) at 12VDC	
RF interference	NO Alarm 30V / m	
Operating temperature	14°F ~ 122°F (-10°C ~ +50°C)	
Environment humidity	95% max.	
Microwave frequency	10.525GHz	
Weight	5.3oz (150g)	

### DX-40/60PLUS

Current draw	17mA (normal), 40mA (max.) at 12VDC
D.L. terminal	LED remote control terminal
Alarm memory	Selectable positive and negative control
Trouble output	N.C., 28VDC 0.2A max.
Microwave frequency	10.525GHz

## DIMENSIONS



\*Specifications and design are subjected to change without prior notice

NOTE: This unit is designed to detect movement of an intruder and activate an alarm control panel. Being only a part of a complete system, we cannot accept responsibility for any damages or other consequences resulting from an intrusion. This product conforms to security product category of EMC Directive 89/336 EEC.



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