

# CP840Ex INTRINSICALLY SAFE WEATHERPROOF BREAK GLASS CALLPOINT

## PRODUCT APPLICATION & DESIGN INFORMATION

### 1. INTRODUCTION

The CP840Ex Intrinsically Safe Weatherproof Break Glass Callpoint is designed to monitor and signal the condition of the switch contact associated with the break glass.

The CP840Ex callpoint meets the requirements of EN54 Pt 11

### 2. INTRINSIC SAFETY

The callpoint is for use in potentially explosive gas and dust atmospheres (zone 0 gas, zone 20 dust).

The callpoint is designed to comply with EN/IEC 60079-0:2006, EN/IEC 60079-11:2007 and EN/IEC61241-11:2006 for Intrinsically Safe apparatus. It is certified:

**ATEX code:**  **Certificate:** BAS01ATEX1394X

**Gas/Dust code:** Ex ia IIC T5  
Ex iaD 20 T100°C

**IECEX Certificate:** IECEX BAS 07.0063X

The callpoint is designed and manufactured to protect against other hazards as defined in paragraph 1.2.7 of Annex II of the ATEX Directive 94/9/EC.

### 2.1 CALLPOINT USE

The callpoint may only be used in conjunction with an EXI800 Interface Module and a Pepperl+Fuchs KFD0-CS-Ex1.54 galvanic isolator.

### 2.2 SPECIAL CONDITIONS OF SAFE USE

The apparatus has a plastic enclosure which constitutes a potential electrostatic hazard. The enclosure must be cleaned only with a damp cloth.

### 3. MECHANICAL CONSTRUCTION

The housing consists of a combined test, reset and lid release mechanism, main assembly incorporating lid moulding and weatherproof cover, plus weatherproof backbox. The lid release mechanism and lid moulding retain the break glass element. The lid moulding contains the switch assembly.

A red LED is provided at the top edge of the front cover providing a visual indication of the condition of the internal switch. Cables may enter into the callpoint via cable gland entries at the top and bottom of the weatherproof backbox. The weatherproof backbox may only be surface mounted.

An addressable module is secured within the main assembly. The terminals are used for connection to the addressable circuit.

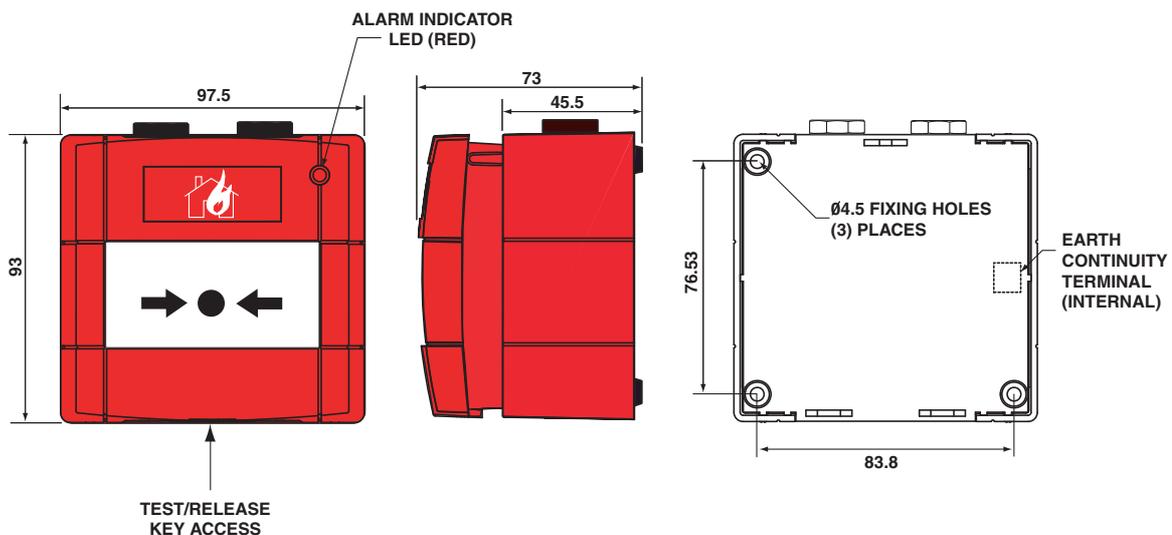


Fig. 1 CP840Ex Dimensions

# 800 SERIES

17A-02-CPEx

3 4/09

## 4. OPERATION

The CP840Ex consists of a switch contact which is operated by breaking the glass sheet. When the callpoint is addressed by the controller, it signals the condition of this switch contact to the controller. The LED is illuminated when the switch contact is in the 'ALARM' condition.

As the callpoint is resettable, it can be tested at any time with the aid of the callpoint reset key provided. To release the front of the housing, the key is fully inserted into the bottom of the housing and pulled down, this releases the break glass element and the callpoint is operated. To reset the callpoint, the key is removed and the bottom of the housing is pushed upwards until it locks.

## 5. TECHNICAL SPECIFICATION

### Overall Dimensions

See Fig. 1.

### Material

Housing: PC/ABS (C1200HF)  
Weatherproof Cover: PC (RD3D011)  
Weatherproof Backbox: Glass reinforced (GFN2)

### Environmental

Operating Temperature: -25°C to +70°C  
Storage Temperature: -30°C to +70°C  
Relative Humidity: up to 95% RH  
(non-condensing)  
IP Rating: IP67

## Electrical Characteristics

Characteristics	Min.	Typ.	Max.	Unit
Loop Voltage	18		24	V
Quiescent Current		250	300	µA
Alarm Current		4.5	5	mA

## Electromagnetic Compatibility

The CP840Ex complies with the following:

Product family standard EN50130-4 in respect of Conducted Disturbances, Radiated Immunity, Electrostatic Discharge, Fast Transients and Slow High Energy.

EN61000-6-3 for Emissions.

## 6. CABLING

A simplified wiring diagram is shown in Fig. 2.

See I.S. System 800 document 17A-13-D for cable parameters.

Cables are to be selected in accordance with Publication 17A-02-D and the requirements of the current issue of BS5839.

Two pairs of loop (L+/L-) terminals are provided and should be connected, observing correct polarity, to the Intrinsically Safe Loop.

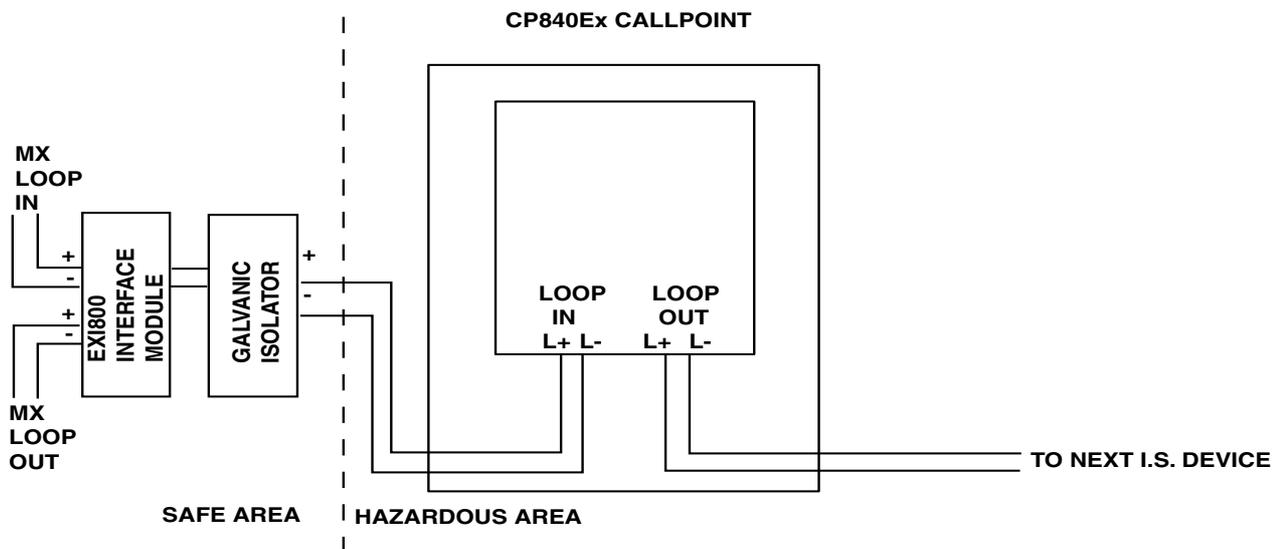


Fig. 2 CP840Ex Simplified Wiring Diagram

## 7. ADDRESS PROGRAMMING

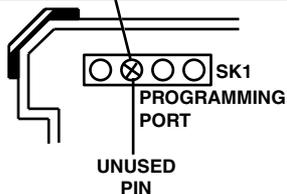
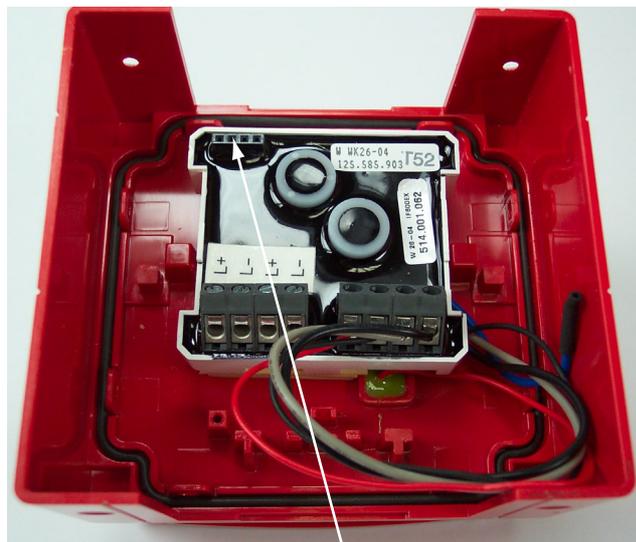
The CP840Ex has a default factory set address of 255. This must be set to the loop address of the device using the 801AP MX Service Tool **IN THE SAFE AREA ONLY**. The CP840Ex is programmed with the address via the Programming Port (see Fig. 3).

## 8. ORDERING INFORMATION

CP840Ex: 514.800.513

JM/an

15<sup>th</sup> April 2009



**Fig. 3 CP840Ex Internal View**