# **CROUSE-HINDS**

SM87BG & SM87PB manual call point range

Ex d, Ex ia, weatherproof



# Overview

These manual fire alarm, emergency shutdown break-glass and pushbutton units have been designed for the most arduous environmental conditions.

The units are both easy to install and maintain. Intrinsically safe Ex ia and flameproof Ex d versions of each model are available.

A choice of either stainless steel or alloy makes the range suitable for either the offshore or onshore industries. Stainless steel, one of the most durable materials available on the market, is both hard wearing and corrosion resistant, increasing the life of products in harsh environments and therefore reducing maintenance costs.

## **Features**

- Zone 0, Zone 1 and Zone 2 use\*
- ATEX certified
- UL listed for USA and Canada (SM87PBL only). Class I, Div 1, Groups C & D
- ULC certified (SM87PBL only) for Class I, Zone 1 Groups C & D
- CSA certified
- IECEx certified
- TR CU certified
- Brazilian (INMETRO) certified
- Russian Fire certified

- CCOE certified
- SIL 2 certified (SM87PB only)
- IP66 and IP67
- DNV type approval (IEC 60945) (SM87PB only)
- Certified temperature: -55°C to
- Stainless steel or marine grade
- Robust yet lightweight
- Easy to maintain
  - \*Model dependent

















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#### Certifications Cert. no. Baseefa03ATEX0075. ATEX Approved Ex II 2GD ATEX Ex d Certified to: EN60079-0, EN60079-1, EN60079-31 Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db. IP66/IP67 Cert no. Baseefa 02ATEX0152X. ATEX Approved Ex II 1GD ATEX Ex ia Certified to: FN60079-0, FN60079-11 Ex ia IIC T4 Ga, Ex ia IIIC T135°C Da Cert. no. IECEx BAS 09.0060 IECEx Ex d Certified to: EN60079-0, EN60079-1, EN60079-31 Ex d IIC T5/T6 Gb, Ex tb IIIC T85°/T100°C Db. IP66/IP67 IECEx Ex ia Cert. no. IECEx BAS 10.0033X Certified to: IEC60079-0, IEC60079-11, Ex ia IIC T4 Ga, Ex ia IIIC T135°C Da UL Listing no. E186629 UL listed to Class 1, Div 1. Groups C & D. (SM87PBL) ULC Cert. no. 20091023-E320282 ULC certified for Class I, Zone 1 Groups C & D (SM87PBL) Class 1, Div 1 & 2. Group D CSA Explosion proof Ex d IIC T5/T6 Gb Class 1, Div 1 & 2. Groups A-D CSA Intrinsically safe 1Ex d IICT5/T6 Gb, Ex tb IIICT85°/T100°C Db. IP66/IP67 TR CU Ex d Russian Fire Approved 0Ex ia IICT4 Ga. Russian Fire Approved TR CU Ex ia INMETRO Ex d Ex db IICT5/T6 Gb DNV (IEC 60945) (Stainless Steel SM87PB only) Type Approvals SM87PB only - SIL2 Certification to IEC61508. Cert no. 20151118-4786827453 SIL CCC Ex d IIC T5/T6 Gb Ex tD A21 IP66/IP67 T85°C/T100°C **Specifications** Materia Grade 316 ANC4B stainless steel or LM 25 TF marine grade alloy Finish Paint finish as standard or to customer specification Voltage Ex d 24V a.c./d.c. Ex ia 28V Rating Switches 2 pole c/o, wired to terminals Optional up to 4 pole (UL version 2 pole only) Optional indicator A red high intensity LED can be fitted for alarm indication As standard the LED is not provided with over current protection. The forward current (If) should be limited to 20mA Ex d3 -55°C to +70°C Certified temp Ex ia\* -55°C to +60°C -20°C to +55°C (LED version only) UL -40°C to +70°C -20°C to +55°C (LED version only)

CSA Explosion proof - Class 1, Div 1 & 2.

CSA Intrinsically safe - Class 1, Div 1 & 2

Up to 4 x 1/2" or 3/4" NPT UL

inc. plug on the opposite side

Will accept up to 1.5mm² cable

470R minimum (d.c. & I.S. units only)

3.8 kg. steel (approx.) or 2.5 kg. alloy (approx)

IP66 & IP67. SM87PB IP68 (35m for 40 hours)
Up to 4 x M20 or M25 ISO Ex d/Ex ia

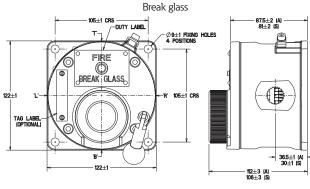
\*Note: includes ATEX, IECEx, TR CU & INMETRO versions

Stainless steel version comes with two entries as standard.

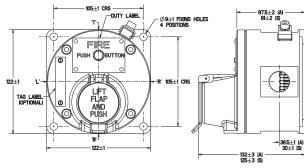
Units ordered with a single entry ordering code are supplied with 2x entries

CSA - Ex d IIC

### General arrangement drawing (all dimensions in mm)



Push button



Both the Ex ia units and the Ex d units have the same external appearance. Also the internal components are identical throughout the range. Each unit can be wired for either NO, NC or CO contacts to customer specification

## Ordering requirements

Weight

**Entries** 

Terminals

Resistor values

Ingress protection

The following code is designed to help in selection of the correct unit. Build up the reference number by inserting the code for each component into the appropriate box

-50°C to +55°C

-50°C to +40°C

