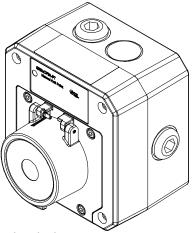


### INSTRUCTION MANUAL

## GNExCP6A-PT Tool Reset Manual Call Point For use in Flammable Gas and Dust Atmospheres

#### **GNExCP6A-PT**

Manual Call Point – Tool reset For use in Flammable Gas and Combustible Dust Atmospheres.



#### 1) Introduction

The GNExCP6A-PT is a tool reset button manual call point which is certified to the European and International Gas and Dust standards. The unit meets the requirements of the ATEX directive 2014/34/EU. IECEx and UKEX schemes.

The call point can be used in hazardous areas where potentially flammable gas and dust atmospheres may be present.

All units have no monitoring resistors, diodes or zener diodes and are not fitted with an LED indicator.

The units are Group II, EPL (equipment protection level) Gb. The equipment is certified 'Ex db eb IIC T6 Gb' and as such may be used in Zones 1 and 2 with flammable gases and vapours with apparatus groups IIA, IIB & IIC and temperature classes T1, T2. T3. T4. T5 and T6.

These units are also Group III, EPL Db. The equipment is certified 'Ex tb IIIC T75°C Db' and as such may be used in Zones 21 and 22 for combustible dusts groups IIIA, IIIB & IIIC.

#### 2) Ratings & Markings

All units have a rating label, which carries the following important information: -

Unit Type No.:
GNExCP6A-PT Manual Call Point

Input Voltage:
AC voltage 250V Max Current 5.0A Max
DC voltage 250V Max Current 0.25A Max Resistive
load: 0.03A Max Inductive load
DC voltage 125V Max Current 0.5A Max Resistive
load: 0.03A Max Inductive load
DC voltage 75V Max Current 0.75A Max
DC voltage 50V Max Current 1.0A Max
DC voltage 30V Max Current 5.0A Max Resistive
load; Inductive Load 3.0A Max
DC voltage 12V Max Current 5.0A Max

Code: Ex db eb IIC T6 Gb Ex tb IIIC T75 °C Db IP66 -40°C <= Ta <= +70°C

Certificate No.: SIRA 09ATEX3286X IECEX SIR 09.0121X CSAE 21UKEX3556X

Epsilon x:



II 2GL

CE Marking Notified Body No. (

2813

UKCA Marking Notified Body No. UK 05

Н

Year/Serial No. i.e. 20/1CP6APT000001

WARNING - DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT ELECTROSTATIC HAZARD - CLEAN ONLY WITH A DAMP CLOTH

#### 3) Type Approval Standards

The call point has an EC Type examination certificate issued by SIRA and have been approved to the following standards: -

EN60079-0:2018 / IEC60079-0:2017 EN60079-1:2014 / IEC60079-1:2014 EN60079-7:2015 / IEC60079-7:2017 EN60079-18:2015 / IEC60079-18:2014 EN60079-31:2014 / IEC60079-31:2013

The equipment is certified for use in ambient temperatures in the range -40°C to +70°C and shall not be used outside this range.

#### 4) Installation Requirements

Installation of this equipment shall only be carried out by suitably trained personnel in accordance with the applicable code of practice e.g. IEC 60079-14/EN 60079-14

Repair of this equipment shall only be carried out by the manufacturer or in accordance with the applicable code of practice e.g. IEC 60079-19/EN 60079-19.

Refer to certificates SIRA 09ATEX3286X, IECEX SIR 09.0121X and CSAE 21UKEX3556X for special conditions of safe use.

The certification of this equipment relies on the following materials used in its construction:

Enclosure: GRP - Glass Reinforced Polyester

Through enclosure mechanism: Plastic Nylon Zytel Injection Moulded

Sealing of enclosure and mechanism: O-ring Acrylonitrile-Butadiene Rubber

If the equipment is likely to come into contact with aggressive substances, then it is the responsibility of the user to take suitable precautions that prevent it from being adversely affected, thus ensuring that the type of protection is not compromised.

"Aggressive substances" - e.g. acidic liquids, gases or solvents that may affect polymeric materials.

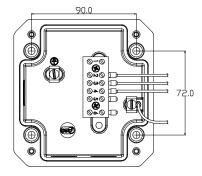
"Suitable precautions" - e.g. regular checks as part of routine inspections or establishing from the material's data sheet that it is resistant to specific chemicals.

Under extreme conditions the unit may generate an ignition-capable level of electrostatic charges. The unit must not be installed in a location where it may be subjected to external conditions (such as high pressure steam) which may cause a build-up of electrostatic charges on non-conducting surfaces.

Cleaning of the unit must only be carried out with a damp cloth.

#### 5) Call Point Location and Mounting

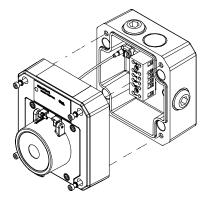
The location of the call point should enable ease of access for operation and testing. The unit should be mounted using the 4 off fixing holes which will accept up to M5 sized fixings.



View of base unit showing fixing centres (in mm).

To gain access to the mounting holes in the base the front cover must be removed.

This is achieved by removing the 4 off M4 cap head bolts holding on the cover.

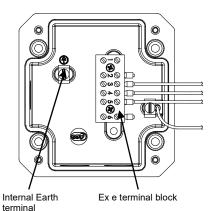


Once the screws are removed the cover will hang down out of the way to gain access to the Ex e terminal block, the internal earth terminal and mounting hole recesses.

#### 6) Earthing

The unit has an internal earth terminal. It is recommended that a cable crimp lug is used on the earth wires.

The internal earth wire is placed under a earth clamp which will stop the cable twisting. This is secured by an M4 screw and spring washer.



Note: Depending on options chosen an 8-Way DIN Rail or 6-Way terminal block may be selected

#### 7) Cable connections

There are 3 off cable entries for M20x1.5 Ex e approved cable glands or stopping plugs with a minimum ingress protection of IP66.

The unit can be wired in a number of different ways depending whether normally open or normally closed contacts are required. See wiring schematic D154-06-001 for wiring options.

When wiring to Increased Safety terminal enclosures, you are only permitted to connect one wire into each way on the terminal block, unless a pair of wires are crimped into a suitable ferrule. For the six-way terminal block wire sizes allowable are 0.5mm² to 4.0mm². For the 8-way DIN rail wire sizes allowable are 0.5mm² to 2.5mm²

Leads connected to the terminals shall be insulated for the appropriate voltage and this insulation shall extend to within 1mm of the metal of the terminal throat. They shall only be installed and wired with cable in an ambient temperature of -10°C to +80°C

All terminal screws, used or unused, shall be tightened down to between 0.5 Nm and 0.7 Nm.

#### 8) Testing unit operation

The tool reset button unit can be tested without the need to replace any element.

To test, lift the cover lift flap to reveal the tool reset button. The button should be pressed into the body to activate the unit and place it into the operated condition.



The call point switch will now change over its contacts to operate the alarm.

Once testing is complete the unit needs to be reset from the operated condition.

Using the special rest tool provided, rotate the tool reset button anticlockwise by an angle of 55°, see guide alignment marks on the button and cover, shown below (1). The tool reset button should pop back up to its original position.

Ensure that the tool reset button has also twisted back clockwise by 55° to its original position see guide marks on button and cover, shown below (2). The unit is now reset.

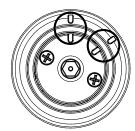




1. On operated unit twist tool reset button anticlockwise 55° with special key to reset



2. Button should pop up and twist back to original position



Note: use alignment marks circled to indicate the tool reset buttons status/position

Unit currently shown as 'standby condition'

Resetting an operated unit is the same as resetting a tested unit.

#### 9) SIL 2 Reliability Data

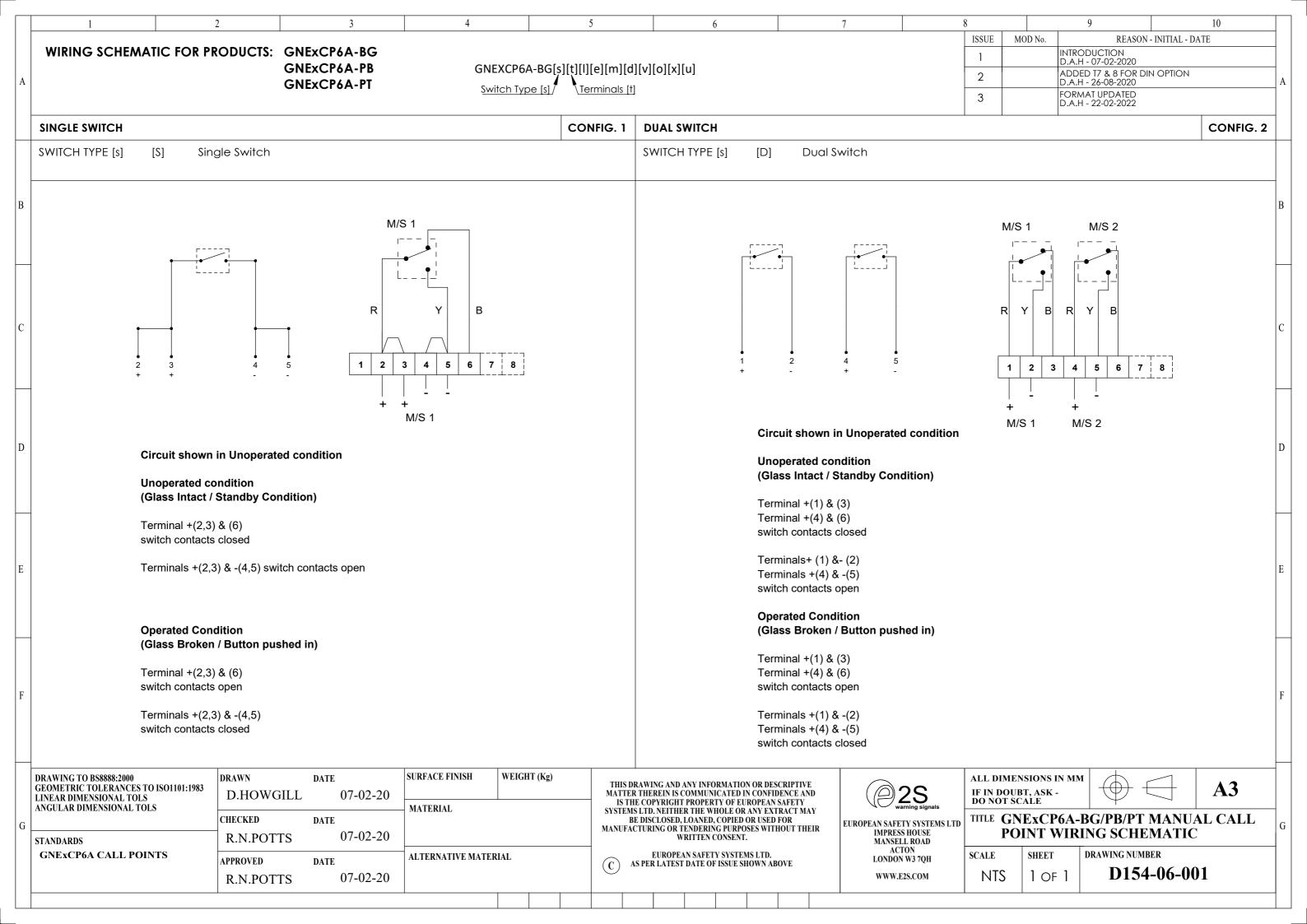
Reliability and Functional safety IEC/EN61508 which has been assessed and is considered suitable for use in low demand safety function:

- Random Hardware Failures and Systematic Failures (route 2H)
- As an unvoted item (i.e. hardware fault tolerance of 0) at SIL 2

The product was assessed against failure modes:

- Failure to close a contact when the call point is struck with specified force
- Failure to open a contact when the call point is struck with specified force
- · Spurious output despite no input

SIL 2
0.133 pmh
0 pmh
0.1 pmh
-
0.033 pmh
0
99%
Α
0
>99%
1.25 x 10 <sup>-3</sup>
Up to 1 year



## **EU Declaration of Conformity**



Manufacturer: European Safety Systems Ltd.

Impress House, Mansell Road, Acton

London, W3 7QH **United Kingdom** 

Authorised Representative: E2S Warnsignaltechnik UG

Charlottenstrasse 45-51

72764 Reutlingen

Germany

**Equipment Type:** GNExCP6A-BG, GNExCP6A-PB, GNExCP6A-PT

> GNExCP6B-BG, GNExCP6B-PB, GNExCP6B-PT, GNExCP6C-BG, GNExCP6C-PB, GNExCP6C-PT GNExCP6D-BG, GNExCP6D-PB, GNExCP6D-PT GNExCP6E-BG, GNExCP6E-PB, GNExCP6E-PT

Directive 2014/34/EU: Equipment and Protective Systems for use in Potentially Explosive Atmospheres (ATEX)

Notified Body for EU type Examination (Module B): Sira Certification Service

Notified Body No.: 2813

Sira Certification Service

CSA Group Netherlands B.V, Utrechtseweg 310, 6812 AR, Arnhem, Netherlands

EU-type Examination Certificate (Module B): Sira 09ATEX3286X

Notified Body for Quality Assurance Notification / Conformity to EU-type

Notified Body No.: 2813 quality assurance of the production process (Module D):

CSA Group Netherlands B.V, Utrechtseweg 310, 6812 AR, Arnhem, Netherlands

Quality Assurance Notification (Module D): SIRA 05 ATEX M342

Provisions fulfilled by the equipment: II 2G Ex db eb IIC T6 Gb (- $40^{\circ}$ C  $\leq$  Ta  $\leq$  + $70^{\circ}$ C) GNExCP6A:

II 2D Ex tb IIIC T75°C Db (-40°C  $\leq$  Ta  $\leq$  +70°C)

GNExCP6B: II 2G Ex db eb mb IIC T4 Gb (-40°C  $\leq$  Ta  $\leq$  +50°C)

II 2D Ex tb IIIC T80°C Db (-40°C  $\leq$  Ta  $\leq$  +50°C)

GNExCP6C. II 2G Ex db eb mb IIC T4 Gb (-40°C  $\leq$  Ta  $\leq$  +65°C)

II 2D Ex tb IIIC T75°C Db (-40°C  $\leq$  Ta  $\leq$  +65°C)

GNExCP6D: II 2G Ex db eb mb IIC T4 Gb (-40°C  $\leq$  Ta  $\leq$  +70°C)

II 2D Ex tb IIIC T80°C Db (-40°C  $\leq$  Ta  $\leq$  +70°C)

II 2G Ex db eb mb IIC T4 Gb (-40°C  $\leq$  Ta  $\leq$  +65°C) GNExCP6E:

II 2D Ex tb IIIC T75°C Db (-40°C  $\leq$  Ta  $\leq$  +65°C)

EN IEC 60079-0:2018 Standards applied:

EN 60079-1:2014

EN 60079-7:2015/A1:2108 IEC 60079-18:2015/AC:2018

EN 60079-31: 2014

IP6X Dust Protection to EN60079-0 / EN 60079-31

Directive 2014/30/EU: Electromagnetic Compatibility Directive (EMC)

Standards applied: EN 61000-6-1:2007

EN 61000-6-2:2005

EN 61000-6-3:2007 / A1:2011 / AC: 2012

EN 61000-6-4:2007 / A1: 2011

## **EU Declaration of Conformity**



Directive 2011/65/EU: Restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

The product and all the components contained within it are in accordance with the restriction of the use of hazardous substances in electrical and electronic equipment, including amendment by Directive 2015/863/EU.

Regulation (EC) 1907/2006: Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

The product and all the components contained within it are free from substances of very high concern.

Other Standards and Regulations

EN 60529:1992+A2:2013 - Degrees of protection provided by enclosures (IP code) - enclosure rated IP66

On behalf of European Safety Systems Ltd., I declare that, on the date the equipment accompanied by this declaration is placed on the market, the equipment conforms with all technical and regulatory requirements of the above listed directives, regulations and standards.

This Declaration is issued under the sole responsibility of the manufacturer.

Martin Streetz

Quality Assurance Manager

Document No.: DC-043\_Issue\_J
Date and Place of Issue: London, 23/12/2020



## UKCA Declaration of Conformity



Manufacturer: European Safety Systems Ltd.

Impress House, Mansell Road, Acton

London, W3 7QH **United Kingdom** 

**Equipment Type:** GNExCP6A-BG, GNExCP6A-PB, GNExCP6A-PT

> GNExCP6B-BG, GNExCP6B-PB, GNExCP6B-PT, GNExCP6C-BG, GNExCP6C-PB, GNExCP6C-PT GNExCP6D-BG, GNExCP6D-PB, GNExCP6D-PT GNExCP6E-BG, GNExCP6E-PB, GNExCP6E-PT

Directive UKSI 2016:1107 (as amended by UKSI 2019:696) - Schedule 3A, Part 1: Product or Protective System Intended for use in Potentially Explosive Atmospheres (UKCA)

Notified Body for UK type Examination (Module B): Sira Certification Service

Notified Body No.: 0518

Sira Certification Service Notified Body No.: 0518

CSAE 22UKQAN0046

Rake Lane, Eccleston, Chester CH4 9JN, UK

CSAE 21UKEX3556X UK-type Examination Certificate (Module B):

Notified Body for Quality Assurance Notification / Conformity to EU-type

quality assurance of the production process (Module D):

Quality Assurance Notification (Module D):

Provisions fulfilled by the equipment:

GNExCP6A:

II 2G Ex db eb IIC T6 Gb (-40°C  $\leq$  Ta  $\leq$  +70°C)

Rake Lane, Eccleston, Chester CH4 9JN, UK

II 2D Ex tb IIIC T75°C Db (-40°C  $\leq$  Ta  $\leq$  +70°C)

GNExCP6B: II 2G Ex db eb mb IIC T4 Gb (-40°C  $\leq$  Ta  $\leq$  +50°C)

II 2D Ex tb IIIC T80°C Db (-40°C  $\leq$  Ta  $\leq$  +50°C)

GNExCP6C: II 2G Ex db eb mb IIC T4 Gb (-40°C  $\leq$  Ta  $\leq$  +65°C)

II 2D Ex tb IIIC T75°C Db (-40°C  $\leq$  Ta  $\leq$  +65°C)

GNExCP6D: II 2G Ex db eb mb IIC T4 Gb (-40°C  $\leq$  Ta  $\leq$  +70°C)

II 2D Ex tb IIIC T80°C Db (-40°C  $\leq$  Ta  $\leq$  +70°C)

GNExCP6E: II 2G Ex db eb mb IIC T4 Gb (-40°C  $\leq$  Ta  $\leq$  +65°C)

II 2D Ex tb IIIC T75°C Db (-40°C  $\leq$  Ta  $\leq$  +65°C)

EN IEC 60079-0:2018 Standards applied:

EN 60079-1:2014 EN 60079-7:2015/A1:2108 IEC 60079-18:2015/AC:2018 EN 60079-31: 2014

IP6X Dust Protection to EN60079-0 / EN 60079-31

Directive 2014/30/EU: Electromagnetic Compatibility Directive (EMC)

Standards applied: EN 61000-6-1:2007

EN 61000-6-2:2005

EN 61000-6-3:2007 / A1:2011 / AC: 2012

EN 61000-6-4:2007 / A1: 2011

Directive 2011/65/EU: Restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

The product and all the components contained within it are in accordance with the restriction of the use of hazardous substances in electrical and electronic equipment, including amendment by Directive 2015/863/EU.

Regulation (EC) 1907/2006: Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

The product and all the components contained within it are free from substances of very high concern.



# UKCA Declaration of Conformity



#### Other Standards and Regulations

EN 60529:1992+A2:2013 - Degrees of protection provided by enclosures (IP code) - enclosure rated IP66

On behalf of European Safety Systems Ltd., I declare that, on the date the equipment accompanied by this declaration is placed on the market, the equipment conforms with all technical and regulatory requirements of the above listed directives, regulations and standards.

This Declaration is issued under the sole responsibility of the manufacturer.

Martin Streetz **Quality Assurance Manager**  Document No.: DC-094\_Issue\_A Date and Place of Issue: London, 04/02/2022