

CP840Ex Intrinsically Safe Weatherproof Break Glass Callpoint

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.

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 60079-0:2012+A11:2013 and EN/IEC 60079-11:2012 for Intrinsically Safe apparatus. It is certified:

■ ATEX code:  II 1 GD 

■ Certificate: BAS01ATEX1394X



as/Dust code:

- Ex ia IIC T5 Ga
- Ex ia IIIB T100°C Da

■ 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.

Callpoint use

The callpoint may only be used in conjunction with an EXI800 Interface Module and a Pepperl+Fuchs KFD0-CS-Ex1.54/KFD0-CS-Ex2.54 galvanic isolator.

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 and do not mount in a high velocity dust laden atmosphere.

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.

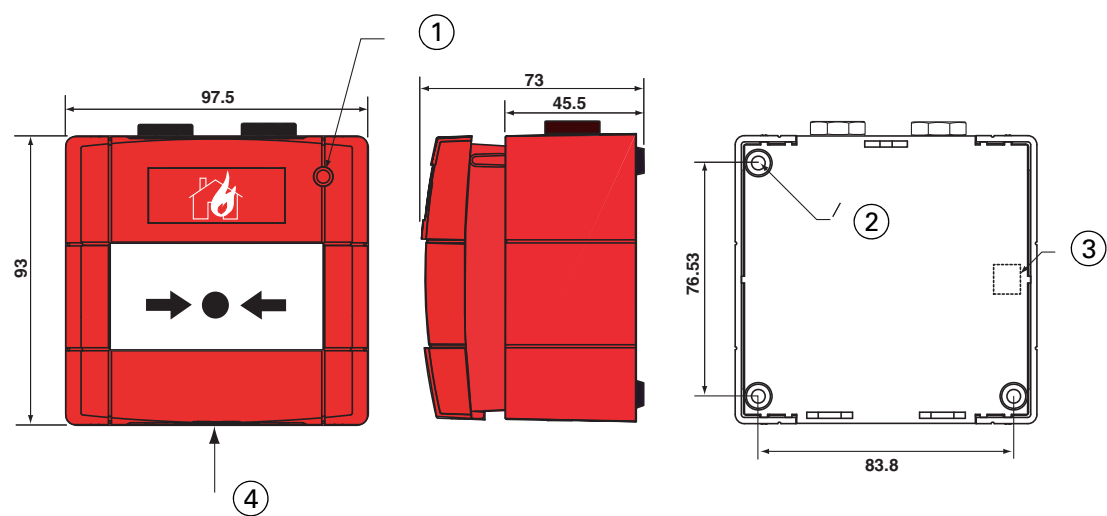


Fig. 1: CP840Ex Dimensions
1– Alarm indicator LED (red)
2– Ø 4.5 Fixing holes (3 places)
3– Earth continuity terminal (internal)
4– Test/release key access

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.

Technical specifications

Mechanical

Parameter	Value
Overall Dimensions	See Fig. 1.
Material:	
■ Housing	PC/ABS (C1200HF)
■ Weatherproof Cover	PC (RD3D011)
■ Weatherproof Backbox	Glass reinforced (GFN2)

Table 1: Mechanical Specifications

Environmental

Parameter	Value
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

Table 2: Environmental Specifications

Electrical Characteristics

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

Table 3: Electrical Characteristics

Electromagnetic Compatibility

The CP840Ex complies with the following:

- Product family standard EN50130-4 in respect of:
 - Conducted Disturbances
 - Radiated Immunity
 - Electrostatic Discharge
 - Fast Transients
 - Slow High Energy.
- EN61000-6-3 for Emissions.

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.

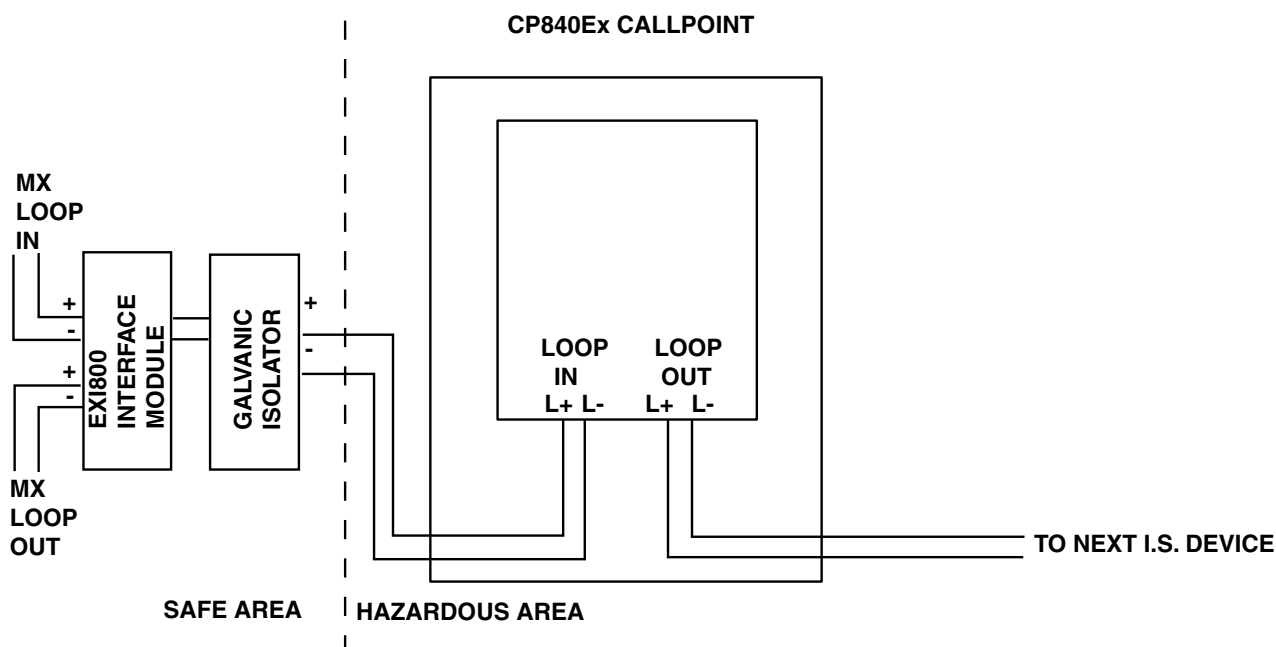


Fig. 2: CP840Ex Simplified Wiring Diagram

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 using the 801AP MX Service Tool/ 850EMT Engineering Management Tool IN THE SAFE AREA ONLY. The CP840Ex is programmed with the address via the Programming Port (see Fig. 3).

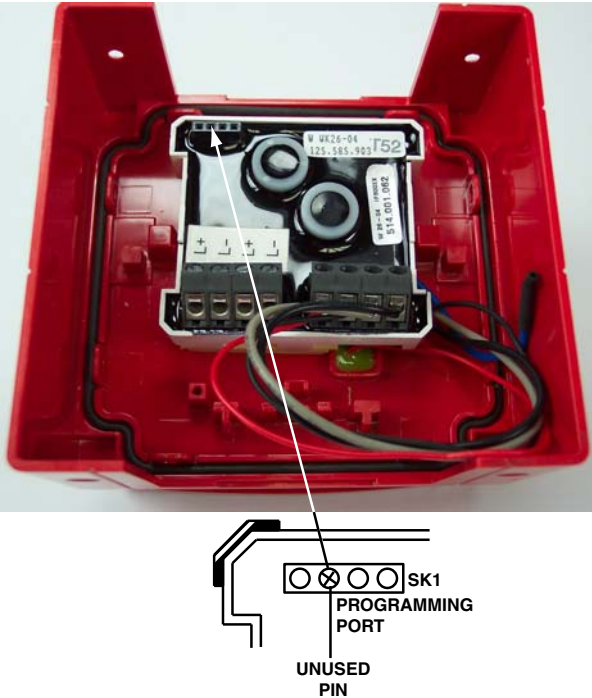


Fig. 3: CP840Ex Internal View

CPR Information

CE 0832
Tyco Fire & Security GmbH, Victor von Bruns-Strasse 21, 8212 Neuhausen am Rheinfall, Switzerland 15 DoP-2015-4098
EN 54-11: 2001 + A1: 2005 Intrinsically safe addressable Type A manual outdoor callpoint for use in fire detection and alarm systems CP840Ex
Essential Characteristics EN 54-11: 2001 + A1: 2005 Nominal activation conditions/Sensitivity, Response delay (response time) and Performance under fire con- ditions: Pass Operational reliability: Pass Tolerance to supply voltage: Pass Durability of operational reliability and response delay; temperature resistance: Pass Durability of operational reliability; vibration resistance: Pass Durability of operational reliability; humidity resistance: Pass Durability of operational reliability; corrosion resist- ance: Pass Durability of operational reliability; electrical stability: Pass

Ordering information

Item	Order Code
CP840Ex	514.800.513

Fig. 4: Order codes