CARE2

RADIAL WIRED

EMERGENCY VOICE COMMUNICATION

Manufacturing EVC systems since 2001

CARE2 is a radial wired emergency voice communication system built to the high standard you expect from Baldwin Boxall. It is stylish, versatile and easy to use and offers an alternative to our well-established loop-wired Omnicare range.

FEATURES:

- CARE2 is an all-in-one Emergency Voice Communication (EVC) system.

- Fully monitored and battery-backed (24 hours quiescent and three hours functional).

- Fully compliant to BS5839-9:2011. Assists companies with compliance to BS9999:2008.

- Remote units are wired in a radial (star) configuration using two core (fire resisting enhanced/non-enhanced) cable.

- Fully networkable. Networked panels are wired in a loop configuration using 2 x two core (fire resisting enhanced) cable.

- In the event of a break in the network loop, the system will continue to function.

- All outstations are powered from the line, including the roaming telephone enclosure and disabled toilet alarms.

- Optional link to fire detection system prevents hoax disabled refuge calls (C2CFPE required). Firefighter, roaming telephones and toilet alarms remain active.

- Speech steered; disabled refuge outstations.

- Full duplex speech; firefighter and emergency/steward telephones.

- Any combination of the following outstations can be installed on a single system:
  - Disabled refuge (Type B outstations).
  - Firefighter telephones (Type A outstations).
  - Steward (emergency) telephones (Type A outstations).
  - Roaming telephones.
  - Disabled toilet alarms.

BENEFITS OF CARE2:

- Stylish, versatile and simple to navigate and control.

- Suitable for small or large systems - fully networkable.

- Monitored roaming telephone handsets - enables use with confidence.

- System configuration via SD card, front panel or PC connection.

- Facilitates clear communication during an emergency event.

- Ideal for retro-fitting old star-wired systems.

- Quality built, robust system.

- Activity/fault log.

- Outstations, including toilet alarms, powered directly from the line - no local power needed..

- Any combination of outstation on one system.

BALDWIN BOXALL   A BRITISH MANUFACTURER

Each panel is supplied as a 4-way unit as standard. Simply increase to 8, 12 or 16-way by fitting C2CEK4 line cards.

Integral batteries enable continuation of system use during mains power failure (24 hours in standby and three hours operational).

CONTROL / SLAVE PANEL:

- Unique design and easy to operate using the rotary encoder and clear LCD screen.

- The rugged red handset (with hearing aid compatible earpiece) is mounted in a lockable compartment.

- System configuration is stored on an SD card and can be modified either with a PC (via Ethernet or directly onto the SD card) or without (via the encoder and display).

- Includes a fault relay for indicator at the fire panel.

- The system can be connected to a local fire panel using a C2CFPE interface module.

- Two of these panels can be installed on a networked system (fit C2CN cards). One panel will act as a 'slave' unit. The 'slave' unit can be activated as the 'master' if required (typically during an emergency).

- Two way communication between the master and slave panel is initiated by the master.

REMOTE LAMP/BUZZER:

- Provides a visible and audible signal of a call on the CARE2 system. (The control panel sounder must be enabled, not silenced.)

- Uses the output on either a C2CN or C2FPE.

- Has an adjustable delay of 3-200 seconds.

NETWORK EXPANSION PANEL (NEP):

- Facilitates expansion of the CARE2 system.

- Fit up to 15 NEPs on a network (or fourteen if installing two 'control' panels), enabling systems of 256 outstations. (If you have a requirement for a larger system, please contact our sales department to discuss.)

- The NEP is supplied as a 4-way unit as standard. Simply increase to 8, 12 or 16-way by fitting C2CEK4 line cards. (Each NEP is fitted with a C2CN card).

- For initial system set-up and local testing (prior to connection to the network) a 'roaming telephone' can be temporarily connected to an internal socket.

- The status of local outstations can be viewed by using the rotary encoder and LCD screen.

EXPANSION CARDS & MODULES:

4-way line card (C2CEK4):

- Each module enables the addition of four outstations.

- Add these modules to the control panel(s) and/or NEPs as required.

- Up to three modules can be added per panel/NEP.

Network card (C2CN) - includes fire panel interface & Ethernet connection ability:

- Add one to each control panel for including on a networked system.

Fire panel interface card (C2CFPE) - includes Ethernet connection ability:

- Optional module which fits in the control panel (not required if a C2CN has been fitted).

- Use to keep disabled refuge outstations in 'standby' mode until activated by the fire panel.

- Add for connection to remote lamp/buzzer (BVOCCA).

PRODUCT CODES	BLACK	STAINLESS STEEL
4-way control panel	C2CB4	C2CS4
4-way NEP	C2CBNEP	C2CSNEP
4-way line card	C2CEK4	
Flush mount bezel	C2CBZ	C2CSZ
Fire panel interface	C2CFPE	
Network exp. card	C2CN	
Spare key	KEYBVE	
Remote lamp buzzer	BVOCCA	

... all outstations powered from the line ... no local power required ... up to two toilet alarms per line

DISABLED REFUGE REMOTE UNIT:

- Provides two-way communication between building management and person(s) occupying a 'Refuge Area' during an emergency evacuation - typically a fire.

- User simply presses the button to initiate call (occupy area). Further communication is hands free at the refuge point or by the user at the control panel.

- Type B outstation.

- Calls are reset at the control panel when the refuge area occupant has been evacuated to safety.

- The unit has an output to feed an external induction loop amplifier.

- Disabled refuge outstations on the system are permanently 'active'. As an option (by fitting a C2CFPE or C2CN to the control panel) they can be set to 'standby' mode until activated by the fire panel.

IP66 RATED ENCLOSURE:

- Enables mounting of refuge remote in external areas, such as car parks, balconies, etc.

- Green, surface mount enclosure.

- Takes one C2RRG remote unit.

PLASTERBOARD BACK BOX:

- Enables 'first fix' in plasterboard for the disabled refuge remote.

- Green or stainless steel options (bezel colour).

DISABLED TOILET ALARM:

- The 3-part toilet alarm is connected directly to the CARE2 control panel (or NEP).

- Powered from the line (does not require local power).

- Fully compliant to BS8300:2009.

- Up to two toilet alarm kits can be connected to one line (will show as one point on the panel).

- Each DTAKIT comprises:
  - Ceiling mounted pull switch (with two 'G' pulls).
  - Reset button with LED and (optional) sounder.
  - Over-door triangular lens with integral sounder.

- Caller reassurance facility (the sounder pulses faster when the call is accepted at the panel).

> BS8300:2009 requires that all new disabled toilets are fitted with an emergency toilet alarm.

NB: DTAKITs cannot be connected to CARE2 systems purchased before Sept 2012.
DTAKIT parts are different to those supplied in the BVOCDTA and are, therefore, not compatible.

DISABLED REFUGE OVERRIDE SWITCH:

- Disabled refuge outstations on an OmniCare system are typically in 'standby' mode until activated by the fire alarm panel. (If preferred, they can be set to be permanently 'live'.)

- A system in standby mode will need to be activated occasionally, such as for routine testing. An override switch (BVCRBG) can be used for this purpose.

DISABLED REFUGE	GREEN	STAINLESS STEEL*
Refuge remote	C2RRG	C2RRS
Flush mount bezel	BVCRMGRN	BVCRMSS
Plasterboard backbox	C2RRGPB	C2RRSPB
IP66 rated enclosure	C2RRBIP	
DRS override switch	BVCRBG	

TOILET ALARM	WHITE	STAINLESS STEEL
Toilet alarm kit (3-parts)	DTAKIT	DTASKIT
Ceiling pull	DTACP	DTASCP
Over-door light	DTAODL	DTASODL
Reset point	DTARP	DTASRP

> **Refuge Area:**
>
> Temporary waiting area of relative safety.
>
> Should be protected from a fire for a period of time sufficient to enable the evacuation sequence to be completed.
>
> Commonly located within fire protected stairwells.
>
> Can be a protected lobby, protected corridor or protected room. Can also be a flat roof, balcony or similar space sufficiently protected or remote, with its own means of escape.
>
> Should be accessible for a person in a wheelchair.
>
> As a minimum, should be 900 mm x 1400 mm.

* Features a stainless steel front panel with a grey powder coat back box.

... rugged red handset with T-coil throughout ... roaming telephones are monitored in the enclosure ...

FIRE TELEPHONE:

- Telephone handset in a metal enclosure. Used by fire officers/building control during an emergency, such as a fire.

- Assists with the efficient evacuation of a building.

- Robust red handset with hearing aid compatible earpiece (T-coil).

- Type A outstation as defined in BS5839-9:2011.

- Robust handset in heavy duty enclosure.

- Provides clear, full duplex, two-way communication with the control panel.

- Push door or slot lock versions available.

- Conference facility for fire and roaming telephones via control panel (recommended maximum of five including the control panel).

- Calls are initiated by simply opening the door.

FIRE TELEPHONE	RED	STAINLESS STEEL
Firefighter telephone - push door	C2FTRP	C2FTSP
Firefighter telephone - slot lock door	C2FTRL	C2FTSL
Flush mount bezel	C2FTRZ	C2FTSZ

STEWARD / EMERGENCY TELEPHONE:

- Designed for sports venues and stadia, the steward telephone has the same facilities as the fire telephone.

- The distance between outstations in sports venues should be no greater than 60m (BS5839-9:2011 "no-one should have to travel more that 30m to reach an outstation").

STEWARD TELEPHONE	PUSH DOOR	LOCK DOOR
Emergency telephone	C2ETGP	C2ETGL
Flush mount bezel	C2ETGZ	

> Roaming telephones are not covered by BS5839-9 and, as such, not recommended for installation in the UK.

ROAMING TELEPHONE:

- Robust red handset with hearing aid compatible earpiece.

- Any number of jack sockets can be daisy chained (up to 500m. EOL resistor required in end unit). (One handset operational per line at any one time.)

- The enclosure features a lockable glass door and stores up to six handsets (order separately).

- Handsets in the enclosure are monitored at all times (green reassurance LEDs).

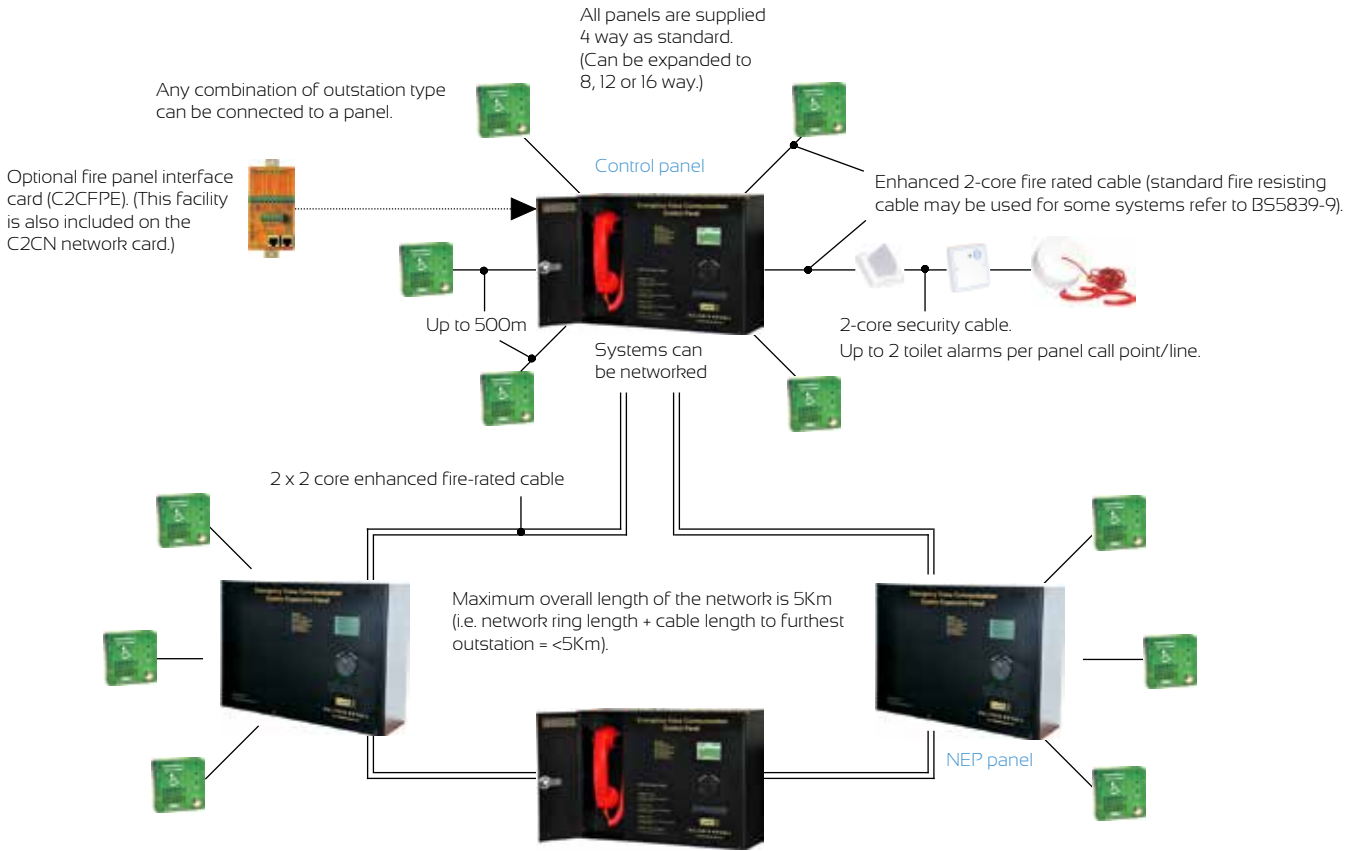- Jack sockets are flush mounting (back box required).

TYPICAL ROAMING TELEPHONE SYSTEM:
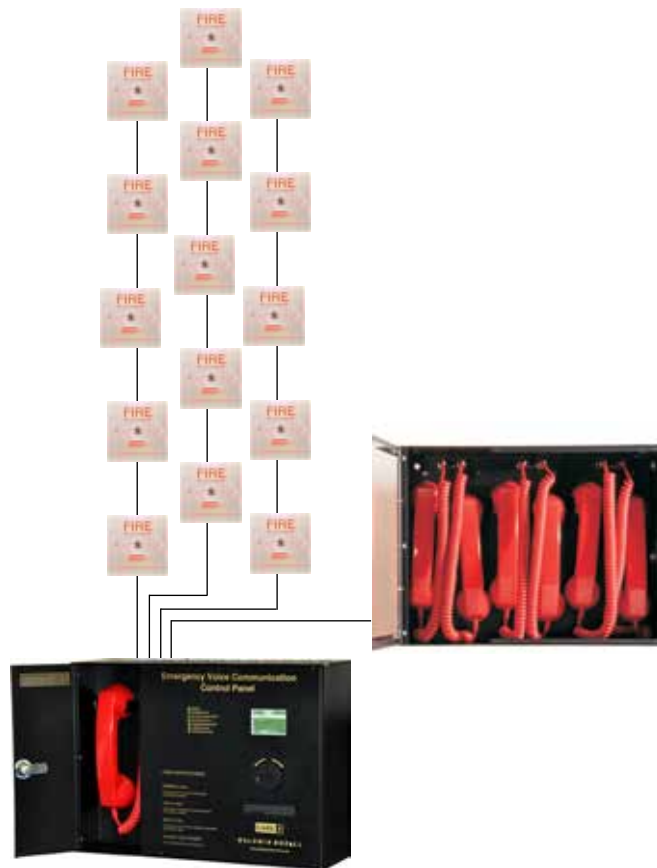
PRODUCT CODES		
Roaming telephone handset		C2RTH
Roaming telephone jack socket (American)		C2RTJA
Roaming telephone jack socket (UK)		C2RTJUK
	BLACK	STAINLESS STEEL
Roaming telephone enclosure	C2RTEB	C2RTES
Flush mount bezel	C2RTEBZ	C2RTESZ
Spare key		KEYBVE

CARE 2

... system configuration stored on SD ... any combination of outstation on a panel ... outstation choice ...

BUILDING YOUR SYSTEM:

Any combination of outstation type can be connected to a panel.

All panels are supplied 4 way as standard. (Can be expanded to 8, 12 or 16 way.)

Optional fire panel interface card (C2CFPE). (This facility is also included on the C2CN network card.)

Control panel

Enhanced 2-core fire rated cable (standard fire resisting cable may be used for some systems refer to BS5839-9).

Up to 500m

Systems can be networked

2-core security cable.
Up to 2 toilet alarms per panel call point/line.

2 x 2 core enhanced fire-rated cable

Maximum overall length of the network is 5Km (i.e. network ring length + cable length to furthest outstation = <5Km).

NEP panel

Up to 16 panels can be placed on the network (2 of these can be control panels, one of which will act as a slave unless activated as the master during an emergency).

Add C2CN card to a control panel when using on a networked system (already included in NEP panels).

One 4-way (C2CEK4) line card is supplied with each panel.

Add up to three further line cards to each panel.

If a second control panel does not require outstations to be fitted, the line card can be removed and used in another panel.

... two-core cable throughout ... technical backup ... integral backup batteries included with each panel ...

SYSTEM INFORMATION & CABLING

GENERAL INFORMATION:

- There are three main components - control panel, network expansion panels (NEP) and the remote units.

- Remote units are wired in a radial (star-wired) configuration. Control/NEP panels are loop wired.

- Two control panels can be installed on a networked system (the second one will serve as a 'slave' unit unless activated as the 'master' during an emergency).

- Any combination of remote units can be connected to a control/NEP panel.

- Any number of jack sockets (for the roaming telephone) can be daisy chained (up to 500m; EOL resistor required in end unit). One handset will be operational per line at any one time.

- Outstations and control/NEP panels can be surface mounted or flush mounted with optional bezel. Back boxes are required for the roaming telephone jack sockets, toilet alarm reset and overdoor light.

- The control console is typically wall mounted in a central control room.

- Remote units are wall mounted in locations such as refuge areas, stairwells, fallback positions, corridors and other 'gathering' points, at a height easily reached by users.

- All outstations are powered from the line, including the disabled toilet alarms and roaming telephone handset enclosure.

- System configuration is stored on an SD card and can be modified either with a PC (via Ethernet or directly onto the SD card) or without (via the encoder and display).

- Up to two disabled toilet alarms (Baldwin Boxall DTAKITs) can be connected to one line. (Or one toilet alarm with two ceiling pulls.)

CABLING:

- Disabled refuge, fire fighter and roaming telephones - two core, fire resisting, enhanced (or non-enhanced may be considered for non fire fighting see 'BS5839-9' right).

- Disabled toilet alarms - two core, fire resisting to first DTAKIT overdoor light. Then two core security.

- Network loop - 2 x two core fire resisting cable (enhanced recommended).

- Up to 500m cable run between each remote unit and the control/NEP panel.

- Up to 500m cable run between each control/NEP panel.

- Maximum overall length of the network is 5Km (i.e. network ring length + cable length to the furthest outstation = <5Km).

- BS5839-9:2011: standard fire resisting cables could be considered suitable for:

  - EVC systems for use in disabled refuges but not for fire-fighting in (a) sprinklered buildings; (b) unsprinklered buildings less than 30m in height, provided that evacuation takes place in three or fewer phases.

  - Underground sections of cabling at sports and similar venues.
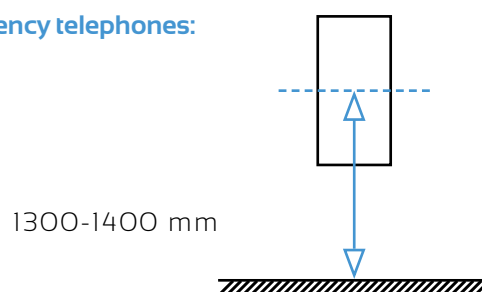
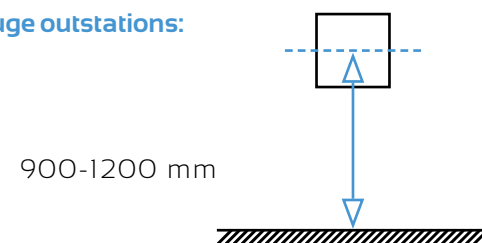## MOUNTING POSITIONS
BS5839-9:2011 recommends:

Control panel:

Emergency Voice Communication Control Panel
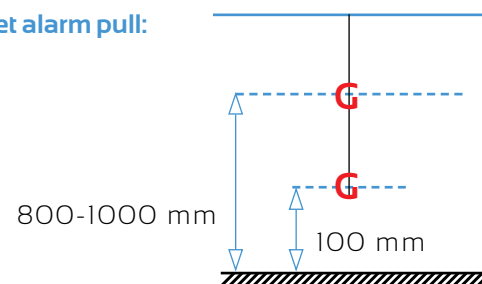
1400-1500 mm
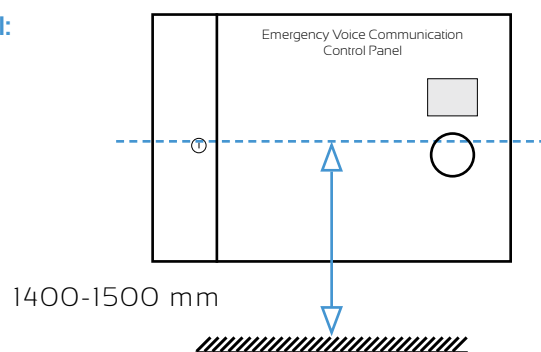
Fire & emergency telephones:
Type A

1300-1400 mm

Disabled refuge outstations:
Type B

900-1200 mm

Disabled toilet alarm pull:

800-1000 mm

100 mm

ANSWERS TO SOME FREQUENTLY ASKED QUESTIONS:

Which British Standards do I need to refer to?

- BS9999:2008 - for refuge area definitions and specifications.

- BS5839-9:2011 - for design, installation, commissioning and maintenance guidelines.

- BS8300:2009 - for disabled toilet alarm code of practice on accessible buildings.

Is BS5839-9:2011 statutory?

- BS5839-9 is a guideline, however, Baldwin Boxall strongly recommends that this is followed carefully due to the fact that it is a life safety system.

What is the difference between Type A and Type B remotes?

- Type A - an outstation using a telephone handset for communication. Fire telephone / steward telephone.

- Type B - an outstation using an intercom and normally mounted on the wall. Disabled refuge remote.

When do I need a refuge system?

- A refuge system provides two-way voice communication between a refuge area and building control.

- EVC systems are generally needed in the following situations:

  - Buildings/venues where there are people who may have difficulty self-evacuating in an emergency.

  - Buildings with phased evacuation.

  - Buildings without phased evacuation but where size/type/shape necessitates communication between locations and to facilitate evacuation/firefighting.

  - Sports venues, or similar, where stewards may need to control an evacuation.

To help you assess the need for refuge areas, refer to our 'When do I need a REFUGE AREA?' document.

Does an EVC system have to be linked to the fire alarm system?

- No, although OmniCare and CARE2 does offer this option to prevent hoax DRS calls.

What are the intended uses of an EVC system?

- Use by management of the building or complex, for its initial evacuation.

- Use by the fire service during an evacuation.

- Use by the fire service after an evacuation.

- Use by disabled people.

What cable types should be used for an EVC system?

- BS5839-9:2011 should be referred to for full details, however:

- ENHANCED fire rated MUST be used for FIRE FIGHTING systems.

- STANDARD fire resisting cables could be considered suitable for:

  - EVC systems for use in disabled refuges but not for fire fighting in (a) sprinklered buildings; (b) unsprinklered buildings less than 30m in height, provided that evacuation takes place in three or fewer places.

  - Underground sections of cabling at sports and similar venues.

"Emergency voice communication (EVC) systems allow firefighters and others to communicate with one another during emergency situations in and around buildings and at sports and similar venues, such as entertainment centres. They also allow communication with disabled persons.

"Emergency voice communication systems, are used in connection with life safety and need, therefore, to be subject to high standards of design, manufacture, installation, commissioning and maintenance, similar to those covering fire detection and fire alarm systems and voice alarm systems."

BS5839-9:2011

CARE2 SYSTEM SPECIFICATION:

	Control panel (& network expansion panel)	Disabled Refuge	Firefighter Telephone	Emergency/ Steward Telephone	Roaming Telephone Jack Socket	Roaming Telephone Enclosure	Disabled Toilet Alarm
Product codes	C2CB4 / C2CS4 C2CBNEP/C2CSNEP	C2RRG C2RRS	C2FTRP/L C2FTSP/L	C2ETGP C2ETGL	C2RTJUK C2RTJA	C2RTEB C2RTES	DTAKIT DTASKIT
Power supply	200-230V AC 50-60Hz	20-30V DC self powered from line					
Power consumption	75VA max						
Humidity range	95% non-condensing						
Temperature range	-10°C to +40°C						
Indicators include	4 x green LEDs: Power, call, RR active, healthy. 3 x yellow LEDs: Processor restart, common fault, processor fault.	1 x red LED: 'status' 1 x green LED: 'system ok'	1 x red LED: status indicator	1 x green LED: status indicator	-	1 x green LED: status indicator	Triangular lens on over-door light/ sounder. 1 x red LED on reset.
Finish	Black or stainless steel	Green or stainless steel	Red or stainless steel	Green	Stainless steel	Black or stainless steel	White or stainless steel
Dimensions mm WxHxD	430 x 310 x 130	134 x 134 x 44	130 x 330 x 75	130 x 330 x 75	UK: 85 x 85 A: 4½"x 2¾"	430 x 310 x 130	max: 85 x 85
Bezel dimensions mm W x H	470 x 350	154 x 154	170 x 370	170 x 370	-	-	-
Bezel cut out mm	440 x 320	136 x 136	136 x 336	136 x 336	-	-	-
Back box requirements W x H x D	-	-	-	-	UK (mm): 85x85x35 A: 4"x 2⅛"x2⅞"	-	single gang (n/a white ceiling pull)
Knockouts/cable entry points:							
Top of unit	23 x 20 mm	4 x 20 mm	1 x 20 mm	1 x 20 mm	-	23 x 20 mm	-
Bottom of unit	-	4 x 25 mm	-	-	-	-	-
Mounting height	1.4-1.5 m	0.9 m-1.2 m	1.3-1.4 m	1.3-1.4 m	-	-	various

Please Note: Stainless steel products are not intended for installation in humid areas.

BALDWIN BOX▲LL

BALDWIN BOX▲LL   LEADING THE WAY TO SAFETY