

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

*Model dependent



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°C/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°C/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
CCC	Ex d IIC T5/T6 Gb, Ex tD A21 IP66/IP67 T85°C/T100°C

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* -55°C to +70°C. 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. -50°C to +55°C CSA - Ex d IIC -55°C to +70°C CSA Intrinsically safe - Class 1, Div 1 & 2 -50°C to +40°C *Note: includes ATEX, IECEX, TR CU & INMETRO versions	
Weight	3-8 kg. steel (approx.) or 2.5 kg. alloy (approx)	
Ingress protection	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 Stainless steel version comes with two entries as standard. Units ordered with a single entry ordering code are supplied with 2x entries inc. plug on the opposite side	
Terminals	Will accept up to 1.5mm² cable	
Resistor values	470R minimum (d.c. & I.S. units only)	

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

DSMC0005/F 02/21

The image contains two sets of technical drawings for fire alarm devices. The top set is for a 'Break glass' device, and the bottom set is for a 'Push button' device. Each set includes a front view and a side view.

Break glass (Top):

- Front View:** A circular device with a central lens. Text on the lens includes 'FIRE' and 'BREAK GLASS'. A 'DUTY LABEL' is at the top, and a 'TAG LABEL (OPTIONAL)' is on the left. Dimensions: Total width 105±1 CRS, Total height 122±1, Radius R' 105±1 CRS, Radius B' 122±1, Radius L' 105±1 CRS. It has 4 Ø9±1 FIXING HOLES.
- Side View:** Shows the device's profile. Dimensions: Total width 87.5±2 (A) / 81±2 (S), Mounting hole offset 36.5±1 (A) / 30±1 (S), and base width 112±3 (A) / 106±3 (S).

Push button (Bottom):

- Front View:** A circular device with a central lens. Text on the lens includes 'FIRE' and 'PUSH BUTTON'. A 'DUTY LABEL' is at the top, and a 'TAG LABEL (OPTIONAL)' is on the left. Dimensions: Total width 105±1 CRS, Total height 122±1, Radius R' 105±1 CRS, Radius B' 122±1, Radius L' 105±1 CRS. It has 4 Ø9±1 FIXING HOLES.
- Side View:** Shows the device's profile with a push button mechanism. Dimensions: Total width 87.5±2 (A) / 81±2 (S), Mounting hole offset 36.5±1 (A) / 30±1 (S), and base width 112±3 (A) / 106±3 (S).

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