

The Crow Group provides innovative and creative solutions for residential and commercial applications with an extensive range of smart panels and a broad portfolio of indoor and outdoor wired and wireless peripherals to create smart and secure homes.

Our products are available worldwide through a dynamic network of distributors and sales offices to professional installers as well as central and care monitoring stations.

Crow, a market leader in Security since 1977, is now adding deep expertise and development in artificial intelligence, video analytics and smart cloud providing solutions for Security, Monitoring and Telecare.



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# SHEPHERD<sup>™</sup> Security System

Communication

Smart Security Analytics

Ecosystem

Alarm Panel

Keypad & Remote Keyfobs

Repeater



PIR Detector





PIRCAM Detector

PIR Curtain Detector





Magnet contact device



Audio Verification Module



Glass Break Detector







Indoor Sounder

### SHEPHERD<sup>™</sup> Communication

Shepherd<sup>™</sup> is Crow's next generation of Security and Safety panels, offering the highest standards of reliability in data transmission via its multiple encrypted communication paths and advanced Cloud services suite.

- $\sqrt{}$  Smart and wide Portfolio for Security, Safety & Home Comfort devices.
- $\sqrt{}$  Ecosystem with Smart Connected Home Devices and Peripherals with extended life time.
- √ SOTA "Software Update Over-The-Air" for easy remote configuration, wireless equipment upgrade and testing.
- $\sqrt{~}$  FOTA "Firmware Over-The-Air" for devices.
- $\sqrt{\phantom{0}}$  Advanced diagnostic tools for optimal installation and configuration.
- $\sqrt{}\,$  Artificial Intelligence with detection and recognition.
- $\sqrt{\phantom{1}}$  Outstanding Crow Cloud and Smart Shepherd^M Apps.
- $\sqrt{}$  CMS/ ARC Management Software Support.
- $\sqrt{}\,$  Big Data turned into Smart Data.
- $\sqrt{}$  Compatible with Amazon Alexa and Google Assistant for IoT Voice activation.



### **Smart Security Analytics**

Big data is about both storage and analytics. It gives the ability to gather massive amounts of digital information to analyze, visualize and draw insights that enable prediction and prevention of potential threats.



#### Crow turns Big Data into Smart Data for the benefit of CMS, installers and users

Intelligent video motion detection

Artificial Intelligence with detection and recognition

Analysis and Storage for watchlisting and prevention

Individuals in the identification scene vs. real-time stored database

Crow has developed security and surveillance applications that perfectly fit either residential or commercial environments.

Crow's solutions in the Smart Security market take advantage of the full suite of Crow's analytics algorithms, software and Cloud running on co-located servers, or as a cloud based web service running on public or private cloud.

Crow's analytics make devices truly smart by analyzing content in real-time, extracting metadata, sending out alerts and providing intelligence to the whole security Ecosystem.

We are able to extract just the valid motion in a scene, filtering out noise such as lighting changes and animal motions, thereby reducing false alarms to virtually zero.

Key features include object classification (human/pet/vehicle), intrusion detection and line crossing, people/ vehicle counting object left/removed and video summary.

## SHEPHERD<sup>™</sup> Ecosystem



#### SHEPHERD™ Alarm Panel



Zones	Up to 64 Wireless Zones (ISM & DECT ULE)
Areas	Up to 4 Partitions (areas)
Users	Up to 16 users with codes and/or pendants
Arming Modes	Total, Stay, Latchkey, Duress, Bypass
Outputs	Up to 48 Wireless Outputs (ISM & DECT)
Visual Verification	Up to 8 indoor or outdoor PIRCAM detectors
Connectivity	3G/LTE, WI-FI, IP, FULL DUPLEX VOICE
RF Network Types	Two Way ISM bands 868 and 916 Mhz (5 Radio Frequency Agility) DECT Audio and DECT ULE
Immunity	RF : AES 256 NETWORK : TLS
Operating Range	500 meters open space
Report Channels	Up to 8 report channels: TCP/IP, Wi-Fi, GSM/GPRS, SMS
Protocols to CMS	Crow Proprietary Protocol, SIA DC09 –SIA DCS, SIA-05 (ADM –CID)
Programming	Via Web browser interface
Log Events	More than 2000 events
Time Zones	Up to 8 Time Zones
Mounting	Wall mount with front & back tamper protection
Power Input	110V or 230V AC 50/60Hz
Power Supply Type	Internal AC/DC Adaptor 6V/2A
Backup Battery Type	Battery Pack 3.7V/2600mAh
Battery Autonomy	12 Hours / optional 24 hours
Battery Charge Max Current	Approx. 500mA
Dimensions & Weight (Inc. battery)	234 mm x 166 mm x 32 mm / 1.40Kg
Operating Temperature	-10° C to 55 °C
Compliance	EN50131 Security Grade 2 Class II

### SH-KP & FW2-RMT

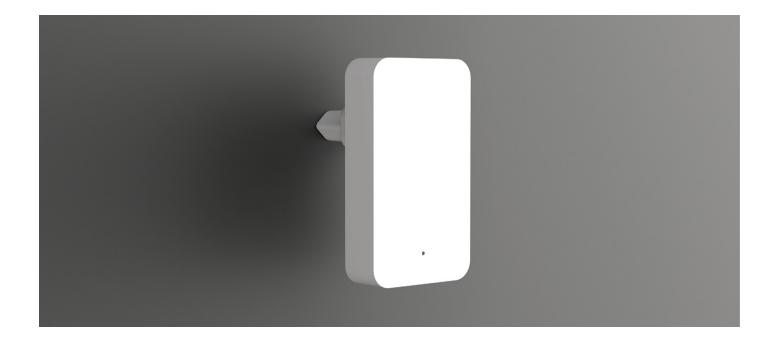
Wireless Keypad and Remote Keyfobs



SH-KP is the Shepherd<sup>™</sup> panel's fully wireless icon keypad with RFID & internal sounder. FW2-RMT is a 4-button two-way wireless keyfob for arming and disarming the Shepherd<sup>™</sup> panel with visual LED confirmation.

The FW2-RMT as well as the proximity tags can be attached to a keychain.

	SH-KP	FW2-RMT
Operation Method	Icon LED Keypad & RFID	4 independent and programmable buttons
Communication Protocol	Freewave2™ two-way ISM GFSK with 5 frequencies & LBT	Freewave2™ two-way Protocol GFSK with 5 frequencies & LBT
Frequency Band	868MHz or 916MHZ	868MHz or 916MHz
Identification	Unique ID serial number – 24 bit	Unique ID serial number – 24 bit
Proximity Tag	RFID ISO 15693	N/A
Functions	Arm, Disarm, Zone Bypass, Panic Alarm, Chime Local Programming mode (users/tags)	Arm / Disarm Panic Alarm
Communication Range	500m open space	150m open space
Current Consumption	Average current: 80uA Max Current: 350mA at beeps	Standby: <1 μA Transmission: ~30 mA
Battery	2 x Lithium batteries 1.5V AA Energizer L91	Lithium 3V Size CR2032
Battery Life	Up to 3 years	Up to 5 years
Operating Temperature	-10°C to +55°C	-10°C to +55°C
Dimensions	152mm x 87mm x 28mm	87mm x 38mm x 12mm
Weight	200 gr	20 gr
Compliance	EN50131 Security Grade 2 Class II	EN50131 Security Grade 2 Class II



The SH-RPT enables continuous measurement of communication quality. It features LED indications for activity, diagnostics and power failure. The Shepherd supports up to 4 SH-RPT.

	SH-RPT
Communication Protocol	Freewave2™ two-way ISM GFSK with 5 frequencies & LBT
Frequency Band	868MHz or 916MHZ
Identification	Unique ID serial number – 24 bit
Range	500m open space
Functions	Range Extension Alarm, Tamper, Supervision, Low Batt
Power	230V or 120V
Battery Backup	Battery pack 3.7V/250mAh Polymer
Battery Autonomy	Up to 9hours
Operating Temperature	-10°C to +50°C – Indoor Environment
Dimensions	98mm x 73mm x 55mm
Weight	150gr
Compliance	CE

# **Crow Apps and Web Pages**

## **Crow Pro Apps**

Smartphone Apps for IOS and Android Users

Whether at home, at work, on a business trip, or on vacation, the CrowPro Alarm™ smart apps provide the easiest way to monitor and control your Shepherd™ Panel.

Control panel status (Arm, Disarm...) Check latest events See and Operate on active Outputs (Activate/Deactivate) See and Operate Zones (Activate/Deactivate Bypass) Take picture from connected Pircam(s) View stored pictures and Share them (via mail, message...) Access to Panel & Users Info Switch between linked panels (home, office...)





## Personal Web Page



With Crow Personal Page<sup>™</sup>, you can also monitor and control the Shepherd<sup>™</sup> panel through your PC via a web friendly personal web page.

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Area 4	Edit		Exit Installer Mode 21/01/2019 O 3:58PM		
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			21/01/2019 © 3:58PM Full CFG Save by zvit@crow		
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			Exit Installer Mode 21/01/2019 3:58PM	100	
			Exit Installer Mode		
			21/01/2019 ③ 3:58PM Zone Params Edited in Zone	4 by	
			zvif@crow.co.il 21/01/2019 O 3:58PM		



### Installer Web Page

Secure Web Access for Installers & Monitoring Centers

The Crowcloud<sup>™</sup> Web Installer is a friendly interface which enables to configure, monitor, test and control Shepherd<sup>™</sup> alarm panels, their communication and connected devices.

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	Panel Configuration  Users  Areas  Configuration  C	Remote Access Servers password		TCP/IP S Ethernet enabled D DHCP enabled DNS server TCP remote control port 3004	Static IP Subnet mask Gatleway	GSM (P e GSM APN internet USSD PNN code	nabled GSM SMS enabled GSM user GSM password Language English •	
	Image: Second	Communication Options Time to first test connection Inter to first test connection Test connection time period O Test connection time period O Phone number for remole control MD Phone 1		curity type Pa WPAAWPA2-PSK • WPAAWPA2-PSK • Open •	sssword C D D C C C C C C C C C C C C C	CT DECT enabled aam DECT davka water DECT HAN davke water DECT HS davke CCT contact number S542234552	RF Slaring RF channel  Enable 433 Mh Repeater  ff) Serial  2 2758750  2 0  3 0	B Delete B Delete B Delete
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# **Video Verification**

Indoor PIRCAM Detectors

Outdoor PIRCAM Detector

Verification Camera

HD IP CAMERA

4K IP CAMERA with Face recognition and AI

## SH & FW2-PIRCAM-IN

#### Wireless Indoor PIR & Camera Detectors

Crow's Indoor PIRCAMs are two-way wireless motion detectors with built-in CMOS high quality color cameras. They provide an ideal solution for video verification via pictures transmitted to a CMS or to your mobile phone via CrowPro Apps. Both users and CMS can verify alarms day and night by viewing real-time color images captured by Crow's PIRCAMs for fast and accurate response to real alarm events. They can be configured Over-The-Air.



	SH-PIRCAM	FW2-PIRCAM
Detection Method	Quad Pyro Element Sensor & CMOS HDR Camera	Quad Pyro Element Sensor & CMOS camera
Optics	Mirror Optics and Creep Zone	Fresnel Optics
Communication Protocol	Freewave2™ two-way ISM GFSK with 5 freq. & LBT	Freewave2™ two-way ISM GFSK with 5 freq. & LBT
Operating Frequencies	868MHz or 916MHz	868MHz or 916MHz
Identification	Unique ID serial number – 24 bit	Unique ID serial number – 24 bit
CAM Resolution	VGA or QVGA	VGA or QVGA
CMOS Sensitivity	16VLux/sec	16VLux/sec
Picture Mode & Resolution	Configurable VGA / QVGA	Configurable VGA / QVGA
Detection Range	12 m	12 m
Events Transmission	Alarm, Tamper, Supervision, Low Bat, Keep Alive	Alarm, Tamper, Supervision, Low Bat, Keep Alive
Supervision Time	7 min by default (configurable between 1 to 30 min)	7 min by default (configurable between 1 to 30 min)
Transmission Range	500m open space	500m open space
Pet Immunity	Up to 25 kg	Up to 25 kg
Battery	2 x Lithium batteries 1.5V AA Energizer L91	3 Lithium battery 3V CR123
Battery Life	Up to 5 years	Up to 5 years
Current Consumption	Receive mode ~26 mA Transmit mode ~52 mA	Receive mode – 24mA Transmit mode – 38mA
Tamper Switch	Front Cover and Wall Removal	Front Cover and Wall Removal
Operating Temperature	-10°C to +55°C	-10°C to +55°C
Dimensions/Weight	112mm x 58mm x 45mm / 120 gr.	129.5mm x 67.4mm x 52mm / 200gr
Compliance	EN50131 Security Grade 2 Class II	EN50131 Security Grade 2 Class II

### FW2-PIRCAM-OUT

Wireless Outdoor PIR & Camera Detector



#### FW2-PIRCAM-OUT

Detection Method / CAM Resolution	Quad PIR & CMOS Camera with VGA or QVGA	
Communication Protocol	Freewave2™ Two Way ISM GFSK with 5 frequencies & LBT	
Frequencies	868MHz or 916MHz	
Identification	Unique ID serial number	
Events Transmission	Alarm, Tamper, Supervision, Low Bat	
Communication Range	500m open space	
Detection Range	12 m	
Pet Immunity	With Mask	
Detection Mode Sensitivity (configurable)	"Take Picture" mode: ≥ 16 VLux/sec – Color Picture ≤ 16 VLux/sec – B&W Picture with IR LED "Alarm" mode: B&W or VGA/QVGA Color picture	
Battery Life	Up to 7 years	
Current Consumption	Average Current : 200uA	
Battery	2 x 3.6V /13Ah Lithium ,D-Size (ER3415M)	
Operation Temperature	-25°C ~ +55 °C	
IP Rating	IP 65	
Dimensions	135mm x 75mm x 70mm	
Weight	400gr	
Compliance	EN50131 Security Grade 2 Class II	

### SH-CAM Verification Camera

Crow's SH-CAM is a two-way wireless CMOS camera for day and night high quality color pictures.

The SH-CAM can be tied to other Shepherd™ security or safety peripherals such as PIR, smoke or flood detectors or doorbells.

It can also be linked with Telecare Fall detectors for visual event verification.

It is battery operated and ideal for CMS, Telecare or by authorized users.

The SH-CAM like all any other Shepherd™ peripherals can be configured Over-The-Air.

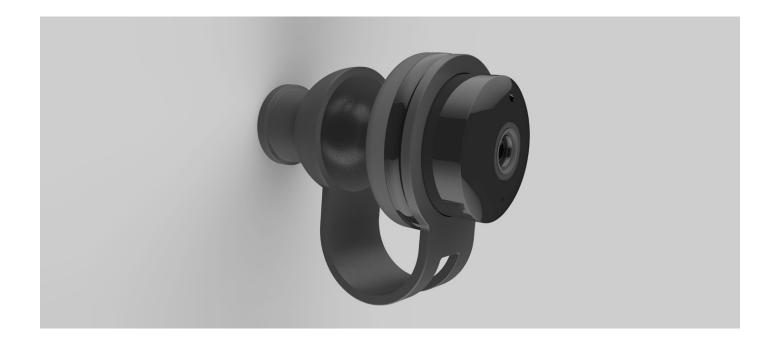


	SH-CAM		
Communication Protocol	Freewave2™ two-way ISM GFSK with 5 freq. & LBT		
Camera sensor	VGA/QVGA, 16V lux/sec, field of view 90°		
Battery	2 x Lithium batteries 1.5V AA		
Night Vision	High–power White LED Day and Night high quality color pictures IR cut-off filter		
Tamper protection	3 Axis MEMS accelerometer		
Transmission Range	500m open space		
Operating frequencies	868MHz or 916MHz		
Operating Temperature	-10°C to +55°C Weather resistant		
Sensors	Ambient light, Temperature, Accelerometer		
Dimensions	60mm X 60mm x 45mm		
Compliance	CE		

#### SH-HD-IPCAM HD IP Camera

The SH-HD-IPCAM Indoor Camera features a super clear 1080p HD and a built-in speaker and microphone. The SH-HD-IPCAM offers verification with HD video streams to CrowCloud™.

Users can view on demand or on alarm real-time H.264 video streaming for fast and accurate response to real events.



	SH-HD-IPCAM
Camera resolution	1080p
Video	H.264 encoding
Storage	Support 128GB micro SD card(max)
Field of view	110° diagonal wide–angle view
Night Vision	High–power IR LED
Audio	Built-in microphone and speaker
Wireless	802.11b/g/n/ 2.4GHz
Sensors	Ambient light, Temperature
Power supply	Power adapter input: 100-240V AC, 50/60Hz Power adapter output: 5V DC, 1A
Connectivity requirements	Wi-Fi internet connection (B/G/N)
Operating Temperature	-10° to 55°C indoor
Dimensions	83.5mm x 58mm x 94.1mm
Compliance	CE

### SH-4K-IPCAM 4K IP CAMERA with Face Recognition and AI

The SH-4K-IPCAM offers video surveillance and verification with high quality 4K video streams to CrowCloud™.

Users can view on demand or on alarm real-time H.265 and H.264 video streaming for fast and accurate response to real events.

The SH-4K-IPCAM supports video analytics and AI for fall detection, person/pet/vehicule identification face and emotion recognition.



	SH-4K-IPCAM
Camera sensor	Low-Power 8-Megapixel Sensor 4K color
Video	H.265 and H.264 encoders capable of up to 4Kp30 video Simultaneous multi-streams (5 different streams) Multi-exposure line-interleaved HDR Hardware lens distortion correction Electronic Image Stabilization (EIS) 3-Axis Electronic Image Stabilization (EIS)
Artificial Intelligence Video Analytics	Face recognition - up to 100 faces Intelligent motion detection Tampering / intrusion detection and people counting
Zoom	X12 digital zoom without image quality loss Dynamic region of interest (ROI) with 32 free-form regions
Field of view	140° diagonal wide-angle view
Night Vision	4 High–power IR LED 850 nm, 150° IR cut-off filter
Audio	High-quality speaker and microphone
Wireless	802.11a/b/g/n/ac (2.4GHz/5GHz) WiFi + Bluetooth Module
Sensors	Ambient light, Temperature
Power Supply	Power adapter input: 100-240V AC, 50/60Hz Power adapter output: 5V DC, 2A Power cable connector: USB Type-C
Connectivity requirements	Wi-Fi internet connection (AC/B/G/N)
Operating Temperature	-10° to 55°C indoor
Dimensions	70mm X 70mm X 55mm
Compliance	CE

# **Audio Verification**

## SH-AVM

Audio Verification Module

SH-AVM is an indoor audio verification module. Upon transmission of an alarm signal, the SH-AVM provides remotely controlled and full duplex functionality between a central station operator and the occupants of the premises. Receiving audio verification simultaneously with the alarm signal allows the CMS to prioritize and verify alarms before acting, making the SH-AVM the ideal solution to false dispatching and unverified alarm problems.

Up to 4 modules can easily be installed in any convenient location in your home.



Modulation Type	DECT ULE			
Event Transmission	Emergency Voice Call, Low Bat, Keep Alive (every 7 minutes – configurable)			
Activation Method	Push-Button for speed dial emergency call			
Range	500m open space			
Operating Voltage	5 Volts DC supplied from wall mount adaptor			
Battery	Rechargeable Polymer 3.7V 1000mAh			
Current Consumption	Talk Mode: 300mA Up to 3 hours talk time in battery mode Standby: 5mA Up to 1 week in battery mode			
LED Indicators	Yellow: Hang Up Green: Pair Status OK Speed dial Red: Pairing/HW problem			
Operating Temperature	-10°C to +50°C			
Dimensions	104mm x 104mm x 29mm			
Weight	150gr			
Compliance	CE, FCC Part 15, IC, ETL & ULE			



# **Alarm Detection**

Indoor PIR Motion Detectors

Outdoor PIR Motion Detector

Magnet & Shock Devices

Glass Break Detector

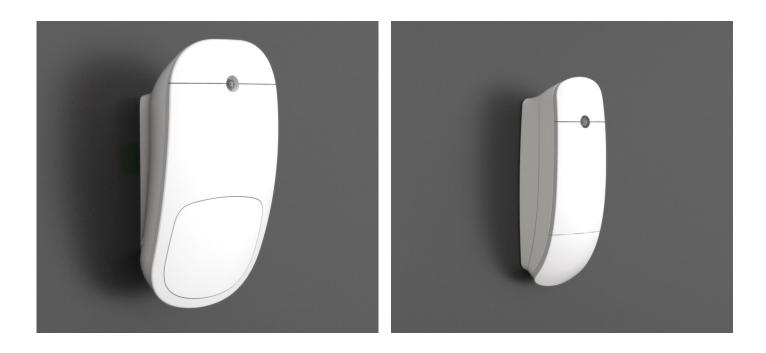


### SH-PIR & SH-PIR-CRT Mirror Optics Wireless PIR & Curtain PIR Detectors

SH-PIR is a fully supervised mirror optics two-way wireless detector featuring motion detection, tamper protection, low battery and supervision.

SH-CRT is a wireless detector featuring a solid curtain coverage of up to 8m length by 3m height. SH-CRT may be used for perimeter protection by setting up detection "curtains" walls or windows.

SH-PIR & SH-CRT can be configured Over-The-Air.



	SH-PIR	SH-PIR-CRT
Detection Method	Quad Pyro Element Sensor	Quad Pyro Element Sensor
Communication Protocol	Freewave2™ two-way ISM GFSK with 5 frequencies & LBT	Freewave2™ two-way ISM GFSK with 5 frequencies & LBT
Operating Frequencies	868MHz or 916MHz	868MHz or 916MHZ
Identification	Unique ID serial number – 24 bit	Unique ID serial number – 24 bit
Events Transmission	Alarm, Tamper, Supervision, Low Bat, Keep Alive.	Alarm, Tamper, Supervision, Low Battery
Supervision Time	7 min by default (configurable between 1 to 30 min)	7 min by default (programmable between 1 to 30 min)
Communication Range	500m open space	500m open space
Battery	3V Lithium CR123A	3V Lithium CR123A
Battery Life	Up to 5 Years	Up to 5 Years
Current Consumption	Average Current : 15uA Transmit current: ~55mA	Average Current : 15uA Transmit current: ~55mA
Tamper Switch	Front Cover and Wall Removal	Front Cover Removal & Back Tamper
Operating Temperature	-10°C to +50°C	-10°C to +50°C
Dimensions/ Weight	112mm x 58mm x 45mm / 120 gr.	108mm x 58mm x 42.5mm / 120 gr.
Compliance	EN50131 Security Grade 2 Class II	EN50131 Security Grade 2 Class II

### FW2-EDS3000 AM

#### Wireless Double PIR and Anti-Masking Outdoor Detector

FW2-EDS3000AM is a unique two-way wireless outdoor double motion detector with active Anti-Masking feature. This device is designed to protect the outdoor areas of your property and triggers an alarm before an intruder breaks in.



#### FW2-EDS3000 AM

Detection Method	Two Double Pyro and Antimasking
Communication Protocol	Freewave2™ two-way ISM GFSK with 5 frequencies & LBT
Operating Frequencies	868MHz or 916MHz
Events Transmission	Alarm, Anti-Mask, Tamper, Supervision, Low Bat
Supervision Time	7 min by default (configurable between 1 to 30 minutes)
Communication Range	500m open space
Battery	4 x Lithium battery 1.5V AA Energizer L91
Battery Life	Up to 10 years
Current Consumption	Average 60uA
Tamper Switch	Front Cover and Wall Removal
Transmit Power	~ 14dBm
Temperature Compensation	Yes
LED Indicator	LED is ON during Alarm and Trouble
Operation Temperature	-35°C ~ +55°C
IP Rating	IP 65
Dimensions / Weight	200mm x 86mm x 80mm / 500gr.
Compliance	EN50131 Security Grade 3 Class III

## SH-MAG and SH-MAG & SHOCK

Wireless Door/Window Magnet Shock Contact Devices

These devices provide perimeter protection for premises with early warning upon attempted intrusion.

SH-MAG & SHOCK device analyzes shocks while ignoring background vibrations.

They can be configured Over-The-Air and feature a 5 year battery life.



SH-MAG	SH-MAG & SHOCK
Magnetic Contact	Magnetic contact and Shock
Freewave2™ two-way ISM GFSK with 5 frequencies & LBT	Freewave2™ two-way ISM GFSK with 5 frequencies & LBT
868MHz or 916MHz	868MHz or 916MHz
Unique ID serial number – 24 bit	Unique ID serial number – 24 bit
Alarm, Tamper, Supervision, Low Bat, Keep Alive.	Alarm, Tamper, Supervision, Low Bat, Keep Alive.
7 min by default (configurable between 1 to 30 min)	7 min by default (configurable between 1 to 30 min)
55mA	55mA
2 Lithium batteries AAA 1.5V Type L92	1 Lithium batteries CR123
Up to 5 Years	Up to 5 Years
Average: 6uA	Average: 9uA
Front Cover and Wall	Front Cover and Wall
-10°C to +55°C	-10°C to +55°C
100mm x 26mm x 16mm / 50gr.	100mm x 26mm x 16mm / 50gr.
EN50131 Security Grade 2 Class II	EN50131 Security Grade 2 Class II
	Magnetic Contact         Freewave2™ two-way ISM         GFSK with 5 frequencies & LBT         868MHz or 916MHz         Unique ID serial number – 24 bit         Alarm, Tamper, Supervision, Low Bat, Keep Alive.         7 min by default (configurable between 1 to 30 min)         55mA         2 Lithium batteries AAA 1.5V Type L92         Up to 5 Years         Average: 6uA         Front Cover and Wall         -10°C to +55°C         100mm x 26mm x 16mm / 50gr.

## SH-GBD

#### Wireless Glass Break Detector

SH-GBD is an Omni-directional Wireless Glass Break Detector providing a detection coverage of 180°. It can be configured Over-The-Air.



	SH-GBD
Detection Method	Omni-directional Shock & Glass Break
Communication Protocol	Freewave2™ two-way ISM GFSK with 5 frequencies & LBT
Frequency	868MHz or 916MHz
Identification	Unique ID serial number – 24 bit
Events Transmission	Alarm, Tamper, Supervision, Low Bat.
Supervision Time	7 min by default (configurable)
Range in Open Space	500m
Coverage Area	Up to 6m - 180° radius
Battery	2 x Lithium batteries 1.5V AA Energizer L91
Battery Life	Up to 5 years
Current Consumption	Average 12uA
Transmission Current	~55mA
Tamper Switch	Back Tamper (Removal)
Operating Temperature	-10°C to +55°C
Dimensions / Weight	63mm x 63mm x 19.60mm / 120 gr.
Compliance	EN50131 Security Grade 2 Class II



# **Signalling Devices**

Indoor Sounder

Outdoor Sounder

### SH-SIRINT

#### Wireless Indoor Sounder

SH-SIRINT is a fully supervised wireless siren. Its slim and compact design blends into the decor and provides an alert to a potential danger. It also indicates entry and exit delays, trouble beeps and door chimes.

#### SH-SIRINT can be configured Over-The-Air.



	SH-SIRINT
Communication Protocol	Freewave2™ two-way ISM GFSK with 5 frequencies & LBT
Operating Frequencies	868MHz or 916MHz
Identification	Unique ID serial number – 24 bit
Events Transmission	Alarm, Tamper, Supervision, Low Bat.
Supervision Time	7 min by default
Transmission Range	500m open space
Alert Method	Internal Piezo and LED
Sound Level	85dB at 1 meter
Flash Light	White LED
Battery	2 x Lithium battery 1.5V AA Energizer L91
Battery Life	Up to 5 years
Current Consumption	Average Current : ~60uA Max Current: Alarm 750mA
Tamper Switch	Bracket Removal
Operating Temperature	-10°C to +55°C
Dimensions / Weight	93 mm x 93mm x 26mm / 80gr.
Compliance	EN50131 Security Grade 2 Class II

### FW2-NEPTUNE

#### Wireless Outdoor Sounder

FW2-Neptune is a wireless two-way self-powered outdoor siren. It features fully supervised communication highly reliable operation and optimal wireless performance, including visual and audio notifications.

#### FW2-Neptune can be configured Over-The-Air.



	FW2-NEPTUNE
Communication Protocol	Freewave2™ two-way ISM GFSK with 5 frequencies & LBT
Frequency Band	868MHz or 916MHZ
Identification	Unique ID serial number – 24 bit
Range	500m open space
Sound Pressure Level	105dB
Siren Tone	yelp
Frequency Range	2700 ± 500 Hz
Indications	Flash LED during transmission (Arm/Disarm) and Activation
Flash Light	Power LED (90 Lumens)
Current Consumption	Standby Average: 110uA, External power 9-12 VDC standby 3mA, Alarm 0.83A
Power Supply	9V-15V / 2A
Siren Alarm Period	2 min/15 min (programmable)
Arm/Disarm Indication	LED Flash : Arm-1 Disarm-3 LED Flash with Beeps : Arm-1 Disarm-3
Supervision	Sync signal every 1 min
Tamper Switch	Normally Closed
Battery	Battery pack Lithium 3.6V / 13Ah
Battery Life	Up to 5 years (Based on 2 min Piezo operation/month)
Low Battery Level / Indication	3.1V / LED Flash @ Arm/Disarm
LED Indicator	LED is ON during ALARM and TROUBLE
Operation Temp	-40°C to +70°C
IP Rating	IP 55
Dimensions / Weight	310 mm x 205 mm x 75 mm / 1.2 Kg (Without Battery)
Compliance	EN50131 Grade 2 Class IV



# **Safety Devices**

Smoke Detectors

Flood Detector

Air Quality Sensor

Temperature Sensor

Humidity, Temperature & Air Pressure Device

## FW2-SMK & SH-SMK

#### Wireless Smoke Detectors

Crow's Smoke detectors are built with an advanced optical sensing photoelectric chamber and offer 10 years of battery life.

FW2-SMK & SH-SMK are cutting edge in fire safety. They sound an on-board siren, communicate through apps, and deliver alerts to your phone or other mobile device if an alarm occurs.



	FW2-SMK	SH-SMK
Detection Method	Photoelectric Smoke Detector	Photoelectric Smoke Detector
Communication Protocol	Freewave2™ two-way ISM GFSK with 5 frequencies & LBT	Freewave2™ two-way ISM GFSK with 5 frequencies & LBT
Frequency Band	868MHz or 916MHz	868MHz or 916MHz
Identification	Unique ID serial number – 24 bit	Unique ID serial number – 24 bit
Event Transmission	Alarm, Tamper, Supervision, Low Bat Supervision	Alarm, Tamper, Supervision, Low Bat Supervision
LED Indications	LED during alarm	LED during alarm
Tamper Switch	Bracket Removal	Bracket Removal
Communication Range	500m in open space	500m in open space
Detection Sensitivity	2.3+1.2%/ft	2.3+1.2%/ft
Alarm Sound Level	85 dB at 3 m Audible Warning Built-in horn	85 dB at 3 m Audible Warning Built-in horn
Battery	Battery pack Lithium 3V/3500mAh	2x Lithium battery 1.5V AA Energizer L91
Battery Life	10 years	10 years
Current Consumption	Average : 15uA	Average : 15uA
Operating Temperature	-10°C to +55°C	-10°C to +55°C
Dimensions / Weight	124.3mm x 30mm / 200gr	124.3mm x 30mm / 200gr
Compliance	EN14604	EN14604

#### SH-FLOOD Wireless Flood Detector

SH-FLOOD is a two way wireless Flood Detector designed to detect water leaks in kitchens, bathrooms warehouses or yachts. Installation is easy and provides an early warning of developing leaks.



	SH-FLOOD
Detection Method	External golden contacts pins device
Communication Protocol	Freewave2™ two-way ISM GFSK with 5 frequencies & LBT
Frequency Band	868MHz or 916MHz
Identification	Unique ID serial number – 24 bit
Event Transmission	Alarm, Tamper, Supervision, Low Batt Supervision
LED Indications	Red LED during alarm
Tamper Switch	Front Cover Removal
Supervision Time	7 min by default (programmable between 1 to 30 min)
Communication Range	500m open space
Current Consumption	Average: 7uA
Transmission Current	55mA
Battery	2x Lithium battery 1.5V AA Energizer L91
Battery Life	Up to 5 years
Operating Temperature	-10°C to +55°C
Dimensions / Weight	63mm x 23.3m x 63mm / 100 gr
Compliance	CE

### **SH-AQ** Air Quality Sensor

SH-AQ enables you to take control of home air quality.

Indoor air quality is affected by smoke and volatile organic chemicals (VOCs).

Home building materials and furniture may also release these VOCs.

In the process of trying to secure your home by locking doors and keeping the windows shut you may inadvertently seal in carbon dioxide. Furnaces and other wood-fueled heaters also produce carbon monoxide while high humidity contributes to poor air quality.



	SH-AQ
Operation Method	Air Quality Sensor
Communication Protocol	Freewave2™ two-way ISM GFSK with 5 frequencies & LBT
Frequency Band	868MHz or 916MHz
Identification	Unique ID serial number – 24 bit
Events Transmission	Air Quality Alert, Tamper protection, Low Battery
Supervision Time	7 min by default (configurable)
Tamper Switch	Front cover removal & Back tamper
Range	500m open space
Battery	2x Lithium battery 1.5V AA Energizer L91
Battery Life	up to 3 Years
Current Consumption	Average 110uA
Transmission Current	~55mA
Operating Temperature	-10°C to +55°C – Accuracy ±1°C
Relative Humidity Range	0 to 100% - Accuracy ±9 % RH (±2 % Hysteresis)
Pressure Range	300 - 1100 hPa – Accuracy ±1.0 hPa
Dimensions / Weight	63 mm x 63 mm x 19.60 mm / 40 gr.
Compliance	CE

## SH-Temp

#### DECT ULE Temperature Sensor

The Temperature Sensor is a Do-It-Yourself fully supervised low-current Temperature sensor.

The Temperature Sensor is part of the DECT ULE wireless line of devices embedding an advanced DECT ULE RF transceiver.

Temperature sensor on one side and a cable with suitable connector on the other side allow the detection of temperature in two locations using a single device. The Temperature Sensor uses smart message control verifying all messages are successfully transmitted to the base station.



	Temperature Sensor
Modulation Type	DECT ULE
Event Transmission	Alarm, Tamper, Low Bat, Keep Alive (every 7 minutes – configurable)
Detection Method	Two Temperature sensors – Internal & External (optional).
Range	500 meters (Open Space)
Battery	Lithium. 3V Type: CR123A, Size: 2/3A
Battery life expectancy	Up to 4 years on regular use
Current Consumption	Standby: 4μA ,Average: 19μA
Transmit power	Tx Power at +22dBm, typical and Rx Sensitivity at -97dBm, typical
Tamper Switch	Front Cover Removal & Back Tamper
LED Indicators	Red LED: ON during alarm Green LED: Pair Status
Operating Temperature	-10°C - +50°C (14°F- 122°F)
Dimensions / Weight	97 mm x 22 mm x 21 mm / 56 gr.
Compliance	CE, FCC Part 15, IC, ETL & ULE



## **CR-DU-HUM** DECT ULE Humidity, Temperature & Air Pressure Device

CR-DU-HUM is the ideal solution for monitoring humidity, temperature and air pressure conditions of your home wine cellar and more.

Collected data is displayed on the devices built-in LCD display and automatically pushed to the cloud which allows it to be streamed to web browsers and mobile devices and to set configure alert ranges.



	SH-DU-HUM
Modulation Type	DECT ULE
Event Transmission	Alarm, Tamper, Low Bat, Keep Alive (every 7 minutes – configurable)
Detection Method	Humidity, Temperature & Air Pressure Sensor
Range	500m open space
Battery	Lithium 3V, CR123A
Battery Life	Up to 3 Years
Current Consumption	Average: 30uA
LED Indicators	Red LED: ON – Pairing/HW problem Green LED: Pair Status OK
Operating Temperature	0°C to 45°C
Dimensions / Weight	95mm x 50mm x 34mm / 150 gr
Compliance	CE, FCC Part 15, IC, ETL & ULE





# **Home Comfort**

Smart Plug

Doorbell

### **SH-ACP** Wireless Smart Plug

SH-ACP can be easily plugged into a socket to control any appliance manually or remotely via Crow's Apps.



#### SH-ACP

Operation Method	Relay Switch OPEN / CLOSE
Communication Protocol	Freewave2™ two-way ISM GFSK with 5 frequencies & LBT
Frequency	868MHz or 916MHz
Identification	Unique ID serial number – 24 bit
Events Transmission	ON/OFF Status, Supervision
Supervision Time	7 min by default (configurable between 1 to 30 minutes)
Communication Range	150m in open space
Power Supply	Powered directly from the mains
Max Switched Power	3200W
Current Consumption	Standby Current: 30mA from mains
Operating Temp	-10°C to +55°C
Dimensions / Weight	100mm x 50mm x 75mm / 100 gr.
Compliance	CE
Standard	Еигоре Туре Е

### SH-DB Doorbell

#### Audio Security Burglar Preventing Device

Crow's SH-DB is a smart fully wireless doorbell burglar preventing device with two way audio DECT ULE. Audio is routed over GSM from the device to the smartphone for audio verification. Smart recorded messages enable to trigger a discussion while the panel calls the user who is not at home or not willing or able to answer.

When used with Crow's cameras, day and night high definition images will be sent for video verification.

SH-DB is designed to watch your doorstep anytime while keeping snapshot history.

It operates outdoors without Wi-Fi or electricity with a 24-hour battery backup.



#### SH-DB Doorbell

Power supply	6-36 VDC supply, 500Ma or, 8~24 VAC
Back Up	24h Lithium ion rechargeable battery
IP Rating	IP65
Backup Battery	Battery pack Rechargeable Li-On 3.7V/250mAh
Dimensions / Weight	112mm x 39mm x 22mm / 100gr
Compliance	CE



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