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
- UL Marine approved

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/UK CPR certs: 2831-CPR-F4859/99 / 0832-UKCA-CPR-F1783/854
- MED/MER cert: MEDB000085K / MERB000085K
- DNV certificate: TAA00003DF

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, T6: +60°C)
  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 2D Ex tb IIIC T104°C Db Ta -55°C to +80°C
  See product manual for full voltage specific coding.

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 ISO 12944-6 CX, C5VH & C5H
Cable entries:	Side: 2 × 3/4"NPT & 2 x M20x1.5mm Pendant: 1 × 3/4"NPT Stopping plugs included
Stopping plugs:	Brass, Nickel Plated or Stainless Steel
Terminals:	0.5 – 2.5mm² (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 DC024 DC048 AC115 AC230	12Vdc (10-14Vdc) 24Vdc (20-28Vdc) 48Vdc (42-54Vdc) 115Vac (110-120Vac) 230Vac (220-240Vac)
Cable entries: [e]	M B E	2 × 3/4"NPT, 2 x M20, 1 × 3/4"NPT 2 × 1/2"NPT – adaptors, 2 × 3/4"NPT, 1 × 3/4"NPT 1 × 1/2"NPT – adaptors, 1 x M20, 2 × 3/4"NPT, 1 × 3/4"NPT
Stopping plug/ adaptor material: [m]	B N S	Brass Nickel plated brass Stainless steel
Guard material: [s]	1 3 5	A4 316 Stainless Steel A4 316 St/St with Equip. Tag A4 316 St/St with Equip. Tag and Duty Label
Product version: [v]	A	UL, cUL, ULC, IECEx, ATEX, Ex EAC, PESO, CSFM, MED, MER, DNV – SIL1 & SIL2 Route 2H
	S	UL, cUL, ULC, IECEx, ATEX, Ex EAC, PESO, CSFM, DNV (24Vdc only) SIL2 Route 1H with diagnostics SFF: >99%
	T	IECEx, ATEX, Ex EAC, PESO, DNV – Telephone/Relay Initiate
	J	CCCEx, UL, cUL, ULC, IECEx, ATEX, Ex EAC, PESO, CSFM, MED, MER, DNV – SIL1 & SIL2 Route 2H
Product option: [o]	1 X	Standard product Custom configuration – contact E2S
Enclosure colour: [x]	R G S	Red Grey Special colour – contact E2S
Lens colour: [y]	A B C G M R Y	Amber Blue Clear Green Magenta Red Yellow
Note:	For EN54-23 tested UK & EU CPR, MED & MER compliant 24Vdc variant, select product version A with Red or Clear lens	

Accessories:

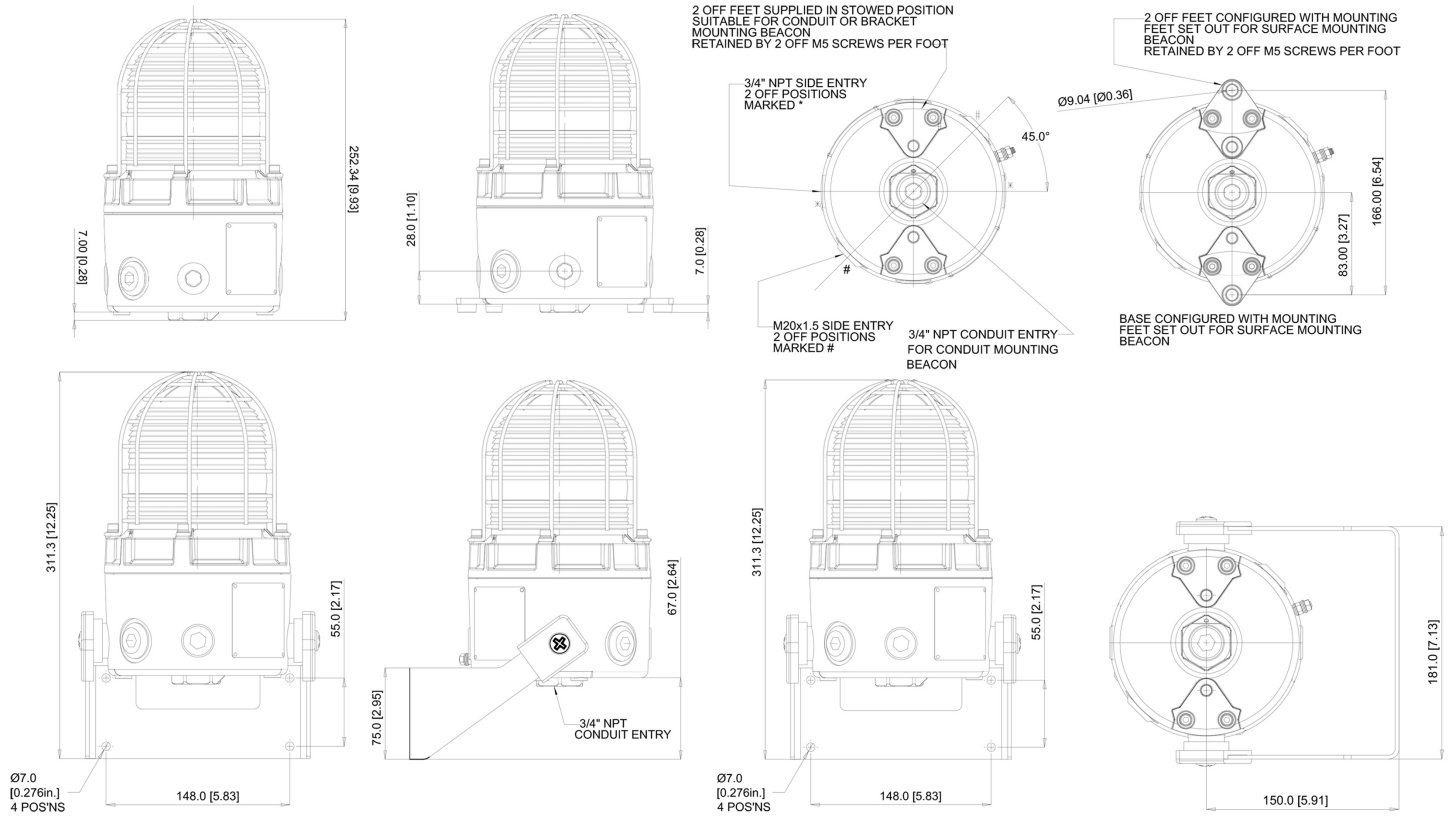
SP77-0001-A4-R	Multi angle bracket A4 (316) for Red enclosure
SP77-0001-A4-G	Multi angle bracket A4 (316) for Grey enclosure
SP65-0001-A4	Pole Mount Bracket Kit St/St A4 (316)
SP65-0003-A4	Sunshade – St/St A4 (316)

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.

No liability is accepted for any consequence of the use of this document. The technical specification of this unit is subject to change without notice due to our policy of continual product development. All dimensions are approximate. This unit is sold subject to our standard conditions of sale, a copy of which is available on request.