1-21-030 / GNEx: GRP explosion/flameproof

GNExB2X05 Xenon Strobe Beacon

The GNExB2X05 is a globally approved explosion proof 5 Joule Xenon beacon. The robust corrosion proof GRP enclosure and extended temperature range ensures suitability for all Zone 1, 2, 21 & 22 and Class I Div 2 hazardous location applications.

The GNExB2X05 beacons produce a high output Xenon flash required for effective signalling in environments with elevated levels of ambient light. The optically enhanced field replaceable colour filter optimises the strobe output and is constructed from UV stable PC. The GRP enclosure features a threaded flame path, triple cable entries and a large termination area – all of which significantly reduce installation time. SIL1 & SIL2 Route 2H compliant to IEC61508 (2010) as standard, 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 systems
- User replaceable Xenon tube secured against shock & vibration
- A4 316 Stainless Steel guard included as standard
- UV stable polycarbonate lens colour filter – field replaceable
- 3 x cable entries
- Stopping plugs included
- Robust corrosion proof GRP (glass reinforced polyester) enclosure
- UL Marine approved

Approvals

- UL/cUL – File ref: E245313
- IECEx Certificate: IECEx ULD 15.0003X
- ATEX Certificate: DEMKO 15 ATEX 1448X
- UKCA certificate: UL21UKEX2136X
- PESO CCOE certified: P579164
- SIL1 & SIL2 compliant to IEC61508 (2010)

Coding

- IECEx / ATEX
  II 2G Ex db IIC T5 Gb Ta -50°C to +70°C (AC: T4)
  II 2G Ex db IIC T6 Gb Ta -50°C to +60°C (AC: +40°C)
  II 2D Ex tb IIIC T89°C Db Ta -50°C to +70°C (AC: T110°C)
- NEC Class / Zone
  Class I Zone 1 AEx db IIC T5 Ta -50°C to +70°C (AC: +55°C)
  Class I Zone 1 AEx db IIC T6 Ta -50°C to +60°C (AC: +40°C)
- CEC Class / Zone
  Ex db IIC T5 Ta -50°C to +70°C (AC: +55°C)
  Ex db IIC T6 Ta -50°C to +60°C (AC: +40°C)
- NEC / CEC Class / Div
  Class I Div 2 Group ABCD T5 Ta -50°C to +70°C (AC: +55°C)
  Class I Div 2 Group ABCD T6 Ta -50°C to +60°C (AC: +40°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:	134.35cd measured ref to I.E.S
Peak Candela:	30,451 cd – 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:	UV stable GRP (glass reinforced polyester)
Enclosure colour:	Natural Red
Enclosure finish:	Natural – can be painted in alternative colours
Cable entries:	Side: 3 x M20x1.5mm Stopping plugs included
Stopping plugs:	Brass, Nickel Plated or Stainless Steel
Terminals:	0.5 – 2.5mm² (20-14 AWG) 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:	M4
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Enclosure volume:	<2 litres
Installation temp:	-50° to +70°C (-58°F to +158°F)
Storage temp:	-50° to +70°C (-58°F to +158°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:	3.5kg/7.7lbs

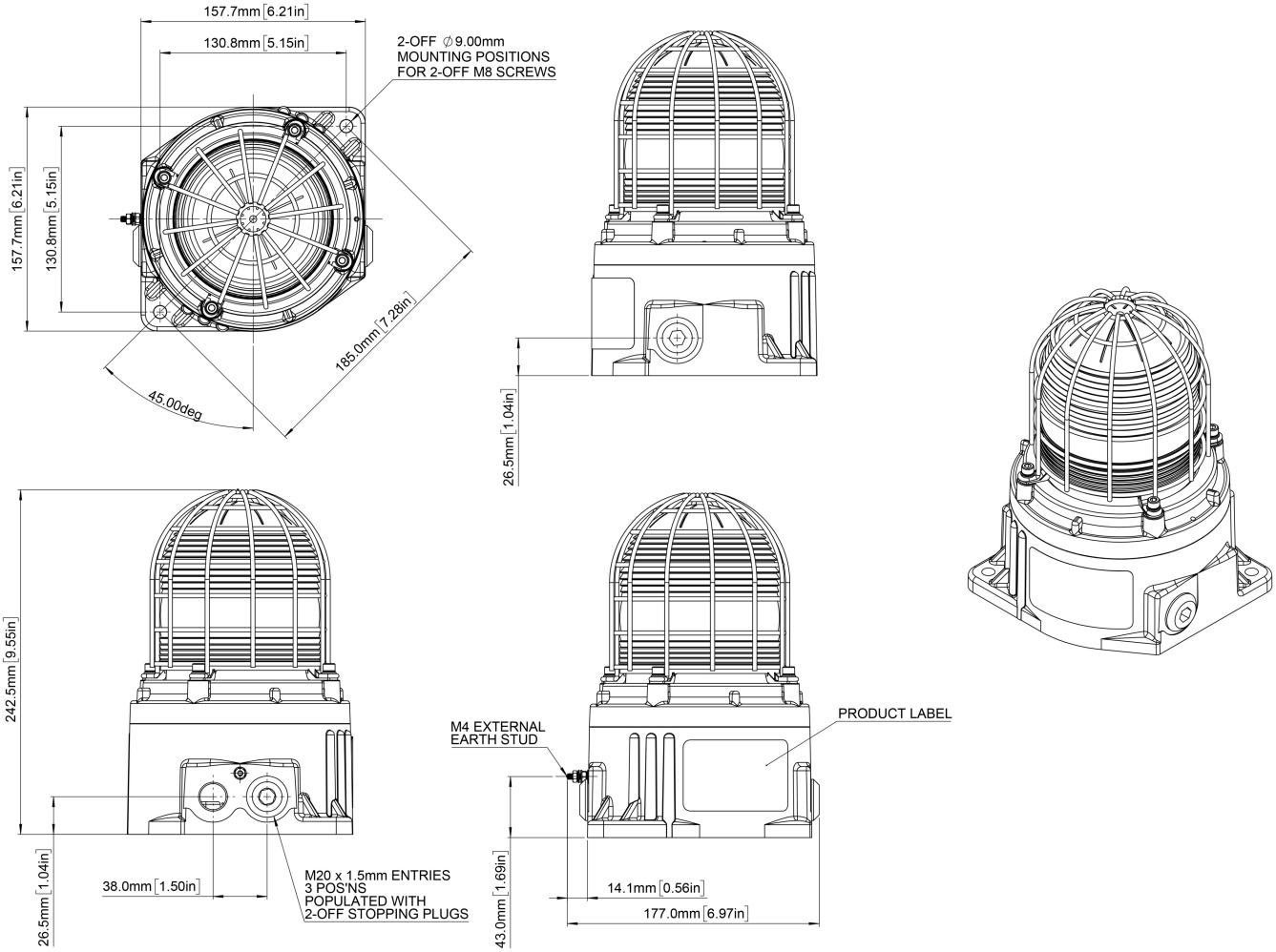
*All candela data is representative of performance with clear lens at optimum voltage.

Part Codes

Part Code:	Identifier:	Description:
Product type:	GNExB2	
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]	A	3 x M20x1.5mm
	B	2 × 1/2" NPT – adaptors
	C	2 × 3/4" NPT – adaptors
	D	2 x M25x1.5mm – adaptors
	E	1 × 1/2" NPT – adaptor
	F	1 × 3/4" NPT – adaptor
	G	1 x M25x1.5mm – adaptor
	H	3 × 1/2" NPT – adaptors
	I	3 × 3/4" NPT – adaptors
	J	3 x M25x1.5mm – adaptors
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, IECEx, ATEX – SIL1 & SIL2 Route 2H
	S	UL, cUL, IECEx, ATEX (24Vdc only) SIL2 Route 1H with diagnostics SFF: >99%
	T	IECEx, ATEX – Telephone/Relay Initiate (excl. 48Vdc)
Product option: [o]	1	Standard product
	X	Custom configuration – contact E2S
Enclosure colour: [x]	R	Red
	S	Special colour – contact E2S
Lens colour: [y]	A	Amber
	B	Blue
	C	Clear
	G	Green
	M	Magenta
	R	Red
	Y	Yellow
Accessories:		
SP65-0001-A4		Pole Mount Bracket Kit St/St A4 (316)
SP65-0003-A4		Sunshade – St/St A4 (316)

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	-
115Vac	110-120Vac 50/60Hz	140mA	200mA	-
230Vac	220-240Vac 50/60Hz	70mA	100mA	-



Assemblies

The GNExB2X05 is available as a plated assembly configured with a GNEx type alarm horn sounder and additional GNEx type Xenon strobe or LED beacons with or without a GNExJ2 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.