

# DA'SEL<sup>®</sup> MOTION SENSORS

The sensor range for all your lighting control needs



DA'SEL<sup>®</sup>



## Making light work since 1984

### Introducing the DA'SEL lighting control product range from Energy Conservation Solutions

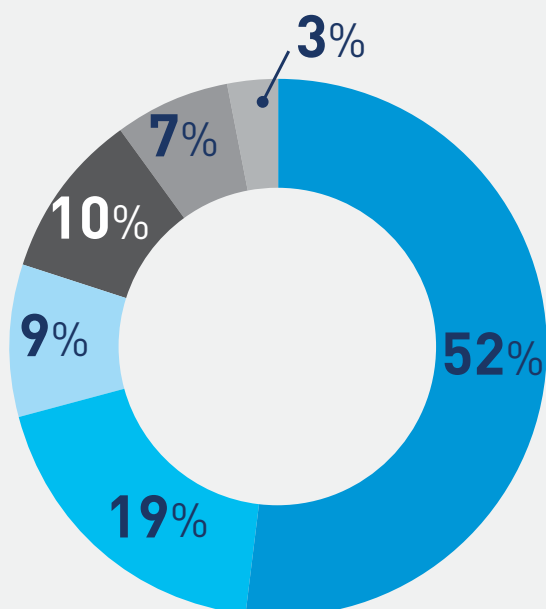
For 30 years ECS has understood the requirements for lighting control across a range of applications. This know-how enables the delivery of optimum energy savings and security without compromising the comfort and performance of the space.

By introducing three different series - **DA'SEL BASIC**, **DA'SEL STANDARD** and **DA'SEL PROFESSIONAL** - this offering allows for greater flexibility in ensuring the correct sensor is used for the right application. When using **DA'SEL PROFESSIONAL PIR** innovations such as micro and macro detection, enhanced photocell technology, yin-yang style pyrolytic and the number of sensor zones/facets ensure the optimum light is always provided.

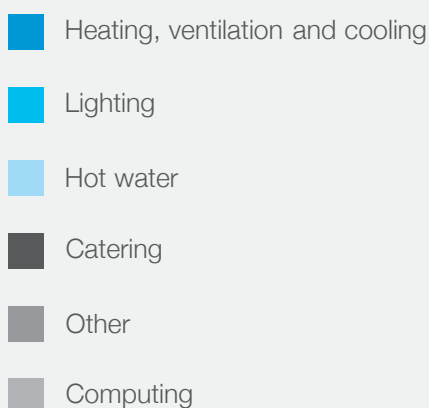
### Making light work for energy saving and security

There was a time when lighting was just about illumination. Today it is about balancing the creation of a comfortable working environment with capital expenditure and ongoing life-cycle costs.

Our range of lighting controls can help you save on energy costs - sometimes as much as 70%. This is achieved by ensuring the lights are off when the space is unoccupied and maximising the use of natural daylight when possible.

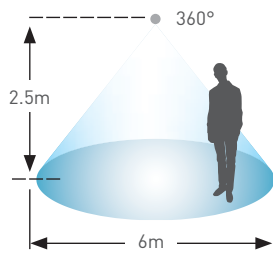


### How your building uses energy



Source: Department of Energy and climate change (July 2012)

### DS100 360° SWITCHING PIR SENSOR



#### FEATURES AND BENEFITS

- Reliable occupancy detection
- Integrated daylight sensing
- Manual controls for adjusting time delay and lux levels
- Available in surface and flush mount
- Detection range of 6m diameter at 2.5m mounting height

#### DETECTION PATTERN

Optimum mounting height of 2.5m, gives detection diameter of 6m

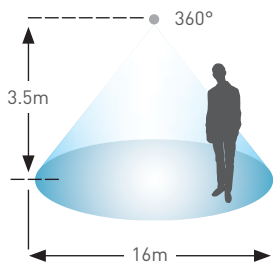
#### TECHNICAL DATA

Technology	PIR
Coverage	360°
Detection range	6m diameter at mounting height of 2.5m
Operating voltage	240VAC / 50 Hz
Delay time	10 seconds to 7 minutes
Load rating	Max 1200W Incandescent Max 300W Fluorescent
Lux level adjustment	3-2000 lux (adjustable)
Fascia colour	White
Material	PC UV proof
Programming	Manual adjustable

#### APPLICATIONS

- Residential
- Small office
- Washrooms
- Storage areas

### DS140F 360° MICROWAVE SENSOR



#### FEATURES AND BENEFITS

- Reliable occupancy detection
- Integrated daylight sensing
- Manual override operation
- Simplified installation
- Detection range 2-16m at 3.5m mounting height

#### DETECTION PATTERN

Optimum mounting height of 3.5m, gives detection diameter of 16m

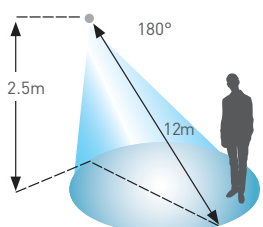
#### TECHNICAL DATA

Technology	Microwave
Coverage	360°
Detection range	16m diameter at mounting height of 3.5m
Operating voltage	240VAC / 50 Hz
Delay time	10 seconds to 12 minutes
Load rating	Max 1200W Incandescent Max 300W Fluorescent
Lux level adjustment	3-2000 lux (adjustable)
HF system	5.8GHz CW radar, ISM band
Fascia colour	White
Material	PC UV proof
Programming	Manual adjustable

#### APPLICATIONS

- Offices
- Corridors
- Washrooms
- Storage areas

### DS130 180° WEATHERPROOF PIR SENSOR



#### FEATURES AND BENEFITS

- Reliable occupancy detection
- Integrated daylight sensing
- Weatherproof housing
- Manual override operation
- Simplified installation
- Detection range of 12m at 2.5m mounting height

#### DETECTION PATTERN

Optimum mounting height of 2.5m, gives detection range of 12m

#### TECHNICAL DATA

Technology	PIR
Coverage	180°
Detection range	12m at mounting height of 2.5m
Operating voltage	220 – 240VAC / 50 Hz
Delay time	8 seconds to 12 minutes
Load rating	Max 1000W Incandescent Max 500W Fluorescent/LED
Lux level adjustment	3-2000 lux (adjustable)
Colour	White
Material	PC UV proof
IP rating	IP44
Programming	Manual adjustable

#### APPLICATIONS

- Garages
- Driveways
- Porches
- Outdoor living areas

### DS200 360° SWITCHING PIR SENSOR DUAL MOUNT

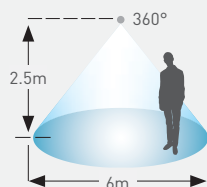


Innovative dual mount system requires only one sensor for either flush or surface mount applications

#### FEATURES AND BENEFITS

- Reliable occupancy detection
- Integrated daylight sensing
- Quick and easy commissioning with simple local controls for time delay and lux level adjustment
- Manual override operation
- Detection range of 6m diameter at 2.5m mounting height

#### DETECTION PATTERN



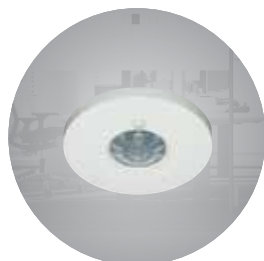
#### TECHNICAL DATA

Technology	PIR
Coverage	360°
Detection range	6m diameter at mounting height of 2.5m
Operating voltage	240VAC / 50 Hz
Delay time	5 seconds to 15 minutes
Load rating	6A
Lux level adjustment	3-2000 lux (adjustable)
Fascia colour	White
IP rating	IP44 (Sensor section only) IP20 (Ceiling board onwards)
Programming	Manual adjustable

#### APPLICATIONS

- Offices
- Corridors
- Washrooms
- Storage areas

### DS220 360° PIR SENSOR DUAL OUTPUT

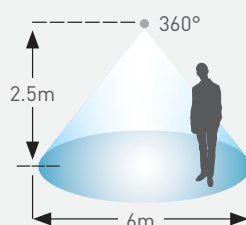


The DS220 Dual output sensor has independent times delays with the unique feature of the second time being a run-on timer.

#### FEATURES AND BENEFITS

- 2 x outputs (1x non-floating, 1x floating)
- Reliable occupancy detection
- Integrated daylight sensing
- Quick and easy commissioning via Quickset Pro for time delay and lux level adjustment
- Detection range of 6m diameter at 2.5m mounting height

#### DETECTION PATTERN



#### TECHNICAL DATA

Technology	PIR
Coverage	360°
Detection range	6m diameter at 2.5m mounting height
Operating voltage	230V +/- 15% 50/60 Hz
Delay time	1 minute to 96 hours
Load rating	6A
Lux level adjustment	5-1000 lux (adjustable)
Outputs	2 x outputs (1x non-floating, 1x floating)
Fascia colour	White
Material	Flame retardant PC/ABS
IP rating	3x
Programming	Via Quickset Pro

#### APPLICATIONS

- Offices
- Corridors
- Washrooms
- Storage areas

### DS280 360° PIR/ACOUSTIC DUAL TECHNOLOGY SENSOR

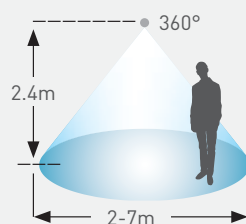


Dual Technology first 'sees' motion using Passive Infrared (PIR) detection and then engages acoustics to hear sounds that indicate continued occupancy.

#### FEATURES AND BENEFITS

- Reliable dual technology with PIR and Acoustic
- Adjustable noise control
- Integrated daylight sensing
- Detection range of 2-7m diameter at 2.4m mounting height

#### DETECTION PATTERN



#### TECHNICAL DATA

Technology	PIR/ Acoustic
Coverage	360°
Detection range	2.7m diameter at mounting height of 2.4m
Operating voltage	240V +/- 15% 50/60 Hz
Delay time	Min 30sec - 20 minutes (5 steps)
Load rating	1000w Incandescent 500VA Fluorescent/Energy saving lamp 250VA LED
Noise adjustment	45dB - 70dB
Lux level adjustment	5 - 1000 lux
Fascia colour	White
Material	PC
IP rating	IP20
Programming	Manual adjustable

#### APPLICATIONS

- Shopping Centers
- Back of house
- Washrooms
- Storage areas
- Stair wells

### DS230 240° WEATHERPROOF PIR SENSOR

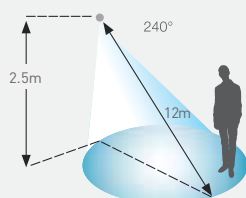


The DS230 Sensor is IP55 rated and has three mounting options, ceiling, wall and corner. One product for all your requirements

#### FEATURES AND BENEFITS

- Reliable occupancy detection
- Integrated daylight sensing
- Weatherproof housing
- Manual override operation
- Wall, ceiling or corner mounting options including universal angle
- Simplified installation
- Detection range of 12m at 2.5m mounting height

#### DETECTION PATTERN



#### TECHNICAL DATA

Technology	PIR
Coverage	240°
Detection range	12 metres at mounting height of 2.5m
Operating voltage	220 - 240VAC / 50 Hz
Delay time	3 seconds to 15 minutes
Load rating	Max 2200W Incandescent Max 600W Fluorescent Max 600W Energy Saving Lamps
Lux level adjustment	5 - 1000 lux (adjustable)
Fascia colour	White
IP rating	IP55
Programming	Manual adjustable

#### APPLICATIONS

- Garages
- Outdoor living areas
- Driveways
- Storage areas



## DS300 360° SWITCHING PIR SENSOR



A range of high performance PIR sensors for dependable switching of lighting loads.

High definition lenses with 155 detection facets/zones, performance optics and software are all optimised to provide class leading sensitivity and occupancy detection ensuring that the lights are always on when required.

### FEATURES AND BENEFITS

- High sensitivity occupancy detection
- Integrated daylight sensing
- Quick and easy commissioning with wireless programming
- Enhanced detection range
- 155 detection facets/zones
- Presence and absence mode operation
- Simplified installation
- Flush and surface mount options

### APPLICATIONS

- Offices
- Washrooms
- Corridors
- Storage areas

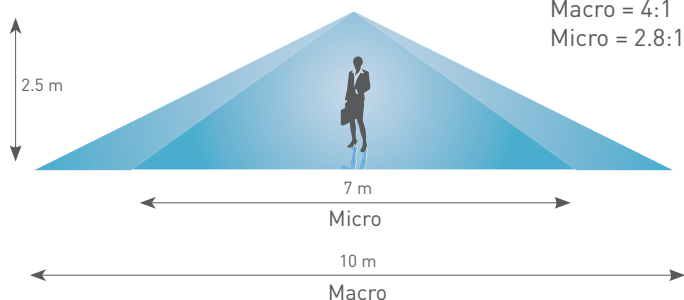
### TECHNICAL DATA

Technology	PIR
Coverage	360°
Detection range	10m diameter at 2.5m mounting height
Operating voltage	230V +/- 15% 50/60 Hz
Delay time	5, 10, 20, 40 minutes
Walk test	10 seconds
Load rating	6A
Lux level adjustment	100 – 1000 lux
Fascia colour	White
Material	Flame retardant PC/ABS
IP rating	IP4X
Programming	Via Quickset

### KEY PROGRAMMABLE PARAMETERS

	DS300	Defaults
Occupancy timeout	5, 10, 20, 40 minutes	20 minutes
Photocell operation	Off/On	On
Photocell turn ON level	100 – 1000 lux	200 lux
Photocell turn OFF level	100 – 1000 lux	800 lux
Walk test		10 seconds
Trigger mode	Presence/Absence	Presence

### Standard Mount



## DS320 360° MICROWAVE SENSOR DUAL OUTPUT

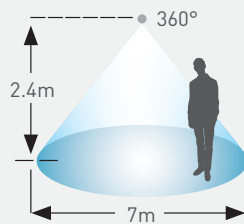


The DS320 is unique with both microwave technology and dual switching, great for washrooms and areas that need movement sensitivity.

### FEATURES AND BENEFITS

- 2 x outputs (1x non-floating, 1x floating)
- Reliable occupancy detection
- Integrated daylight sensing
- Quick and easy commissioning via Quickset Pro for time delay and lux level adjustment
- Detection range of 7m diameter at 2.4m mounting height

### DETECTION PATTERN



### TECHNICAL DATA

Technology	Microwave
Coverage	360°
Detection range	7m diameter at 2.4m mounting height
Operating voltage	230V/50 Hz
Delay time	1 minute to 96 hours
Load rating	10A per output
Lux level adjustment	0-5000 lux (adjustable)
Fascia colour	White
IP rating	3X
Programming	Via Quickset Pro

### APPLICATIONS

- Offices
- Corridors
- Washrooms
- Storage areas

## DS330 IP66 360° PIR SENSOR

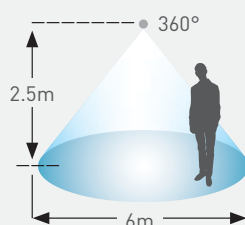


The DS330 sensor is IP66 rated and ideal for use in zone environments such as bathrooms, shower rooms, washdown areas etc..

### FEATURES AND BENEFITS

- Reliable occupancy detection
- Integrated daylight sensing
- Detection range of 6m diameter at 2.5m mounting height

### DETECTION PATTERN



### TECHNICAL DATA

Technology	PIR
Coverage	360°
Detection range	6m diameter at 2.5m mounting height
Operating voltage	230V +/- 15% 50/60 Hz
Delay time	10 seconds to 40 minutes in 9 steps
Load rating	Up to 6 amps (1500W) of resistive loads. Up to 6 amps (1500W) of fluorescent loads. Up to 3 amps (750W) of electronic and wire wound transformer loads. Up to 2 amps (500W) of CFL, 2D lamps, LED Drivers and LED lamps and fittings. Up to 1 amp (250W) of fans.
Lux level adjustment	30 - 1000 lux
Fascia colour	White
Material	Flame retardant PC/ABS
IP rating	IP66
Programming	Manual adjustable

### APPLICATIONS

- Bathrooms
- Shower room
- Wash down area
- Washrooms

## DS340 LONG RANGE CORRIDOR PIR SENSOR

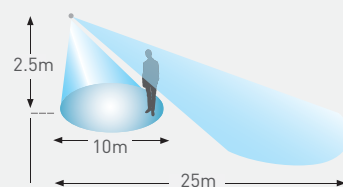


The DS340 is a long range sensor designed for corridors and storage aisles giving up to 25m detection range.

### FEATURES AND BENEFITS

- Reliable occupancy detection
- Integrated daylight sensing
- Detection range up to 25m at 3m mounting height

### DETECTION PATTERN



### TECHNICAL DATA

Technology	PIR
Coverage	Narrow beam
Detection range	Up to 25m at 2.5m mounting height
Operating voltage	230V +/- 15% 50/60 Hz
Delay time	10 seconds to 40 minutes in 9 steps
Load rating	Up to 6 amps (1500W) of resistive, fluorescent or inductive lighting loads, or up to 1 amp (250W) of fans.
Lux level adjustment	100 – 1000 lux
Fascia colour	White
Material	Flame retardant PC/ABS
IP rating	IP4X
Programming	Manual adjustable

### APPLICATIONS

- Offices
- Corridors
- Washrooms
- Storage areas

## DS40X AND DS50X BATTENFIT 360° PIR SENSOR



DS501 BattenFit



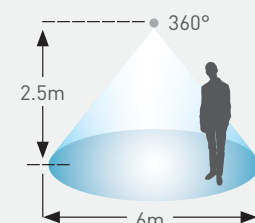
DS500 BattenFit

The BattenFit sensor, is an easy-to-fit control solution for batten-style luminaires.

### FEATURES AND BENEFITS

- Reliable occupancy detection
- Integrated daylight sensing (model specific)
- Detection range of 6m diameter at 2.5m mounting height

### DETECTION PATTERN



### TECHNICAL DATA

Technology	PIR
Coverage	360°
Detection range	6m diameter at 2.5m mounting height
Operating voltage	230V +/- 15% 50/60 Hz
Delay time	DS400 and DS500 fixed 20 minutes DS401 and DS501 adjustable 5, 10 or 20 minutes
Load rating	2A - Max ballasts 4 (electronic or HF)
Lux level adjustment	DS500 and DS501 only adjustable photo cell 50 - 5000 lux
Material	Flame retardant PC/ABS
IP rating	DS400 and DS500 IP4X DS401 and DS501 IP65
Fascia colour	White
Programming	Via HP18

### APPLICATIONS

- Shopping centers
- Back of house
- Washrooms
- Storage areas
- Stair wells



## DS350 360° PIR HI-BAY SENSOR



Large open warehouses with high ceilings mean high energy costs. The DA'SEL range includes sensors that are optimised for peak performance in these spaces.

Using high definition optics, precise masking and user-defined daylight linking, DA'SEL saves energy by ensuring lights are never left burning needlessly in vacant areas or where there is already enough natural light.

The range covers mounting heights up to 16m in both recessed and surface mount.

Both the Mid-Bay and Hi-Bay sensors are engineered to deliver optimum presence detection. The Mid-Bay sensor is suited to mounting heights up to 12m, while the Hi-Bay sensor is suited to mounting heights up to 16m.

### FEATURES AND BENEFITS

- High sensitivity occupancy detection
- Integrated daylight sensing
- Quick and easy commissioning with wireless programming
- Enhanced detection range
- Ratio: Mid-Bay 2:1  
Hi-Bay 1.9:1
- Presence and absence mode operation
- Simplified installation
- Flush and surface mount options

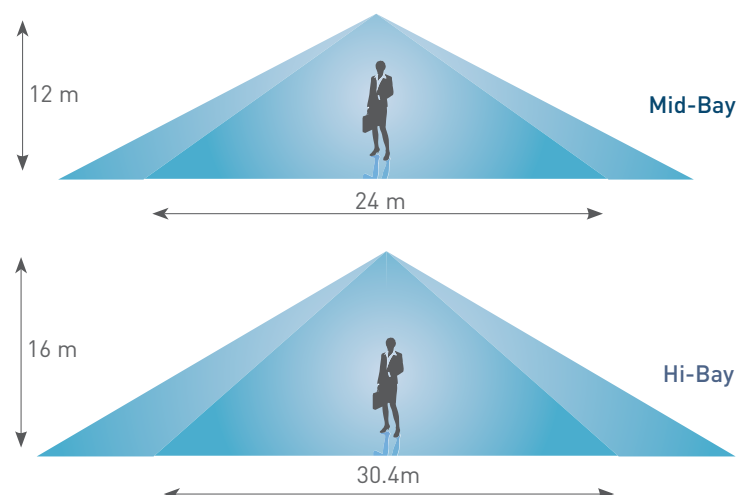
### APPLICATIONS

- Offices
- Corridors
- Washrooms
- Storage areas

### TECHNICAL DATA

Technology	PIR
Coverage	360°
Detection range	<b>Mid-Bay</b> Max 24m diameter at 12m mounting height <b>Hi-Bay</b> Max 30.4m diameter at 16m mounting height
Operating voltage	230V +/- 15% 50/60 Hz
Delay time	5, 10, 20, or 40 minute
Walk test	10 seconds
Load rating	6A
Lux level adjustment	100 – 1000 lux
Fascia colour	White
Material	Flame retardant PC/ABS
IP rating	IP4X
Programming	Via Quickset

### DETECTION PATTERN



## DS700 90° ULTRASONIC SENSOR

The DS700 Ultrasonic sensor uses a specially developed ultrasonic radar to monitor the controlled space for movement. This radar is sensitive enough to respond to even very small movements thus ensuring that lights are sustained whenever the controlled space is occupied.



### TECHNICAL DATA

Technology	Ultrasonic
Coverage	90°
Detection range	Adjustable up to 15m at 3.5m mounting height
Operating voltage	220 – 240VAC / 50 Hz
Delay time	5, 10 or 15 minutes (adjustable)
Load rating	Max 10 Amps - Incandescent lamps: 1500w max (at 230V)
Lux level adjustment	50 - 5000 lux (adjustable)
Fascia colour	White
Material	Flame retardant PC/ABS
IP rating	IP3X
Programming	Manual adjustable

### FEATURES AND BENEFITS

- Reliable occupancy detection
- Integrated daylight sensing
- Manual controls for adjusting time delay and lux levels
- Large switching capacity
- Wall mounting option

### APPLICATIONS

- Offices
- Corridors
- Washrooms
- Storage areas
- Rest rooms

## DS800 90° MICROWAVE SENSOR

The DS800 Microwave sensor is a high performance, directional presence sensor with built-in photocell for use in almost any internal space. It is ideal for larger classrooms, conference rooms, storage aisles etc.



### TECHNICAL DATA

Technology	Microwave
Coverage	90°
Detection range	Adjustable up to 20m at 3.5m mounting height
Operating voltage	240VAC 50 / 60 Hz
Delay time	1 minute to 96 hours
Load rating	Max 10 Amps - 10 Amps max any lighting load except incandescent lamps: 1500W max (at 230V~)
Lux level adjustment	Passive
Fascia colour	White
Material	Flame retardant ABS
IP rating	IP43 Ceiling mounted IP4X Wall mounted
Programming	via Quickset Pro

### FEATURES AND BENEFITS

- Reliable occupancy detection
- Integrated daylight sensing
- Large switching capacity
- Wall mounting option

### APPLICATIONS

- Classrooms
- Conference /board rooms
- Basement car parks
- Long corridors
- Storage aisle



## QUICKSET PRO

The QuickSet Pro infra-red programming tool makes it quick and easy to adjust or commission your system, make changes to the settings and add new devices.

### Its features include:

- Four time delay settings - 5, 10, 20 and 40 minutes
- Presence and absence detection mode
- Enable/disable photocell
- Compatible with all DA'SEL Profesional products (except DS700, DS330, DS340 and DS380)
- Walk test
- Restore factory defaults



## QUICKSET

QuickSet is a basic infra-red programming tool specifically designed for some DA'SEL Profesional products.

### Its features include:

- Four time delay settings - 5, 10, 20 and 40 minutes
- Presence and absence detection mode
- Enable/disable photocell
- Walk test
- Restore factory defaults



## HP18

HP18 is a basic infra-red programming tool specifically designed for some DA'SEL Profesional and Standard products.

### Its features include:

- Three time delay settings - 5, 10, and 30 minutes
- Enable/disable photocell
- Walk test
- Set light levels

## PRODUCT SELECTOR

DA'SEL BASIC	
PRODUCT CODE	DESCRIPTION
DS100F	360° PIR sensor manually adjustable time delay and photocell flush mount
DS100S	360° PIR sensor, manually adjustable time delay and photocell, surface mount
DS130	180° PIR sensor, IP44, 12m manually adjustable time delay and photocell, surface mount
DS140F	360° Microwave sensor, manually adjustable time delay and photocell, flush mount

DA'SEL STANDARD	
PRODUCT CODE	DESCRIPTION
DS200	360° PIR sensor, manually adjustable time delay and photocell, dual mount flush/surface
DS200F	360° PIR sensor, manually adjustable dual time delay outputs and photocell, flush mount
DS200S	360° PIR sensor, manually adjustable dual time delay outputs and photocell, surface mount
DS230	240° PIR sensor, IP55, 12m manually adjustable time delay and photocell, surface mount
DS280	360° Dual technology PIR/acoustic sensor, manually adjustable time delay, photocell and voice adjustment, slim surface mount

DA'SEL PROFESSIONAL	
PRODUCT CODE	DESCRIPTION
DS300F	360° PIR sensor, adjustable time delay and photocell, flush mount
DS300S	360° PIR sensor, adjustable time delay and photocell, surface mount
DS320F	360° Microwave sensor, adjustable dual time delay outputs and photocell, flush mount
DS320S	360° Microwave sensor, adjustable dual time delay outputs and photocell, surface mount
DS330S	360° PIR sensor, IP66, manually adjustable time delay and photocell, surface mount
DS340	360° PIR long range and sensor, adjustable angle sensor manually adjustable time delay and photocell, flush mount
DS350MBF	360° PIR Mid-Bay sensor, adjustable time delay and photocell, flush mount
DS350MBS	360° PIR Mid-Bay sensor, adjustable time delay and photocell, surface mount
DS350HBF	360° PIR Hi-Bay sensor, adjustable time delay and photocell, flush mount
DS350HBS	360° PIR Hi-Bay sensor, adjustable time delay and photocell, surface mount

DA'SEL PROFESSIONAL (CONTINUED)	
PRODUCT CODE	DESCRIPTION
DS400	360° BattenFit PIR sensor, 20min fixed time delay
DS401	360° BattenFit PIR sensor, IP65, 20min fixed time delay
DS500	360° BattenFit PIR sensor, adjustable time delay and photocell
DS501	360° BattenFit PIR sensor, IP65, adjustable time delay and photocell
DS700	90° Ultrasonic sensor, manually adjustable time delay and photocell
DS800	90° Microwave sensor, adjustable time delay with passive photocell
WMK-U	Wall mounting kit for DS700 ultrasonic sensor
WMK-M	Wall mounting kit for DS800 microwave sensor

PROGRAMMING TOOLS FOR PROFESSIONAL SERIES ONLY	
PRODUCT CODE	DESCRIPTION
QuickSet Pro	Digital 2-way Programming Tool for: all DA'SEL Professional Sensors except the DS700, DS330, DS340 and DS380 (manually adjustable only)
QuickSet	Digital Programming Tool for: all DA'SEL Professional Sensors except for DS700, DS330, DS340 and DS380 (manually adjustable only) and DS401 and DS501 (use HP18)
HP18	Programmer/Override for DS401 and DS501 series only