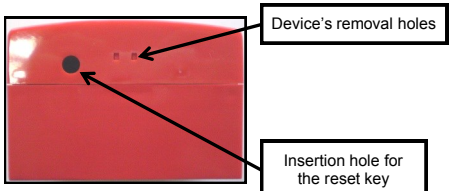
SGCP100-IS

INTRINSICALLY SAFE WIRELESS CALL POINT

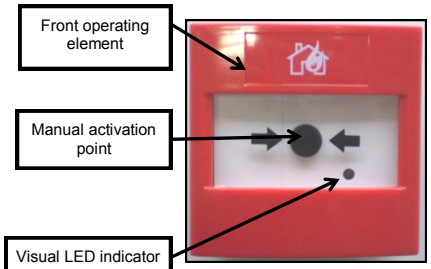
Baseefa16ATEX0111X
IECEx BAS 16.0050X

INTRODUCTION TO THE INTRINSICALLY SAFE FIRE DETECTION DEVICE

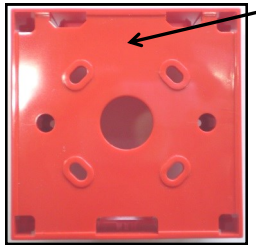
This wireless manual call point has been certified by Baseefa and has been awarded the ATEX Classification **Ⓔx II 1 G ; Ex ia IIC T5 Ga –10˚C ≤ Ta ≤ +55˚C** making it suitable for Category 1, 2 or 3 hazardous atmospheres with a maximum ambient temperature up to 55˚C.
The product has been assessed and certified for ATEX & IECEx requirements for hazardous applications according to the following standards:
IEC 60079-0:2011 / EN 60079-0:2012+A11:2013
IEC 60079-11:2011 / EN 60079-11:2012
IEC 60079-28:2015 / EN 60079-28:2015
It is recommended that installation only be carried out by qualified personnel according to hazardous area safe working practice and in conformity to the terms of the product certification. Note that the Translator Interface to which this device will be linked does not form part of the ATEX/IECEx certified system and must be sited in the safe area which is not subject to hazardous conditions.



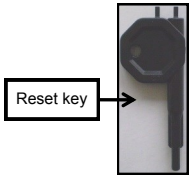
Picture 1



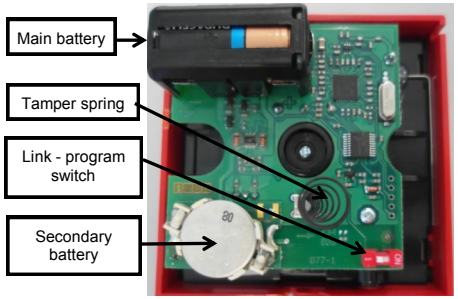
Picture 2



Picture 3



Picture 5



Picture 4

TECHNICAL SPECIFICATIONS ***

Communication range with the wire to wireless translator or wireless expander	200 m (in open space) *
Operating frequency	868 MHz
Modulation type	FSK
Operating frequency channels	7
Radiated power	5 dBm (3 mW)
Main battery type	CR123A (3V & 1.2 Ah) - Duracell Ultra
Secondary battery type	CR2032A (3V & 250 mAh) - Maxell
Approved battery voltage range	2.75V - 3.20V
Main battery lifespan	3 years **
Secondary battery lifespan	2 months **
Dimensions	86 mm x 86 mm x 59 mm
Weight	186 grams (without batteries)
Operating temperature range	from –10 °C to +55 °C

Table 1

*** Ideal operating range: may vary according to environmental conditions.**

**** When a low battery condition is indicated, both main and secondary batteries must be changed together.**

**** If it is assumed that the device is set with a message transmission period of 60 seconds.**

***** Check latest version of document TDS-SCP1IS-0002 for further data, obtainable from your supplier.**

GENERAL DESCRIPTION

The intrinsically safe wireless call point is a wall mounted device that, when activated, initiates an alarm on the fire security system. Its construction makes it suitable for installation in hazardous environment according to ATEX DIRECTIVE 2014/34/EU.

CALL POINT'S VISUAL LED INDICATOR

The wireless call point is equipped with a bi-colour LED (red / green) that provides visual indication for functional conditions and battery levels as indicated in table 2. The indicator is positioned near the lower right corner of the device's operating element (see picture 2).

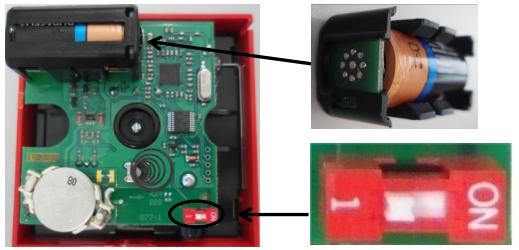
Call point status	Green LED	Red LED
Power up Device not linked Link - program switch on "ON"	0.5 second green, then blinking red until power up is completed	
Programming and linking to the system	Blinking until linking and programming is completed	-
Power up Device linked Link - program switch on "1"	Blinking until power up is completed	-
Normal condition	-	-
Alarm activation	-	1 second on and 1 second off
Main battery fault	-	0.5 second on and 10 seconds off
Secondary battery fault	0.5 second on and 10 seconds off	-
Both batteries fault	0.5 second green, 5 seconds off, 0.5 second red	
Not communicating with the translator or the expander	0.1 second green and red (amber) and 1 second off	

Table 2

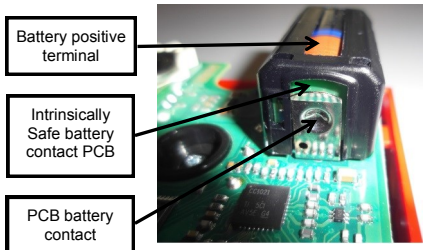
DEVICE'S POWER SUPPLY, PROGRAMMING AND LINKING

The linking operation will configure the call point onto the wireless system controlled by a Translator interface.
The linking method described below does not change and applies for operation with either the wire to wireless translator interface or the Wirelex computer configuration program.

1) Move the link-program switch to position ON (picture 6).



Picture 6 - primary battery, secondary battery, primary battery housing and link - program switch



Picture 7 - correct battery insertion

2) Insert the secondary battery into its housing (picture 6).

3) Insert the primary battery into its housing then into the device terminals of the PCB making sure that these remain on the outer part of the intrinsically safe battery contact as indicated in picture 7; the visual LED indicator will switch on accordingly (see "Power up" in table 2 and picture 7).

Ensure that the polarity is correct for both batteries!!!

4) When the wire to wireless translator (locally or remotely via Wirelex) is searching for a new device to link to, move the link-program switch to position 1 in order to initiate communication with the translator or the expander module; the visual LED indicator will switch on accordingly (see "Programming and linking to the system" in table 2).

If the linking and programming operation fails, check if mistakes were made with the wire to wireless translator or the Wirelex link process, remove the batteries, change over repeatedly the ON / 1 switch a few times in order to discharge the internal capacitor and then start again from point 1 re-performing the linking procedure.

IMPORTANT NOTES!

Programming is considered to be completed successfully only if there is an indication of programming success on the device and on the wire to wireless translator module or on the window of the Wirelex program.

Do not fit the front operating element onto the back box, so to press the tamper spring, before programming and linking to the wireless system is totally completed: communication problems may rise successively.
Generally speaking: make sure, during the programming-linking phase, that the tamper spring is not pressed at all!
See the TAMPER DETECTION SPRING paragraph for more information on the tamper spring.

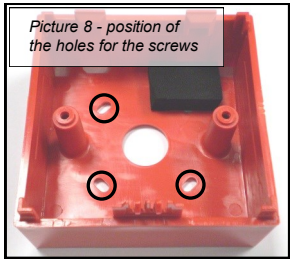
COMMUNICATION QUALITY ASSESSMENT

It is possible to assess the radio communication quality of the wireless call point with the translator or expander module by using a test feature built into the device. After successful programming-linking operation, by changing the link-program switch to the ON position the device's LED indicator will start blinking according to table 3.
Always remember to return the switch to the 1 position after the assessment operation: the device will NOT function correctly whilst the switch is set on the ON position.

Communication quality	Assessment	Device's indication
No connection	Fail	Two red blinks
Link margin is less than 10 dB	Poor	One red blink
Robust communication with link margin from 10 dB to 20 dB	Good	One green blink
Robust communication with link margin over 20 dB	Excellent	Two green blinks

Table 3

WIRELESS CALL POINT PLACEMENT



Picture 8 - position of the holes for the screws

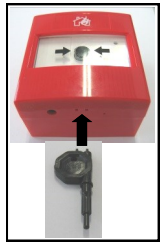
For specific information regarding call point's spacing, placement and special applications refer to your specific national standards.
It is strongly advised to mount the device away from metal objects, metal doors, metal window openings, etc. as well as cable conductors, cables (especially data cables), otherwise the operating distance may greatly drop. The device should not be installed near electronic devices and computer equipment that can interfere with the reception quality.
1) Select the position of the call point before installing and fixing its wall mounting back box. **Verify, from that position, that the communication between the device and the wire to wireless translator or the wireless expander is correctly established and working (see the COMMUNICATION QUALITY ASSESSMENT paragraph).**
2) Install and fix the correctly oriented back box, in the selected position, with the screws provided (picture 8).
3) Insert the correctly oriented front operating element onto its back box; see below the INSTALLING THE FRONT OPERATING ELEMENT paragraph.

INSTALLING THE FRONT OPERATING ELEMENT

In order to complete the installation, the front operating element must be securely installed onto the wall-mounted back box. In order to assemble correctly fit the front as illustrated in picture 9.

Picture 9 - front operating element assembly to its wall mounting back box

Picture 10 - front device block removal from its wall mounting back box



FRONT OPERATING ELEMENT REMOVAL

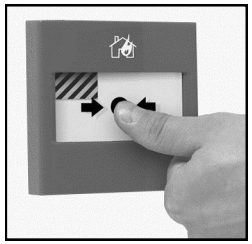
In order to remove the call point's front operating element from its wall mounting back box, the pegs on the top of the reset key must be inserted into the two release holes located under the call point; push the pegs into the holes until the front unlocks (picture 10). During this operation be careful not to twist the reset key or drop the device on the floor.

TAMPER DETECTION SPRING

The wireless call point front operating element has a tamper switch spring fitted on the rear, so that if it is removed from its wall box it will send a tamper message to the control panel (see picture 4).

ACTIVATION

The wireless call point is activated by pressing the where marked on the transparent window on the front of the device as shown in picture 11.



Picture 11 - call point activation

Picture 12 - operating element reset

TESTING THE CALL POINT

In order to test the functionality of the installed wireless call point just press where marked on the call point's operating window (see paragraph ACTIVATION). When the call point is activated the following events will occur:
1) a rectangular visual indicator drops into view under the left-top corner of the device's transparent front window
2) an activation message is sent by wireless to the wire to wireless translator module then, successively, through the wiring loop to the alarm system's control panel
3) an alarm condition is initiated by the control panel
4) the call point's visual LED indicator starts blinking indicating its activated status (see "Alarm activation", table 2).
After each test the device must be reset (see the CALL POINT RESET paragraph).
All devices must be tested after installation and, successively, on a periodic basis.

CALL POINT RESET

To reset the wire to wireless from an activated condition, it is necessary to:
1) insert the reset key into its entry situated under the front device block and turn it counter-clockwise until the operable front window unlocks (picture 12)
2) send a reset command from the control panel.

DISCHARGED BATTERIES

If one or both batteries are discharged, this condition is signaled locally by visual LED indicator (table 2), by the wire to wireless translator and, if implemented, by the system's control panel. Both must be replaced together.
The device should be removed from its back box and transferred to the safe area before batteries are removed and replaced to enhance safe handling.

MAINTENANCE

1) Before starting any maintenance work (e.g. batteries substitution), disarm the system, in order to avoid accidental and unwanted tamper detection conditions
2) remove the front operating element from its wall mounting back box
3) perform the necessary maintenance operations
4) after the device has been serviced, reinstall it correctly onto its back box, re-arm the system and check correct operation as described under the TESTING THE CALL POINT paragraph.

WARNINGS AND LIMITATIONS

Our devices use high quality electronic components and plastic materials that are highly resistant to environmental deterioration. However, after 10 years of continuous operation, it is advisable to replace the devices in order to minimize the risk of reduced performance caused by external factors. Ensure that this device is only used with compatible control panels.
Detection systems must be checked, serviced and maintained on a regular basis to confirm correct operation. Smoke sensors may respond differently to various kinds of smoke particles, thus application advice should be sought for special risks. Sensors cannot respond correctly if barriers exist between them and the fire location and may be affected by special environmental conditions. Refer to and follow national codes of practice and other internationally recognized fire engineering standards.
Appropriate risk assessment should be carried out initially to determine correct design criteria and updated periodically.

Care must be taken not to generate any electrostatic charge on the body of the device
Clean only with a lint-free damp cloth and do not use any cleaning solvents

WARRANTY

All devices are supplied with the benefit of a limited 3 year warranty relating to faulty materials or manufacturing defects, effective from the production date indicated on each product. This warranty is invalidated by mechanical or electrical damage caused in the field by incorrect handling or usage. Product must be returned via your authorized supplier for repair or replacement together with full information on any problem identified. Full details on our warranty and product's returns policy can be obtained upon request.

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EN 54-25:2008

EN 54-11:2001 + A1:2005

Ex II 1 G
SGCP100-IS

For use in compatible fire detection and alarm system

Type A for indoor use only