D1xB2X21 Explosion Proof Xenon Strobe Beacon 21J

The D1xB2X21 is a globally approved explosion proof 21 Joule Xenon beacon. The robust 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 UL1638 and CAN/ULC S526 for fire alarm use the D1xB2X21 beacons produce a high output Xenon flash required for effective signalling in environments with elevated levels of ambient light. The field replaceable colour filter enhances the strobe and is constructed from UV stable PC. The robust enclosure features a threaded flame path, four cable entries. Mounting options include surface via integrated lugs, pendant or by addition of optional multi direction stainless steel bracket. SIL1 & SIL2 Route 2H compliant to IEC61508 (2010) as standard.

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
- 4 x side, 1 x pendant cable entries – stopping plugs included
- Corrosion proof marine grade aluminium enclosure
- 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
- CCCEx certificate: 2022122309114969
- TR CU Ex EAC certificate: EAC RU C-GB.AA.71.B.00273/20
- PESO CCOE certified: P493433-1
- CSFM listing: 7300-2279:0508

Coding

- NEC Class / Zone
  Class I Zone 1 AEx db IIC T3 Ta -55°C to +80°C (AC: +60°C)
  Class I Zone 1 AEx db IIC T4 Ta -55°C to +45°C (AC +50°C)
  Zone 21 AEx tb IIIC T181°C Ta -55°C to +80°C (AC: T153°C +60°C)
- CEC Class / Zone
  Ex db IIC T3 Ta -55°C to +80°C (AC: +60°C)
  Ex db IIC T4 Ta -55°C to +45°C (AC: +50°C)
  Ex tb IIIC T181°C Ta -55°C to +80°C (AC: T153°C +60°C)
- NEC / CEC Class / Div
  Class I Div 1 Group ABCD T3B Ta -55°C to +80°C (DC only)
  Class I Div 1 Group ABCD T3C Ta -55°C to +75°C (AC: +60°C)
  Class I Div 1 Group ABCD T4 Ta -55°C to +50°C (AC: T4 +55°C)
  Class II Div 1 Group EFG T3C Ta -55°C to +40°C (AC: T4)
  Class III Div 1 Ta -55°C to +80°C (AC: +40°C)
- IECEx / ATEX
  II 2G Ex db IIC T3 Gb Ta -55°C to +80°C (AC: +60°C)
  II 2G Ex db IIC T4 Gb Ta -55°C to +45°C (AC: +50°C)
  II 2D Ex tb IIIC T169°C Db Ta -55°C to +80°C (AC: T141°C +60°C)



Specification

Source:	Xenon Strobe – Single or Dual
Energy:	21 Joules (21Ws)
Flash rates:	1Hz flash (60 fpm) 1.3Hz flash (80 fpm) 1.5Hz flash (90 fpm) Double flash (120 fpm)
Eff. Intensity cd:	215.85cd UL1638 Private mode fire
Eff. Intensity cd:	1,250.66cd measured ref to I.E.S
Eff. Intensity cd:	1,050 cd – calculated from energy (J)
Peak Candela:	2,100,000 cd – calculated from energy (J)
Lens colours:	Amber, Blue, Clear, Green, Magenta, Red & Yellow
Voltage DC:	24Vdc (20-28Vdc), 48Vdc (42-54Vdc)
Voltage AC:	115Vac (110-120Vac), 230Vac (220-240Vac)
In-rush:	1508mA within 5ms @ 24Vdc
Safety Integrity Level:	SIL1 and SIL2 Route 2H IEC61508 (2010)
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:	155.52 years / 1,362,398 hours – MIL 217
MTBF AC:	246.02 years / 2,155,173 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:	X21	Xenon Strobe Beacon 21 Joule
Voltage:	DC024 DC048 AC115 AC230	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 – SIL1 & SIL2
	U	Dual Xenon Tube – IECEx, ATEX, Ex EAC, PESO, CSFM – SIL1 & SIL2
	J	CCCEx, UL, cUL, ULC, IECEx, ATEX, Ex EAC, PESO, CSFM – SIL1 & SIL2
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

Accessories:

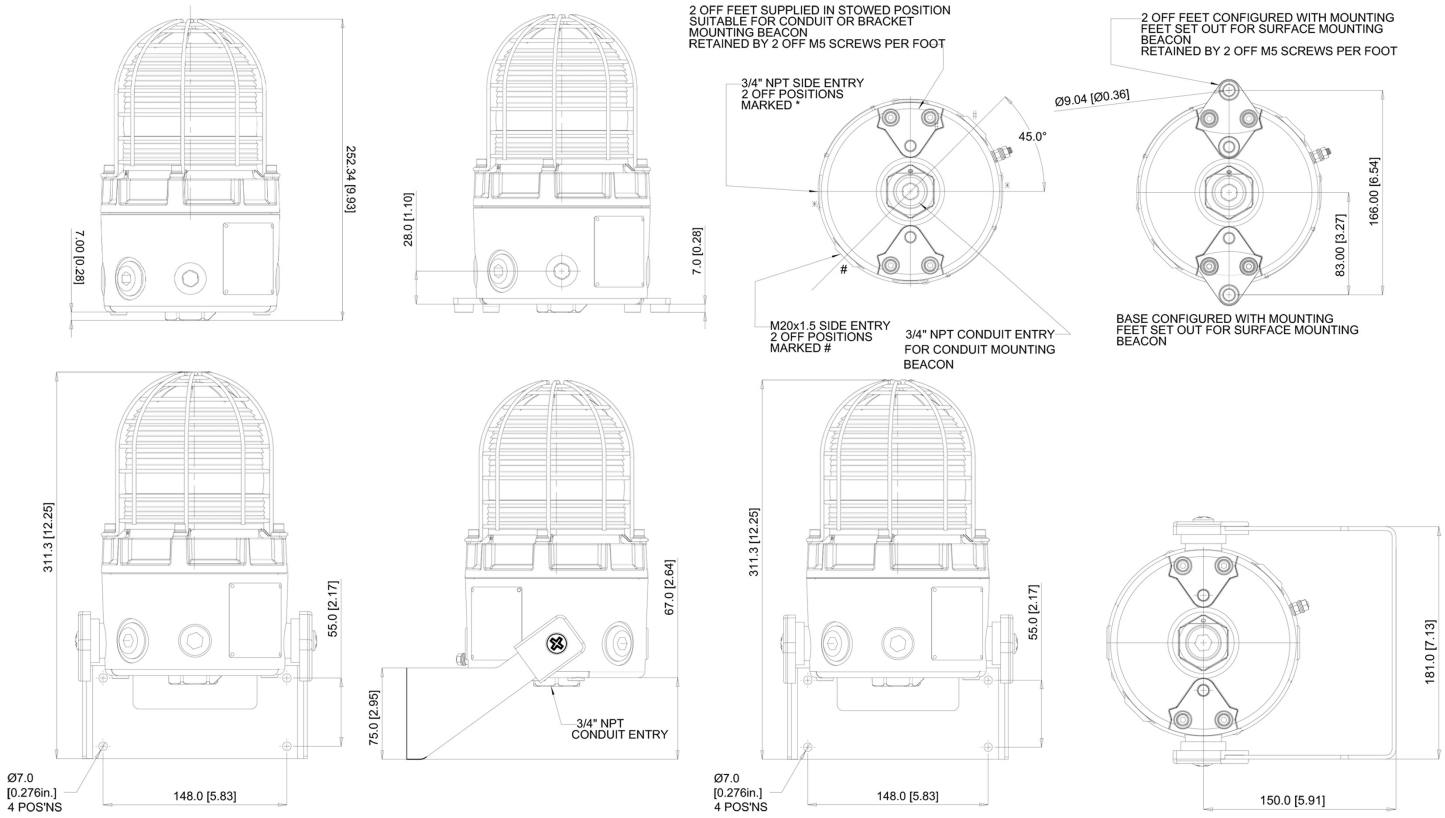
SP77-0001-A4-R	Multi angle bracket A4 (316) for Red enclosure
SP77-0001-A4-G	Multi angle bracket A4 (316) for Grey enclosure
SP65-0001-A4	Pole Mount Bracket Kit St/St A4 (316)
SP65-0003-A4	Sunshade – St/St A4 (316)

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:
24Vdc	20-28Vdc	1130mA	1240mA	1508mA <6ms
48Vdc	42-54Vdc	530mA	560mA	2110mA <4ms
115Vac	110-120Vac 50/60Hz	500mA	530mA	-
230Vac	220-240Vac 50/60Hz	195mA	270mA	-



Assemblies

The D1xB2X21 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.