

GNExC2 Xenon/LED & Horn Alarm Bar

The GNExC2 is an audio-visual explosion proof alarm bar with up to 6 Xenon strobe or LED beacons with a high output alarm horn warning signal. Approved to IECEx & ATEX for Zone 1 & 2. The robust GRP enclosures are IP66/67 & corrosion proof.

The Ex d explosion proof GNExC2 is comprised of up to 6 × GNExB1X10 10 Joule, GNExB2X15 15 Joule, GNExB2X21 21 Joule Xenon strobe or the GNExB2LD2 multi-function LED beacon with either the GNExS1F, GNExS1R or GNExS2F alarm horn sounder. Factory assembled and pre-wired with or without an Ex d junction box, the connected signals are mounted on a 316L stainless steel plate with optional pole mount kit included. The alarm horn sounder offers sound level outputs of up to 123dB(A) at 1 metre with a choice of 64 alarm tones and 4 remotely selectable stages.

Features

- Robust, corrosion proof GRP (glass reinforced polyester) enclosure
- 316 (A4) stainless steel mounting plate
- Stainless steel beacon guards
- UV stable PC field replaceable lens colour filter
- Ingress protection IP66/67
- Automatic synchronisation of beacon & alarm horn
- Factory assembled cable loom – optional junction box

Approvals

- IECEx UL 15.0003X, IECEx SIR 13.0029X
- ATEX DEMKO 15ATEX1448X, SIRA 13ATEX1139X
- Ex EAC: KZ.1510019.22.01.00271, RU C-GB.AA71.B.00109
- INMETRO IEx 20.0050X
- SIL 1 to IEC61508 (2010)

Coding

GNExB2LD2	Multi-function LED beacon option
IECEX/ATEX	II 2G Ex db IIC Gb T6 Ta -50°C to +65°C II 2G Ex db IIC Gb T5 Ta -50°C to +70°C
GNExB2X10	10 Joule Xenon beacon option
IECEX/ATEX	II 2G Ex db IIC Gb T6 Ta -50°C to +55°C II 2G Ex db IIC Gb T5 Ta -50°C to +70°C
GNExB2X15	15 Joule Xenon beacon option
IECEX/ATEX	II 2G Ex db IIC Gb T5 Ta -50°C to +40°C II 2G Ex db IIC Gb T4 Ta -50°C to +70°C
GNExB2X21	21 Joule Xenon beacon option
IECEX/ATEX	II 2G Ex db IIC Gb T4 Ta -50°C to +70°C
GNExS1R/S1F	115/117dB(A) Alarm horn sounder
IECEX/ATEX	II 2G Ex d IIC T4 Ta. -60° to +50°C II 2G Ex d IIC T3 Ta. -60° to +70°C II 2G Ex d IIB T6 Ta. -60° to +50°C II 2G Ex d IIB T5 Ta. -60° to +65°C II 2G Ex d IIB T4 Ta. -60° to +70°C
GNExS2F	123dB(A) Alarm horn sounder
IECEX/ATEX	II 2G Ex d IIC T4 Ta. -60° to +50°C II 2G Ex d IIC T3 Ta. -60° to +58°C II 2G Ex d IIB T6 Ta. -60° to +50°C II 2G Ex d IIB T5 Ta. -60° to +58°C
GNExB2J2	Junction box option
IECEX/ATEX	II 2G Ex db IIC Gb T6 Ta -50°C to +70°C



Specification

Beacon Option: GNExB2X10/15/21 Xenon Strobes

Energy:	GNExB2X10: 10 Joules (10Ws) GNExB2X15: 15 Joules (15Ws) GNExB2X21: 21 Joules (15Ws)
Flash rate:	DC: 1Hz (60fpm), 1.5Hz (90fpm) & double flash AC: 1Hz (60fpm)
Peak Candela:	GNExB2X10: 1,000,000 cd GNExB2X15: 1,500,000 cd GNExB2X21: 2,100,000 cd [Calc. from energy (J)]
Peak Candela:	GNExB2X10: 110,243 cd GNExB2X15: 114,854 cd GNExB2X21: 1,050 cd [Measured ref to I.E.S]
Eff. Intensity cd:	GNExB2X10: 500 cd GNExB2X15: 750 cd GNExB2X21: 181,491 cd [Calc. from energy (J)]
Eff. Intensity cd:	GNExB2X10: 479.39 cd GNExB2X15: 666.92 cd GNExB2X21: 902.69 cd [Measured ref to I.E.S]

Beacon Option: GNExB2LD2 LED Beacon

Source:	Array of 4 x High Power Cree® LED's
Modes:	1Hz flash (60 fpm), 1.5Hz (90 fpm), 2Hz (120 fpm) Double strike flash, Triple strike flash High Power Steady, Low Power Steady
Eff. Intensity cd:	174 cd – High Power Steady
Eff. Intensity cd:	338 cd – 1Hz flash

Alarm Horn: GNExS1F/S1R/S2F Sounder

Max. SPL:	GNExS1R: 115dB(A) @ 1m [106dB(A) @ 10ft] GNExS1F: 117dB(A) @ 1m [108dB(A) @ 10ft] GNExS2F: 123dB(A) @ 1m [114dB(A) @ 10ft]
Nom. SPL +/- 3dB:	GNExS1F/R: 110dB(A) @ 1m [101dB(A) @ 10ft] GNExS2F: 117dB(A) @ 1m [108dB(A) @ 10ft]
No. of tones:	64 (UK00A / PFEER compliant)
No. of stages:	4 – Negative or Positive switching

J/Box option: GNExJ2 Ex d Junction Box

Terminals:	DIN Rail 12 × AKZ 2.5, Earth 4 × AKE 2.5
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General: Common component features:

Voltages:	24V dc, 115V ac, 230V ac
Ingress protection:	IP66/67
Enclosure matl.:	UV stable GRP (glass reinforced polyester)
Mounting plate:	316 (A4) Stainless Steel
Colour:	Natural Red – alternative colours available
Cable entries:	2 x M20 ISO – adaptors to M25, 1/2" or 3/4" NPT
Stopping plugs:	Brass/Nickel Plated/Stainless Steel plugs included
Grnd/Earth stud:	M6
Terminals:	0.5 – 2.5mm² (20-14 AWG)
Enclosure volume:	<2 litres
Certified temp:	-50 to +70°C [-58°F to +158°F]
Storage temp:	-50 to +70°C [-58°F to +158°F]
Relative humidity:	95% @ 20°C
*All candela data is representative of performance with clear lens at optimum voltage.	

Part Codes

Part Code:	Ident.: Description:	
Product type:	GNExC2 Combined Xenon Strobe Beacon & Alarm Horn Sounder	
Junction box option:	N2 J2	316 Stainless Steel back plate – No junction box 316 Stainless Steel back plate – with GNExJ2 junction box
Select the numeric identifier plus color character as follows: 2 = GNExB2X10 10J Xenon Beacon 3 = GNExB2X15 15J Xenon Beacon 4 = GNExB2X21 21J Xenon Beacon 5 = GNExB2LD2 LED Beacon A=Amber, B=Blue, C=Clear, G=Green, M=Magenta, R=Red, Y=Yellow e.g. 5R = GNExB2LD2 LED Beacon with Red lens		
Beacon 1 Beacon 2 Beacon 3 Beacon 4 Beacon 5 Beacon 6 Beacon 7		
Alarm Horn Sounder:	S1F S1R S2F	GNExS1F alarm horn sounder – 117dB(A) GNExS1R alarm horn sounder – 115dB(A) GNExS2F alarm horn sounder – 123dB(A)
Voltage:	AC115 AC230 DC024	115-120V ac 50/60Hz 220-230V ac 50/60Hz 24V dc
Cable entries: [e]	A B C D E F G	2 x M20x1.5 2 × 1/2"NPT 2 × 3/4" NPT 2 x M25x1.5 1 × 1/2"NPT 1 × 3/4" NPT 1 x M25x1.5
Stopping plug material: [m]	B N S	Brass Nickel Plated Stainless Steel
Lens guard matl. & tag: [s]	&1 2 3 4	A2 304 Stainless Steel with Equip. Tag A4 316 Stainless Steel with Equip. Tag A2 304 St/St with Equip. Tag & Duty Labels A4 316 St/St with Equip. Tag & Duty Labels
Version: [v]	A1 T1 W1 Z1	IECEX & ATEX Tropicalised Special wiring Special software
Enclosure: [x]	R S	Red RAL3000 Special
Example:	GNExC2 J2 5G 2A 2R S1F DC024 A B 1 A1 R GNExC2 Alarm bar assembly with GNExJ2 Junction Box, 1 × GNExB2LD2 LED beacon with green lens, 1 × GNExB2X10 Xenon beacon with Amber lens, 1 × GNExB2X10 Xenon beacon with red lens, GNExS1F Alarm Horn Sounder, 2 x M20x1.5 entry with brass stopping plugs, IECEX & ATEX approved in a red enclosure	
Note:	Junction box option 'J2' must be selected if GNExB2X21 21 Joule Xenon strobe beacons are selected	

Multi-function patterns

GNExB2LD2 LED beacon modes:			
Stage 1: [On board]	Stage 2: [Remote]	Stage 3: [Remote]	
Steady High Power Mode	Flashing 1Hz	Triple Strike	
Steady Low Power Mode	Flashing 1Hz	Triple Strike	
Flashing 1Hz	2x Flash 2Hz	Triple Strike	
Flashing 1.33Hz	Flashing 2Hz	Double Strike	
Flashing 2Hz	Triple Strike	Triple Strike	
Double Strike	Steady High Power	Triple Strike	

Current Consumption

Version:	Voltage Range:	LED Beacon GNExB2LD2 Steady Current:	LED Beacon GNExB2LD2 1Hz Flash Current:	Xenon Beacon GNExB2X10 Current:	Xenon Beacon GNExB2X15 Current:	Xenon Beacon GNExB2X21 Current:	Alarm Horn GNExS1F/S1R Current:	Alarm Horn GNExS2F Current:
24V dc	20-28V dc	240mA	110mA	538mA	822mA	944mA	140mA	811mA
115V ac 50/60Hz	110-125V ac	95mA	90mA	276mA	328mA	464mA	86mA	297mA
230V ac 50/60Hz	220-240V ac	48mA	45mA	130mA	168mA	250mA	75mA	196mA

Assemblies

For applications requiring only visual signals the GNExP1 and GNExP2 alarm bars feature combinations of Xenon Strobe and LED beacons with and without a junction box.

Note

Note comment.

Tone table

S 1	Description	S 2	S 3	S 4
T 1	1000 Continuous - PFEER Toxic Gas	Any	T 2	T 44
T 2	1200/500 @ 1Hz Sweeping - DIN / PFEER P.T.A.P.	Any	T 3	T 44
T 3	1000 @ 0.5Hz (1s on, 1s off) Intermittent - P...	Any	T 2	T 44
T 4	1.4KH-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s - NF C 48...	Any	T 24	T 1
T 5	544(100mS)/440 (400mS) - NF S 32-001	Any	T 19	T 1
T 6	1500/500 - (0.5s on , 0.5s off) x3 + 1s gap -...	Any	T 44	T 1
T 7	500-1500Hz Sweeping 2 sec on 1 sec off - AS4428	Any	T 44	T 1
T 8	500/1200Hz @ 0.26Hz(3.3s on, 0.5s off) - NEN ...	Any	T 24	T 35
T 9	1000 (1s on, 1s off)x7 + (7s on, 1s off) - IM...	Any	T 34	T 1
T 10	1000 (1s on, 1s off)x7 + (7s on, 1s off) - IM...	Any	T 34	T 1
T 11	420(0.5s on, 0.5s off)x3 + 1s gap - ISO 8201 ...	Any	T 1	T 8
T 12	1000(0.5s on, 0.5s off)x3 + 1s gap - ISO 8201...	Any	T 1	T 8
T 13	422/775 - (0.85 on, 0.5 off) x3 + 1s gap - ...	Any	T 1	T 8
T 14	1000/2000 @ 1Hz - Singapore	Any	T 3	T 35
T 15	300 Continuous	Any	T 24	T 35
T 16	440 Continuous	Any	T 24	T 35
T 17	470 Continuous	Any	T 24	T 35
T 18	500 Continuous - IMO code 2 (Low)	Any	T 24	T 35
T 19	554 Continuous	Any	T 24	T 35
T 20	660 Continuous	Any	T 24	T 35
T 21	800 Continuous - IMO code 2 (High)	Any	T 24	T 35
T 22	1200 Continuous	Any	T 24	T 35
T 23	2000 Continuous	Any	T 3	T 35
T 24	2400 Continuous	Any	T 20	T 35
T 25	440 @ 0.83Hz (0.60s on, 0.60s off) Intermittent	Any	T 44	T 8
T 26	470 @ 0.9Hz (0.55s on, 0.55s off) Intermittent	Any	T 44	T 8
T 27	470 @ 5Hz (0.10s on, 0.10s off) Intermittent	Any	T 44	T 8
T 28	544 @ 1.14Hz (0.43s on, 0.44s off) Intermittent	Any	T 24	T 8
T 29	655 @ 0.875Hz (0.57s on, 0.57s off) Intermittent	Any	T 44	T 8
T 30	660 @ 0.28Hz (1.80s on, 1.80s off) Intermittent	Any	T 24	T 8
T 31	660 @ 3.3Hz (0.15s on, 0.15s off) Intermittent	Any	T 24	T 8
T 32	745 @ 1Hz (0.50s on, 0.50s off) Intermittent	Any	T 24	T 8

S 1	Description	S 2	S 3	S 4
T 33	800 (0.25s on, 1.00s off) Intermittent	Any	T 24	T 8
T 34	800 @ 2Hz (0.25s on, 0.25s off) - IMO code 3...	Any	T 24	T 8
T 35	1000 @ 1Hz (0.50s on, 0.50s off) Intermittent	Any	T 24	T 8
T 36	2400 @ 1Hz (0.50s on, 0.50s off) Intermittent	Any	T 24	T 8
T 37	2900 @ 5Hz (0.10s on, 0.10s off) Intermittent	Any	T 24	T 8
T 38	363/518 @ 1Hz (0.50s / 0.50s) Alternating	Any	T 8	T 19
T 39	450/500 @ 2Hz (0.25s / 0.25s) Alternating	Any	T 8	T 19
T 40	554/440 @ 1Hz (0.50s / 0.50s) Alternating	Any	T 24	T 19
T 41	554/440 @ 0.65Hz (0.76s / 0.76s) Alternating	Any	T 8	T 19
T 42	561/760 @ 0.83Hz (0.60s / 0.60s) Alternating	Any	T 8	T 19
T 43	780/600 @ 0.96Hz (0.52s / 0.52s) Alternating	Any	T 8	T 19
T 44	800/1000 @ 2Hz (0.25s / 0.25s) Alternating	Any	T 24	T 19
T 45	970/800 @ 2Hz (0.25s / 0.25s) Alternating	Any	T 8	T 19
T 46	800/1000 @ 0.875Hz (0.57s / 0.57s) Alternating	Any	T 24	T 19
T 47	2400/2900 @ 2Hz (0.25s / 0.25s) Alternating	Any	T 24	T 19
T 48	500/1200 @ 0.3Hz (1.67s / 1.67s) Sweeping	Any	T 24	T 12
T 49	560/1055 @ 0.18Hz (2.73s / 2.73s) Sweeping	Any	T 24	T 12
T 50	560/1055 @ 3.3Hz (0.15s / 0.15s) Sweeping	Any	T 24	T 12
T 51	600/1250 @ 0.125Hz (4s / 4s) Sweeping	Any	T 24	T 12
T 52	660/1200 @ 1Hz (0.50s / 0.50s) Sweeping	Any	T 24	T 12
T 53	800/1000 @ 1Hz (0.50s / 0.50s) Sweeping	Any	T 24	T 12
T 54	800/1000 @ 7Hz (0.07s / 0.07s) Sweeping	Any	T 24	T 12
T 55	800/1000 @ 50Hz (0.01s / 0.01s) Sweeping	Any	T 24	T 12
T 56	2400/2900 @ 7Hz (0.07s / 0.07s) Sweeping	Any	T 24	T 12
T 57	2400/2900 @ 1Hz (0.50s / 0.50s) Sweeping	Any	T 24	T 12
T 58	2400/2900 @ 50Hz (0.01s / 0.01s) Sweeping	Any	T 24	T 12
T 59	2500/3000 @ 2Hz (0.25s / 0.25s) Sweeping	Any	T 24	T 12
T 60	2500/3000 @ 7.7Hz (0.65s / 0.65s) Sweeping	Any	T 24	T 12
T 61	800Hz Motor Siren	Any	T 24	T 12
T 62	1200Hz Motor Siren	Any	T 24	T 12
T 63	2400Hz Motor Siren	Any	T 24	T 12
T 64	Simulated Bell	Any	T 21	T 12