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*
- Ex d IIC T5/T6 or Ex ia IIC T4
- ATEX approved, Ex II 1G (Ex ia) or Ex II 2GD (Ex d)
- UL listed for USA and Canada (PB only). Class I, Div 1, Groups C & D
- ULC certified for Class I, Zone 1 Groups C & D
- CSA certified
- IECEx certified Gb, Db
- TR CU certified
- Chinese (CQST) certified
- Brazilian (INMETRO) certified

- CCOE certified
- SIL 2 certified (SM87PB only)
- IP66 and IP67
- DNV type approval (IEC 60945) (SM87PB only)
- Certified temperature: –55ºC to +70ºC*
- Stainless steel or marine grade alloy
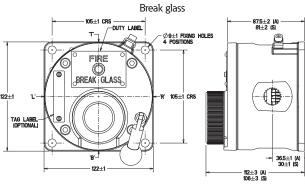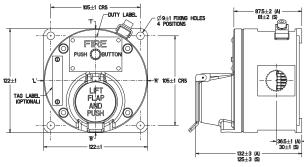- Robust yet lightweight
- Easy to maintain

  *Model dependent

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 1G Certified to: EN60079-0, EN60079-11, EN60079-26 Ex ia IIC T4 Ga
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, IEC60079-26 Ex ia IIC T4 Ga
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
CSA Ex d	Class 1, Div 1 & 2. Group D
CSA Ex ia	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 d IIC T5/T6 Gb
CQST Exd	Exd IICT85°C/T100°C
CQST Exia	Exia IIC T4
Type Approvals	DNV (IEC 60945) (Stainless Steel SM87PB only)
SIL	SM87PB only - SIL2 Certification to IEC61508. Cert no. 20151118-4786827453

Specifications

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 –50°C to +55°C (Ex d), –50°C to +40°C (Ex ia) *Note: includes ATEX, IECEx, CUTR, Brazilian & Chinese 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
Terminals	Will accept up to 1·5mm² cable
Resistor values	470R minimum (d.c. & I.S. units only)

General arrangement drawing (all dimensions in mm)

Break glass

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
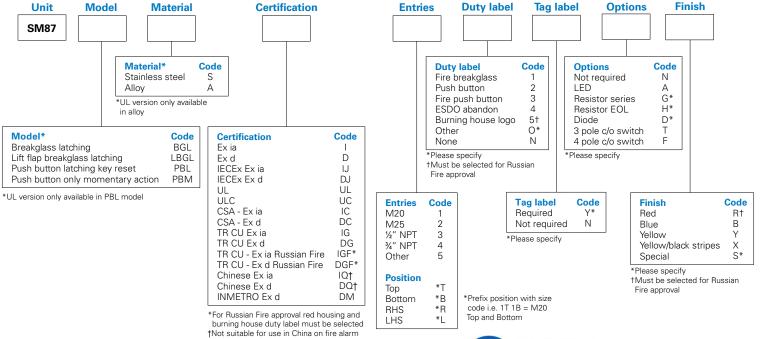
Ordering requirements

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	Material	Certification	Entries	Duty label	Tag label	Options	Finish
SM87								

Material*	Code
Stainless steel	S
Alloy	A

*UL version only available in alloy

Model*	Code
Breakglass latching	BGL
Lift flap breakglass latching	LBGL
Push button latching key reset	PBL
Push button only momentary action	PBM

*UL version only available in PBL model

Certification	Code
Ex ia	I
Ex d	D
IECEx Ex ia	IJ
IECEx Ex d	DJ
UL	UL
ULC	UC
CSA - Ex ia	IC
CSA - Ex d	DC
TR CU Ex ia	IG
TR CU Ex d	DG
TR CU - Ex ia Russian Fire	IGF*
TR CU - Ex d Russian Fire	DGF*
Chinese Ex ia	IQ†
Chinese Ex d	DQ†
INMETRO Ex d	DM

*For Russian Fire approval red housing and burning house duty label must be selected
†Not suitable for use in China on fire alarm systems

Entries	Code
M20	1
M25	2
½″ NPT	3
¾″ NPT	4
Other	5

Position	
Top	*T
Bottom	*B
RHS	*R
LHS	*L

*Prefix position with size code i.e. 1T 1B = M20 Top and Bottom

Duty label	Code
Fire breakglass	1
Push button	2
Fire push button	3
ESDO abandon	4
Burning house logo	5†
Other	O*
None	N

*Please specify
†Must be selected for Russian Fire approval

Tag label	Code
Required	Y*
Not required	N

*Please specify

Options	Code
Not required	N
LED	A
Resistor series	G*
Resistor EOL	H*
Diode	D*
3 pole c/o switch	T
4 pole c/o switch	F

*Please specify

Finish	Code
Red	R†
Blue	B
Yellow	Y
Yellow/black stripes	X
Special	S*

*Please specify
†Must be selected for Russian Fire approval