

# ZAB1- M2 EX BEACON

DS-297 Issue 06



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-M2 is a high performance ATEX / IECEx certified flashing beacon which incorporates processor controlled light sources. The solid state design eliminates moving parts and the electro/optic conversion provides high efficiency. The unit incorporates two different colour light sources which can each be independently addressed; an optional alarm tone sub system can be fitted enabling a complete self-contained opto – acoustic signaling system.

## ZAB1-M2 MULTI- COLOUR FLASHING BEACON

*Totally corrosion proof all stainless-steel construction – long through life, minimal maintenance*

*Optional colour selection over 1 x pair cable – major cost saving over conventional multi core-based systems*

*No moving parts - microprocessor controlled*

*Multiple light sources – Duplicated xenon discharge tube sets for each colour – choice of flash energy - 10, 15, 21 Joules*

*Zone 1 ATEX and IECEx certified - safe for use in hazardous areas*

The Ziztel ZAB1-M2 is a rugged explosion proof electronic flashing beacon which employs xenon light sources to selectively produce brilliant pulses of visible coloured light. The unit is specified for safety applications where acoustic alarms are ineffective due to excessive ambient noise and provides effective high performance visual warning annunciation. ZAB1 – M2 can be specified for use on safety critical applications as part of a PAGA Public Address and Alarm System. ZAB1-M2 is designed for reliable service on both land based and marine / offshore installations.

The ZAB1-M2 beacon can be equipped with up to two different colour sources within the single housing realising major cost savings over conventional discrete multiple beacon arrays. IMO SOLAS / PFEER colour set is available i.e. Red – Yellow. Colour is assigned by specially designed Fresnel optical lens which provides highly efficient light dispersion. The unit is capable of initiating colour selection by a two-pair control cable which also includes mains power supply or ZAB-M2-A can be specified allowing energisation with control over a *single* pair of field cable conductors. The maximum number of devices on a single



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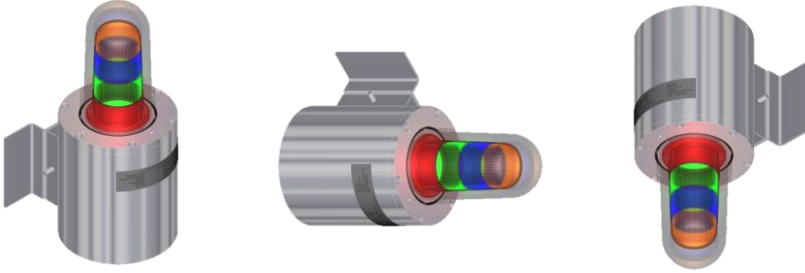
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circuit is dependent on the cross-sectional area of the field cable conductors and maximum volt drop tolerance, we advise no more than forty units on a single circuit in any case to improve security.

The unit utilises a totally corrosion proof stainless steel construction which minimises routine service and ensures low through life maintenance cycles.

The ZAB1 M range can be mounted in any plane without de rating: -



### ZAB1-M2 colour code - colour suffix

Red	R
Orange	O
Yellow	Y
Blue	B
Green	G
White	W
Amber	A
Violet	V

### Mains supply input voltage preference

#### ZAB1-M2 24 / 48 / 115 / 230

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

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## Protection guard

### ZAB1-M2Well glass guard protection

The ZAB1-M2 employs a toughened well glass lens which is equipped with a stainless-steel well glass protection guard as standard.



## Multi-colour operation

### ZAB1-M3 and M4 variants

The ZAB1-M3 and 4 version of this beacon enable three and four separate colour beacons integrated into a single housing. See DS – 276 and 297 for more details.

## Integral alarm tone sub system operation

### ZAB1-M - S

The ZAB1 – M - series beacons can be specified with integral alarm tone generator; the unit allows connection of an extension explosion proof horn up to 25 Watt rated 100 V line to enable broadcast sound pressure level in excess of 117dBA.

For lower power requirements the Ziztel bulkhead mount ZLSC-06 delivers up to 96 dBA sound pressure level.



ZLSC-06 explosion proof cabinet alarm sounder extension

The alarm tone generator is configurable to enable a range of alarm tone frequencies / cadences to be accommodated. Each colour can be assigned a unique alarm tone set.

## Addressable type

### ZAB1-M – A

Two wire field cable – operates in conjunction with LTDO22 Line termination device to allow multiplexed addressable operation

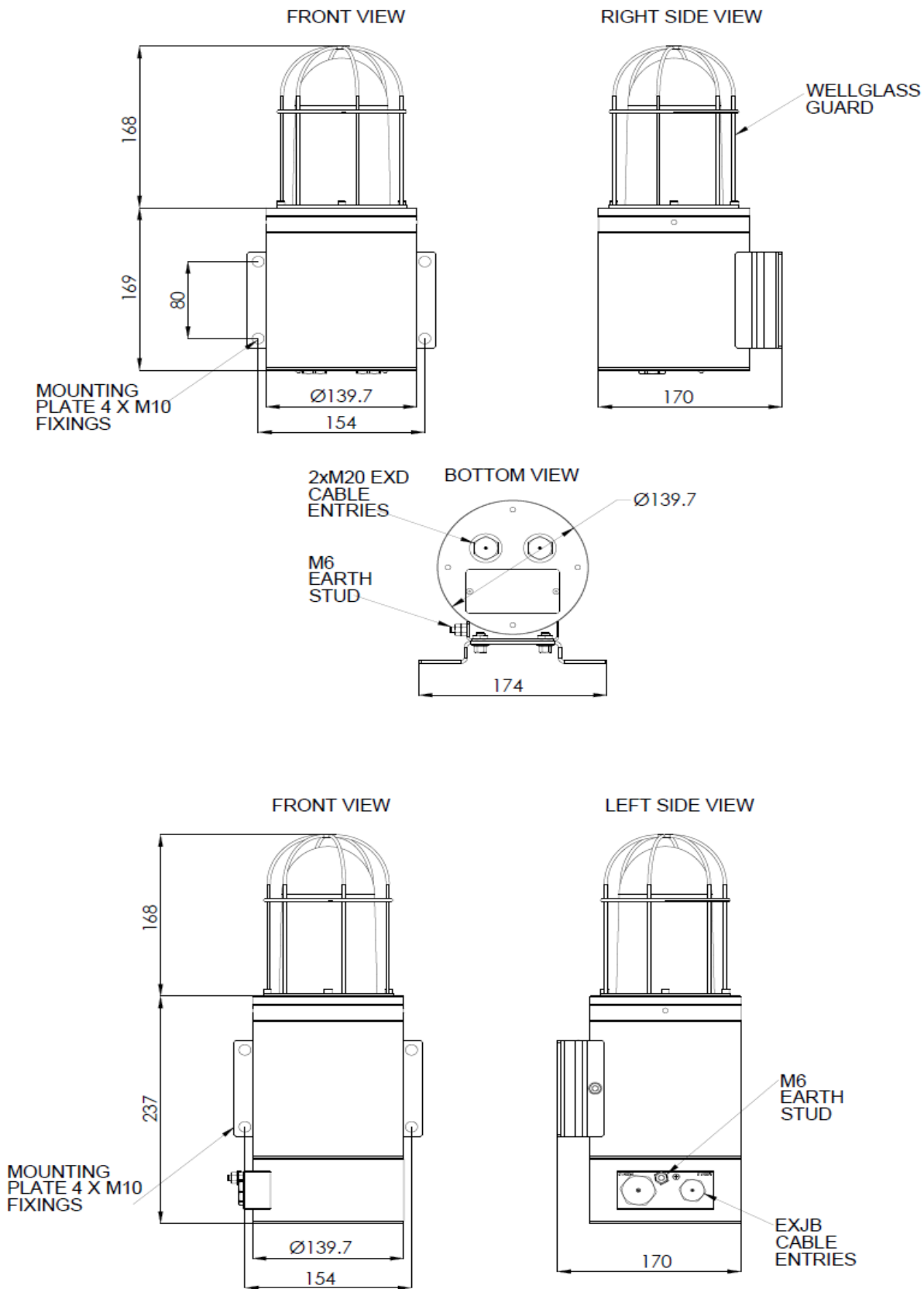
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General assembly ZAB1-M2 Exd version shown top. Exe version with added junction box shown bottom

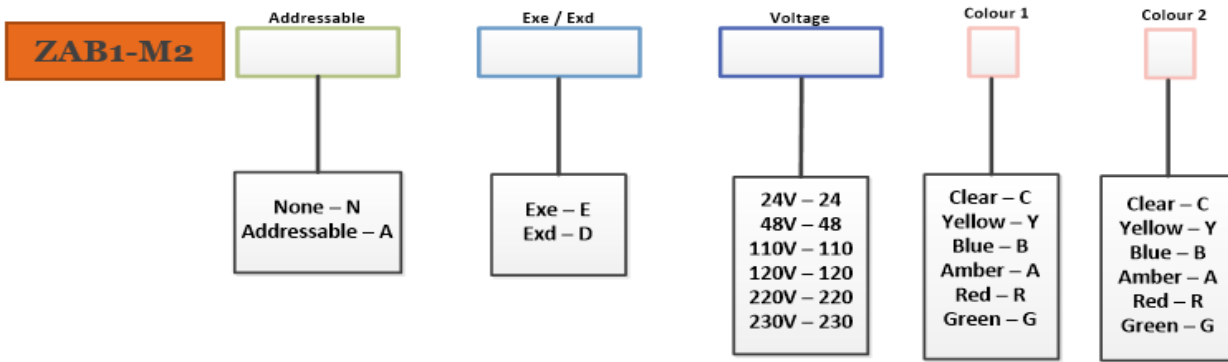


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## Ordering Requirements:



## Technical Specification

Light Source	High intensity Xenon tubes
Security	Twin tubes for each colour – total four xenon discharge tubes
Supply Voltage	110 / 120- 220 / 240 VAC 50 / 60 Hz / 270 VAC 50 / 60 Hz
	To order - 24 VDC to 48 VDC
Tolerance	+10% / -15%
Consumption	30 Watts / VA (60 Watts / VA peak)
Connectivity	4 x field conductors Live / Live / Common Neutral / Earth 5 x field conductors Live / Live / Neutral / Neutral / Earth 3 x field conductors +ve / +ve / Common oV 4 x field conductors +ve / +ve / oV / oV 2 conductors 'A' Addressable type
Flash rate	1 pulse per second
Duty cycle	Continuous
Flash energy	21 Joules / colour set = suffix 21 15 Joules / colour set = suffix 15 10 Joules / colour set = suffix 10
Alarm tone sub system option	One alarm tone type per colour
Alarm output	100 Volt line
Maximum load	25 Watts
Temperature Range	-60 °C - +70 °C
IP Rating	IP66 / 68
Weight	4.5Kg Exd; 6Kg Exde
Dimensions Exd variant	170 wide x 337 mm high
Dimensions Exe variant	170 wide x 405 mm high
Gland entry	2 x 20 mm isometric cable gland entries
Mounting attitude	Vertical well glass up, vertical well glass down or horizontal
Enclosure material	Corrosion proof 316 l stainless steel
Enclosure colour	Natural
Colour selection - maximum 2 colours	Violet, Red, Yellow, Green, Blue, White, Amber, split White / Green, Violet
Colour definition	UV Ultraviolet light resistant Fresnel optic lens – no painted well glasses
Maximum cable termination cross sectional area	Exd variant 2.5 mm CSA / conductor Exe variant 4 mm CSA / conductor
Location	Hazardous area Zone 1 IIC T4
Certification	IECEX and ATEX certified

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