

# ZAB1-2 EXPLOSION PROOF BEACON



DS-172 Issue 10



Thank you for your interest in Ziztel - we are a UK based manufacturer of PAGA and Intercom products. Our systems are mainly designed for use in the Hazardous Oil, Gas and Petrochemical industries.

The ZAB1-2 is a cost effective high performance ATEX / IECEx certified flashing beacon which incorporates redundant tubes and telephone ring detection as standard. The solid state design eliminates moving parts and the electro/optic conversion provides high efficiency. A range of beacon colours are available ensuring compliance with international standards including IMO SOLAS, PFEER

## ZIZTEL ZAB1-2 FLASHING BEACON RANGE

*Corrosion proof all stainless steel construction – long through life, minimal maintenance*

*IP68 - 60 C to + 70 C Weather proof / environmentally rated – suitable for harsh climatic conditions*

*No moving parts – solid state controlled*

*Range of light sources - LED cluster or high security duplicated xenon tubes*

*Zone 1 ATEX and IECEx certified - safe for use in potentially explosive areas world-wide.*

The Ziztel ZAB1-2 is a rugged *explosion proof* electronic flashing beacon which employs either an LED or Xenon discharge tube light source to produce brilliant pulses of visible light. The unit is specified for safety applications where acoustic alarms are ineffective due to excessive ambient noise and provides high performance visual warning annunciation. For example use on life dependant critical applications (including service on PAGA Public Address and Alarm Systems) and is designed for reliable operation in aggressive climatic conditions on both land based and marine / offshore installations. The ZAB1-2 beacon is available in a range of colour optic lenses which are carefully designed to enhance available flash energy and therefore overall flashing beacon visibility. The unit utilises a totally rot proof stainless steel construction which minimises routine service and ensures low through life maintenance cycles. The light source eliminates moving parts and is guaranteed to deliver in excess of six million light pulses without tube assembly deterioration.

*Image left shows ZAB1-2 Exd version with integral termination chamber. Fixing brackets are available to enable simple, rapid vertical installation or wall / bulk head mounting.*



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## ZAB1-2 X - Xenon flash tube based light source X

This variant employs *duplicated* high security 21 Joule flash gas discharge tubes that deliver a brilliant pulse of high intensity light struck at one second intervals visible over a 360 degree envelope.

## ZAB1-2 L - LED based light source L

The LED version is equipped with a cluster of technology leading high power LED chips arranged in a quadrant, a microprocessor management subsystem clocks each cluster segment sequentially to deliver a highly effective attention getting moving beam of light again providing 360 degree coverage.

## ZAB1-2 e or d - Exe termination chamber / Exd termination options D E

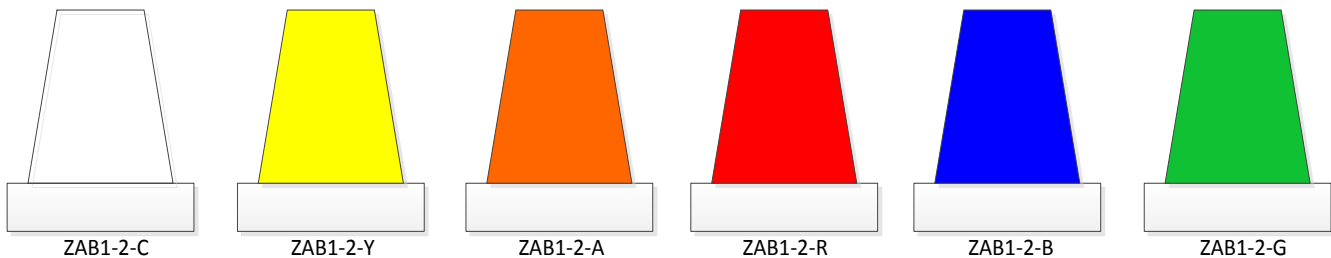
The ZAB1-2 can be delivered with either an auxiliary *Exe cable termination compartment* (adding suffix 'E' to the order code model number or, for lower cost applications, the field cables can be landed as 'direct' entries into the main Exd beacon vessel with the model D variant. Where required the unit can be delivered with pre formed fire resistant cable tail to speed on site installation.

Two 20mm isometric entries are pre-cut enabling engagement of standard certified cable gland.

## ZAB1-2 Telephone initiate

With Telephone Initiate specified the beacon can be connected to a telephone circuit and ring voltage detection initiates the beacon. Note that telephone initiate is a standard feature and there is no cost impact.

## ZAB1-2 C, Y, B, R, A, G - lens colour suffix



## ZAB1-2 24 / 48 / 115 / 230 - Mains supply input voltage preference

A range of input voltages are available ensuring compatibility with virtually all mains power supply systems. DC supply input 24 – 48 V, AC supply input 110 / 120 – 220 / 230 V

## ZAB1-2 Well glass guard protection option P

The ZAB1-2 employs a toughened well glass lens and is certified for safe operation without any further protection. However in applications where there is a known risk of severe well glass impact we advise the user to consider ordering the beacon with additional protection by specifying the option for a heavy duty stainless steel wire cage.

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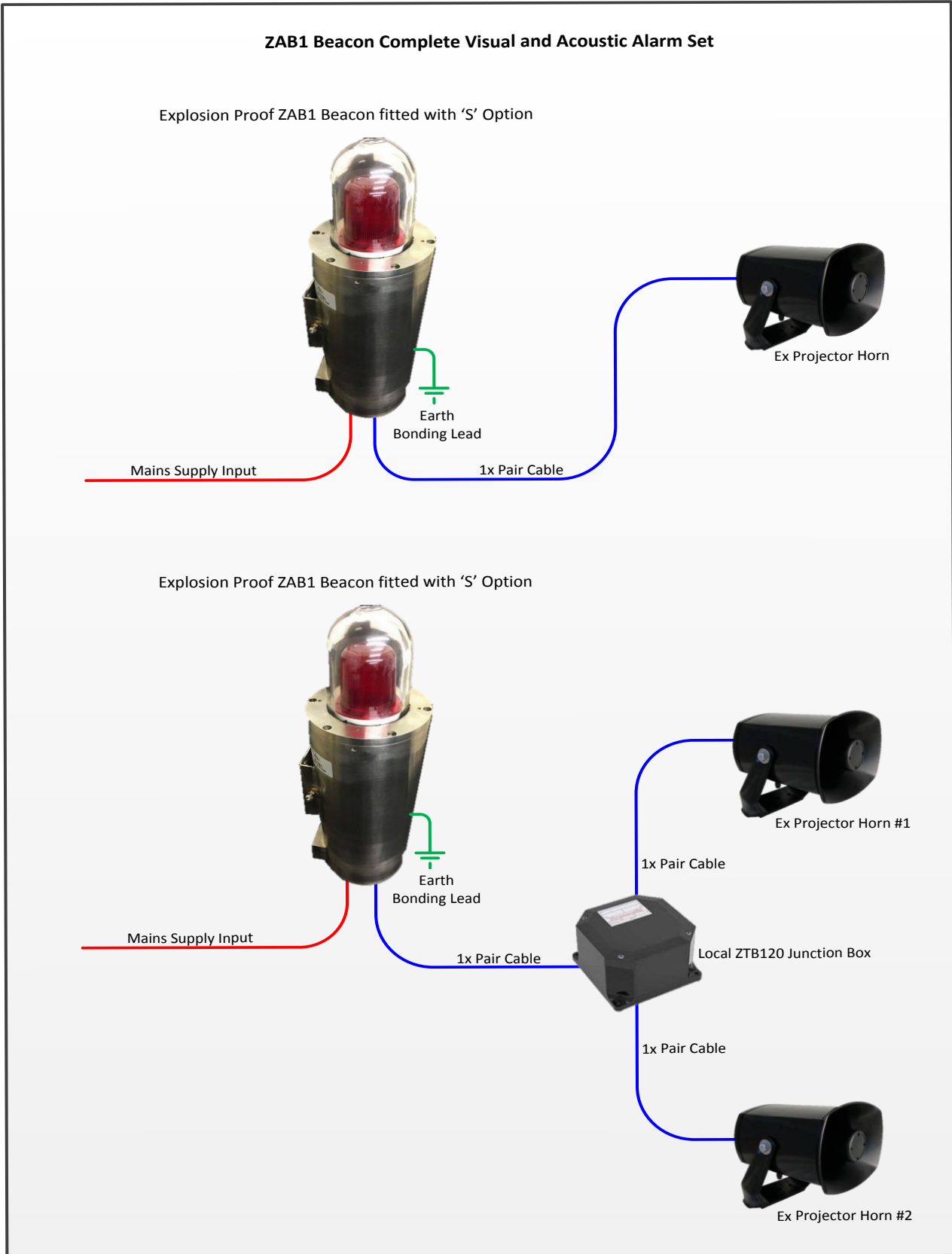
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## ZAB1-2 Integral siren option S

The ZAB1-2 S incorporates an alarm tone generator module which provides acoustic warning capability.

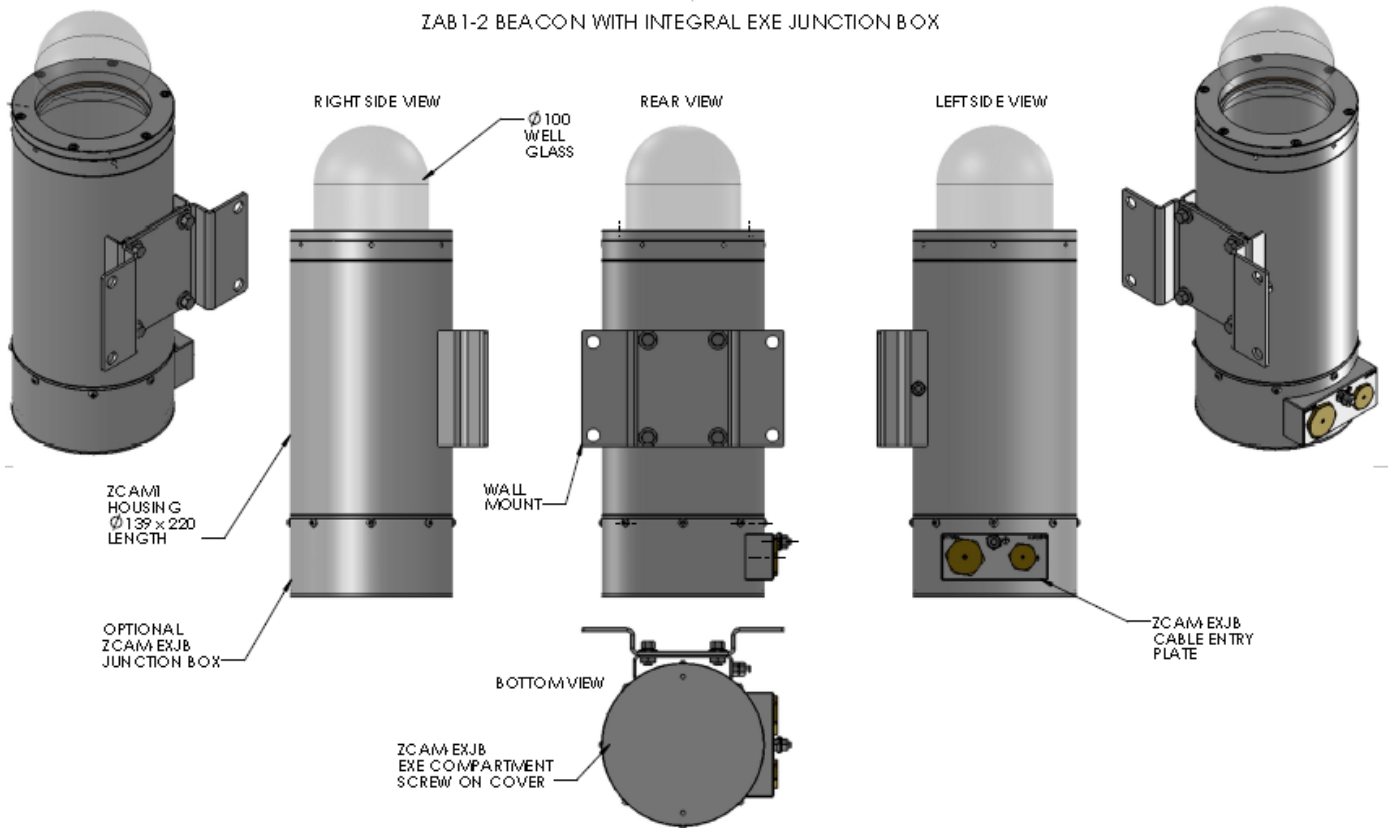


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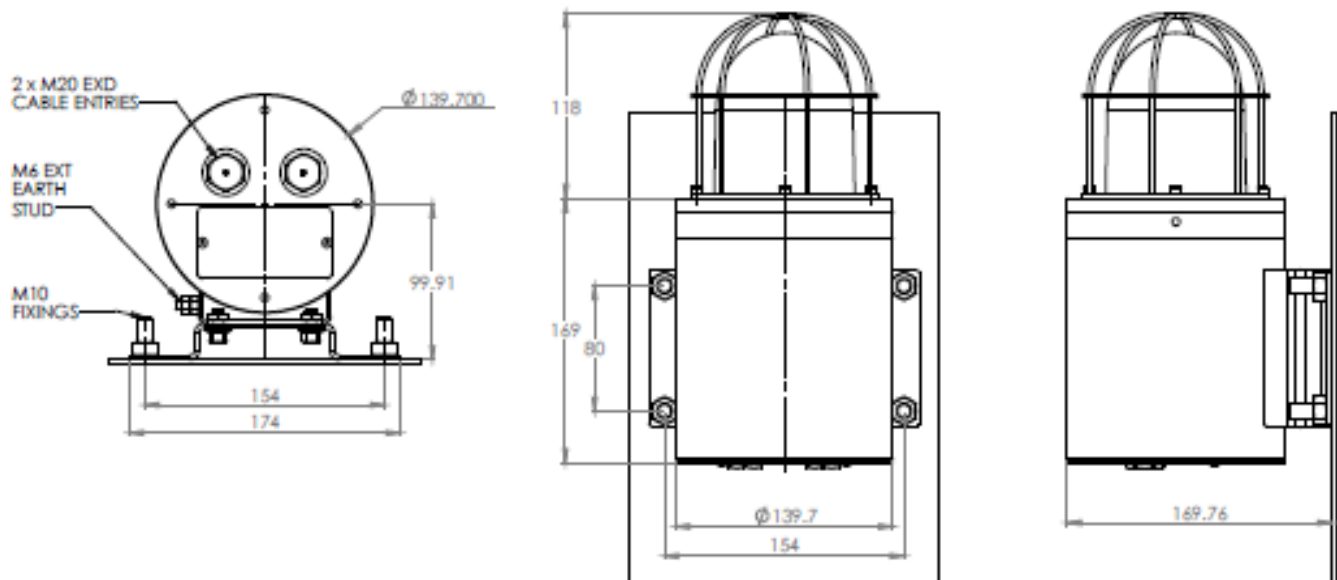
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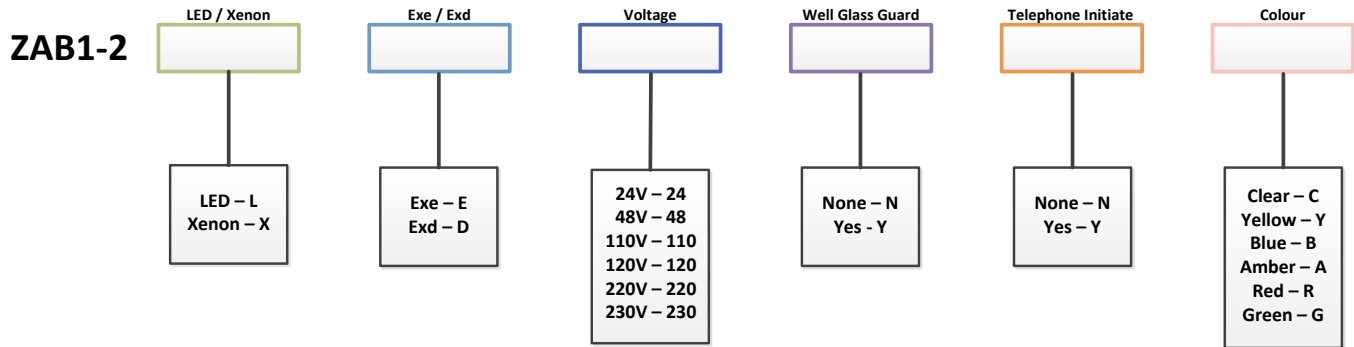
**General assembly ZABI-2 E Exe version shown below (alternative bracket is available to enable ceiling mounting) with optional separate termination compartment added to the base of the unit.**



**General assembly ZABI-2 Exd version shown below with optional 'P' well glass guard, (alternative bracket is available to enable ceiling mounting)**



## Ordering Requirements



**Example: ZAB1-2XD24YNB**

Xenon - Exd Termination Chamber - 24 Volts - With Well Guard - No Telephone Initiate - Colour Blue



*ZAB 1-2 Explosion proof xenon flashing beacons are available in a range of lamp colours which are assigned by fitting of a specially designed Fresnel lens to maximise optical performance.*

*Xenon based variants employ duplicated flash discharge tubes for additional security making the ZAB1-2 beacon an ideal choice for safety critical applications.*

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Technical Specification	
Light Source	Dual xenon discharge tube or High intensity LED cluster
Supply Voltage	110 /120- 220 /240 VAC 50 / 60 Hz ; 24 – 48 V.D.C
Tolerance	+10% / -15%
Consumption	30 Watts / VA (60 Watts / VA peak); 50 Watts 'S' option
Telephone ring voltage range	20 to 100V RMS
Telephone ring cadence	On time 1 second minimum, off or silent time 3 seconds maximum
'S' Option	Drive to up to two 100 Volt line projector horns maximum sound pressure level at 1 metre is +112 dBA
Flash rate	1 Hz
Duty cycle	Continuous
Flash energy – xenon tube set	21 joule
Temperature Range	-60 °C - +70 °C
IP Rating	IP66
Weight	6Kg
Dimensions Exd variant	170 x 290 mm
Dimensions Exe variant	170 x 320 mm
Gland entry	2 x 20 mm isometric
Mounting attitude	Vertical or horizontal
Enclosure material	Rot proof 316g stainless steel
Enclosure colour	Natural
Lens colour	Red, Yellow, Green, Blue, Clear, Amber
Gland Entry	2 x M20 Isometric
Location	Hazardous area Zone 1 IIC T4
Certification	ATEX and IECEx

See also:-

DS297 for details of the ZAB-01 – M2 dual colour xenon flashing beacon.

DS298 for details of the ZAB-01 – M3 triple colour xenon flashing beacon.

TDS010 Technical bulletin sheet which describes ZAB1-2 implementation in PAGA, Telephone PBX and alarm / siren applications.

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