

# D1xB2X05 Explosion Proof Xenon Strobe Beacon 5J

The D1xB2X05 is a globally approved explosion proof 5 Joule Xenon beacon. The robust IP66, Type 4/4X corrosion proof LM6 marine grade aluminium alloy enclosure ensures suitability for all Class I/II Div 1, Zone 1, 2, 21 & 22 applications.

Approved to EN54-23, MER, MED, UL1638 and CAN/ULC S526 for fire alarm use the D1xB2X05 beacons produce a high output Xenon flash required for effective signalling. The field replaceable UV stable PC colour filter enhances the strobe output. The robust enclosure features a threaded flame path and four cable entries. Mounting options include surface via integrated lugs, pendant or via addition of optional multi direction stainless steel bracket. SIL1 & SIL2 Route 2H compliant to IEC61508 (2010), with optional diagnostic module for Route 1H SIL2 compliance.

## Features

- Four flash rates: 1Hz, 1.3Hz, 1.5Hz & double flash
- Automatic synchronisation on multi-beacon system
- A4 316 Stainless Steel guard included as standard
- UV stable polycarbonate lens colour filter – field replaceable
- Corrosion proof marine grade aluminium enclosure
- EN54-23 tested, UK & EU CPR compliant
- UL 1638 & CAN/ULC S526 signaling device for Fire Alarm

## Approvals

- UL/cUL/ULC – File ref: E245313
- IECEx Certificate: IECEx ULD 19.0006X
- ATEX Certificate: DEMKO 19 ATEX 2009X
- UKCA certificate: UL21UKEX2130X
- CSFM listing: 7300-2279:0508
- CCCEx certificate: 2022122309114969
- TR CU Ex EAC certificate: EAC RU C-GB.AA.71.B.00273/20
- PESO CCOE certified: P493433-1
- EU CPR certificate 2831-CPR-F4859/99
- UK CPR certificate: 0832-UKCA-CPR-F1783/854
- MED certificate: MEDB000085K
- MER certificate: MERB000085K
- SIL1 & SIL2 compliant to IEC61508 (2010)

## Coding

- NEC Class / Zone  
Class I Zone 1 AEx db IIC T4 Ta -55°C to +80°C (T5: +75°C)  
Class I Zone 1 AEx db IIC T6 Ta -55°C to +60°C (DC only)  
Zone 21 AEx tb IIIC T99°C Ta -55°C to +80°C
- CEC Class / Zone  
Ex db IIC T4 Ta -55°C to +80°C (T5: +75°C)  
Ex db IIC T6 Ta -55°C to +60°C (DC only)  
Ex tb IIIC T99°C Ta -55°C to +80°C
- NEC / CEC Class / Div  
Class I Div 1 Group ABCD T5 Ta -55°C to +80°C (T6: +70°C)  
Class II Div 1 Group EFG T5 Ta -55°C to +80°C
- IECEx / ATEX  
II 2G Ex db IIC T4 Gb Ta -55°C to +80°C (T5: +75°C)  
II 2G Ex db IIC T6 Gb Ta -55°C to +60°C (DC only)  
II 2G Ex db IIC T100°C Gb Ta -55°C to +80°C



## Specification

Source:	Xenon Strobe
Energy:	5 Joules (5Ws)
Flash rates:	1Hz flash (60 fpm) 1.3Hz flash (80 fpm) 1.5Hz flash (90 fpm) Double flash (120 fpm)
Eff. Intensity cd:	20.44cd UL1638 Private mode fire
Eff. Intensity cd:	156.65cd measured ref to I.E.S
Eff. Intensity cd:	250 cd – calculated from energy (J)
Peak Intensity cd:	500,000 cd – calculated from energy (J)
Lens colours:	Amber, Blue, Clear, Green, Magenta, Red & Yellow
Voltage DC:	12Vdc (10-14Vdc), 24V dc (20-28Vdc), 48Vdc (42-54Vdc)
Voltage AC:	115Vac (110-120Vac), 230Vac (220-240Vac)
In-rush:	828mA within 6ms @ 24Vdc
Safety Integrity Level:	Product version A: SIL1 and SIL2 Route 2H Product version S: SIL2 Route 1H with diagnostics SFF: >99% See install manual for reliability & functional safety data
Ingress protection:	IP rating per EN60529:IP66/67 Type rating per UL50E/NEMA250:4/4X/3R/13
Lens material:	High impact Borosilicate glass
Enclosure material:	Marine grade LM6 aluminium alloy
Enclosure colour:	Red or Grey, custom colours available on request
Enclosure finish:	Chromate & powder coated finish
Cable entries:	Side: 2 × 3/4"NPT & 2 × M20x1.5mm Pendant: 1 × 3/4"NPT Stopping plugs included
Stopping plugs:	Brass, Nickel Plated or Stainless Steel
Terminals:	0.5 – 2.5mm <sup>2</sup> (20-14AWG) – 12AWG solid core conductor Duplicated terminals
Line monitoring:	Blocking diode included EOL Min. 500 Ohm 2W, or 3k3 Ohm 0.5W resistor or diode (DC versions) can be fitted
Ground/Earth stud:	M5
Enclosure volume:	<2 litres
Installation temp:	-55 to +80°C [-67° to +176°F]
Storage temp:	-55 to +80°C [-67° to +176°F]
Relative humidity:	99% – tropicalised/conformal coated electronics
MTBF DC:	198.88 years / 1,742,161 hours – MIL 217
MTBF AC:	253.68 years / 2,222,223 hours – MIL 217
Weight:	3.2kg/7.1lbs

\*All candela data is representative of performance with clear lens at optimum voltage.

## Part Codes

Part Code:	Identifier:	Description:
Product type:	D1xB2	
Type:	X05	Xenon Strobe Beacon 5 Joule
Voltage:	DC012	12Vdc (10-14Vdc)
	DC024	24Vdc (20-28Vdc)
	DC048	48Vdc (42-54Vdc)
	AC115	115Vac (110-120Vac)
	AC230	230Vac (220-240Vac)
Cable entries: [e]	M	2 × 3/4"NPT, 2 × M20, 1 × 3/4"NPT
	B	2 × 1/2"NPT – adaptors, 2 × 3/4"NPT, 1 × 3/4"NPT
	E	1 × 1/2"NPT – adaptors, 1 × M20, 2 × 3/4"NPT, 1 × 3/4"NPT
Stopping plug/adaptor material: [m]	B	Brass
	N	Nickel plated brass
	S	Stainless steel
Guard material: [s]	1	A4 316 Stainless Steel
	3	A4 316 St/St with Equip. Tag
	5	A4 316 St/St with Equip. Tag and Duty Label
Product version: [v]	A	UL, cUL, ULC, IECEx, ATEX, CCCEX, Ex EAC PESO, CSFM, MED, MER – SIL1 & SIL2 Route 2H
	S	UL, cUL, ULC, IECEx, ATEX, CCCEX, Ex EAC PESO, CSFM (24Vdc only) SIL2 Route 1H with diagnostics SFF: >99%
	T	IECEx, ATEX, Ex EAC, PESO – Telephone/Relay Initiate
Product option: [o]	1	Standard product
	X	Custom configuration – contact E2S
Enclosure colour: [x]	R	Red
	G	Grey
	S	Special colour – contact E2S
Lens colour: [y]	A	Amber
	B	Blue
	C	Clear
	G	Green
	M	Magenta
	R	Red
	Y	Yellow

### Note:

For EN54-23 tested UK & EU CPR, MED & MER compliant 24Vdc variant, select product version A with Red or Clear lens

### Accessories:

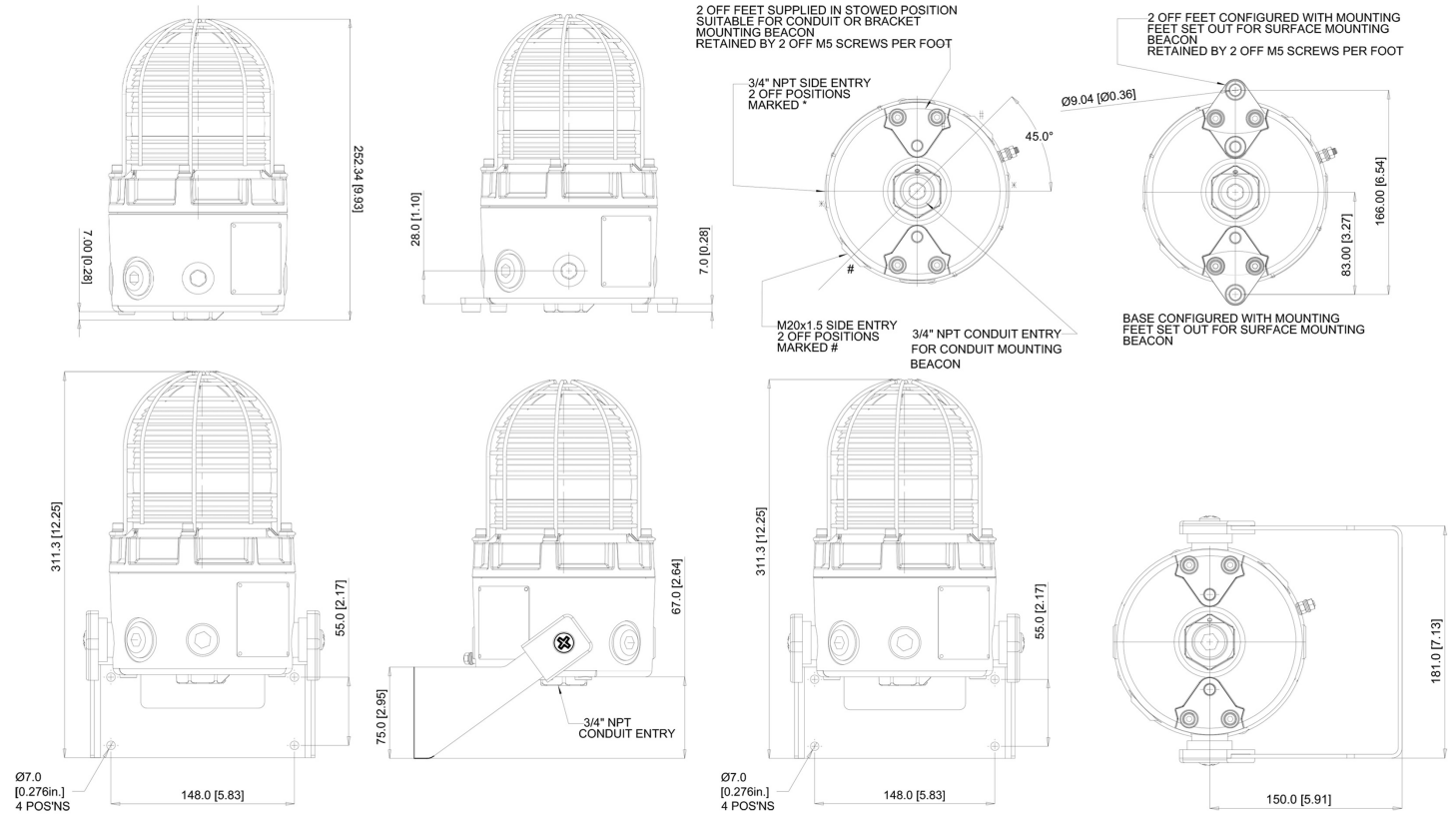
SP77-0001-A4-R	Multi angle bracket A4 (316) for Red enclosure
SP77-0001-A4-G	Multi angle bracket A4 (316) for Grey enclosure
SP65-0001-A4	Pole Mount Bracket Kit St/St A4 (316)
SP65-0003-A4	Sunshade – St/St A4 (316)

### Spares:

SP77-0002	Xenon flash tube assembly
SP77-0015-R	Pack of 2 x Mounting Lugs – Red enclosure
SP77-0015-G	Pack of 2 x Mounting Lugs – Grey enclosure

## Current Consumption

Nominal Voltage:	Voltage range:	Nominal current:	Max. current:	In-rush:
12Vdc	12-14Vdc	585mA	600mA	-
24Vdc	20-28Vdc	295mA	350mA	828mA <6ms
48Vdc	42-54Vdc	145mA	150mA	1642mA <7ms
115Vac	110-120Vac 50/60Hz	140mA	200mA	-
230Vac	220-240Vac 50/60Hz	70mA	100mA	-



## Assemblies

The D1xB2X05 is available as a plated assembly configured with a D1x type alarm horn sounder and additional D1x type Xenon strobe or LED beacons with or without a D1xJ2 Ex d junction box. Contact E2S for further information.