SM87BG & SM87PB manual call point range

Ex d, Ex ia, weatherproof



CROUSE-HINDS

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 +70°C*
- Stainless steel or marine grade alloy
- Robust yet lightweight
- Easy to maintain

*Model dependent





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| Certifications | | | | | |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| ATEX Ex d | Cert. no. Baseefa03ATEX0075. ATEX Approved Ex II 2GD Certified to: EN60079-0, EN60079-1, EN60079-31 Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db. IP66/IP67 | | | | |
| ATEX Ex ia | Cert no. Baseefa 02ATEX0152X. ATEX Approved Ex II 1GD Certified to: EN60079-0, EN60079-11 Ex ia IIC T4 Ga, Ex ia IIIC T135°C Da | | | | |
| IECEx Ex d | Cert. no. IECEx BAS 09.0060 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) | | | | |
| CSA Explosion proof | Class 1, Div 1 & 2. Group D Ex d IIC T5/T6 Gb | | | | |
| CSA Intrinsically safe | Class 1, Div 1 & 2. Groups A-D | | | | |
| TR CU Ex d | 1Ex d IIC T5/T6 Gb, Ex tb IIIC T85°/T100°C Db. IP66/IP67 Russian Fire Approved | | | | |
| TR CU Ex ia | 0Ex ia IIC T4 Ga. Russian Fire Approved | | | | |
| INMETRO Ex d | Ex db IIC T5/T6 Gb | | | | |
| Type Approvals | DNV (IEC 60945) (Stainless Steel SM87PB only) | | | | |
| SIL | SM87PB only - SIL2 Certification to IEC61508. Cert no. 20151118-4786827453 | | | | |
| ссс | Ex d IIC T5/T6 Gb, Ex tD A21 IP66/IP67 T85°C/T100°C | | | | |
| Specifications | | | | | |

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

| • | | | | | | | | |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|
| Material | 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 | 2A | | | | | | | |
| 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 | | | | | | | |
| Certified temp | Ex d* Ex ia* UL CSA Explosion proof - Class 1, Div 1 & 2. CSA - Ex d IIC CSA Intrinsically safe - Class 1, Div 1 & 2 | -55°C to +70°C. -55°C to +60°C -20°C to +55°C (LED version only) -40°C to +70°C, -20°C to +55°C (LED version only) -50°C to +55°C -55°C to +70°C -50°C to +40°C | | | | | | |
| | *Note: includes ATEX, IECEx, TR CU & INMETRO versions | | | | | | | |
| Weight | 3.8 kg. steel (approx.) or 2.5 kg. alloy (appr | 3.8 kg. steel (approx.) or 2.5 kg. alloy (approx) | | | | | | |
| Ingress protection | IP66 & IP67. SM87PB IP68 (35m for 40 hc | IP66 & IP67. SM87PB IP68 (35m for 40 hours) | | | | | | |
| Entries | Up to 4 x M20 or M25 ISO Ex d/Ex ia Up to 4 x ½" or ¾" NPT UL | | | | | | | |
| Terminals | Will accept up to 1.5mm ² cable | | | | | | | |
| Resistor values | 470B minimum (d.c. & I.S. units only) | | | | | | | |

Ordering requirements

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

| Unit Model SM87 | Material | Certification | | Entri | ies | Duty label Ta | ag label | Options | Fini | ish |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|-----------------------------------------------------------------------|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------|---------------------------------------|-----------------------------------------|
| | Material* C Stainless steel Alloy UL version only available in alloy | ode S A | | | Duty Fire b Push Fire p ESDC Burni | label Code reakglass 1 button 2 uush button 3 D abandon 4 ng house logo 5† | Optio Not re LED Resist Resist Diode | ns equired for series for EOL | Code N A G* H* D* | |
| Model* Breakglass latching Lift flap breakglass latching Push button latching key ro Push button only moment *UL and ULC versions only availa | Code BGL BGL Set PBL ary action PBM | Certification Ex ia Ex d IECEx - Ex ia IECEx - Ex d UL ULC CSA - Intrinsically Safe CSA - Ex proof | Code I D UJ UL UC IC DC | | Fire/F Other None *Pleases †Must be Fire app ‡This op orderin Fire Ala | EU 6‡ O* N specify s selected for Russian rooval tion must be used wher g a red callpoint for ULC arm applications | 3 pole 4 pole *Please s | c/o switch c/o switch pecify | F | |
| | | TR CU - Ex ia TR CU - Ex d TR CU - Ex a Russian Fire TR CU - Ex d Russian Fire INMETRO - Ex d CCC *For Russian Fire approval red hou | IG DG IGF* DGF* DM Q | Entries M20 M25 ½" NPT ¾" NPT Other Position Top | Code 1 2 3 4 5 *T | Tag la Requir Not re *Please sp | bel Code ed Y* quired N pecify | Fin Rec Blu Yell Spe *Ploop | ish d low low/black ecial | Code R† B Y stripes X S* |
| | | burning house duty label must be selected | | Bottom RHS LHS | *B *R *L | *Prefix position with s code i.e. 1T1B = M20 Top and Bottom | †Must Fire a | * Hease specify †Must be selected for Russian Fire approval | | |