

COMSEC PROTECTION SYSTEMS LTD.
 UNIT 26, STADIUM BUSINESS PARK, • BALLYCOOLIN ROAD, • DUBLIN 11, • IRELAND
 PHONE: +353 (0)1 8853008 • FAX: +353 (0)1 8853007
 EMAIL: info@comsec.ie • WEB: http://www.comsec.ie

E2xL25 PA Loudspeakers

The hazardous area E2xL25 PA loudspeaker is UL approved for Class I Div 2 applications.

The E2xL25 is available with either a 70V or 100V line transformer or as a low impedance loudspeaker.

The E2x range features enclosures manufactured from lightweight, corrosion proof PPS and high impact, fire retardant ABS re-entrant flare horns; both of which are suitable for the harshest of environments.

Features:

- Very large termination area.
- Ratchet adjustable stainless steel 'U' bracket.
- Transformer type fitted with thermal fuse
- Complies with BS5839 part 8

Approvals:

- UL File ref: E230764

Part codes:

Part Code: **Classification:**

UL version:

E2xL25UL**	Class I, Div 2, Grps A,B,C,D T2C (230°C) at +55°C
	Class I, Div 2, Grps A,B,C,D T2D (215°C) at +40°C
	Class II, Div 2, Grps F & G T5 (100°C) at +55°C
	Class II, Div 2, Grps F & G T6 (85°C) at +40°C
	Class III, Divs 1 & 2, T5 (100°C) at +55°C
	Class III, Divs 1 & 2, T6 (85°C) at +40°C

** = Type reference:

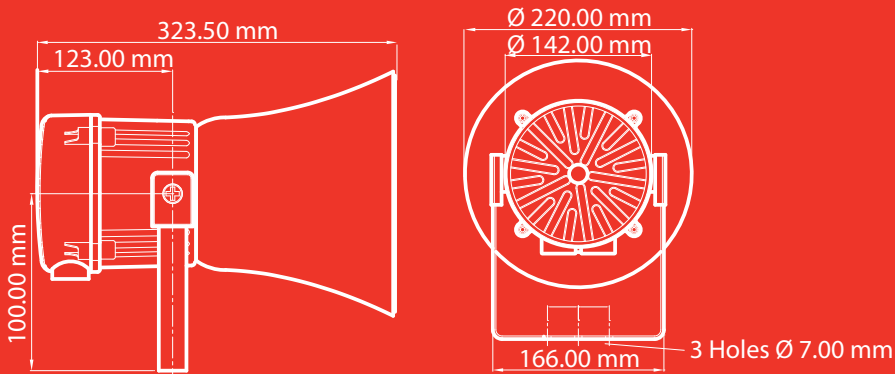
Options:	70V	70V Line transformer
	100V	100V Line transformer
	8R	8 Ohm low impedance
	16R	16 Ohm low impedance

e.g: E2xL25UL100V



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**Specification:**

SPL:	111dB +/-3dB @ 1w @ 1m - Pink noise 124dB +/-3dB @ 25w (rated power) @ 1m
Rated power:	25 Watts RMS
70v line tapings:	25w / 12.5w / 6w / 2w tapings (z=196 Ohms / 392 Ohms / 816.67 Ohms / 2.45k Ohms)
100v line tapings:	25w / 12.5w / 6w / 2w tapings (z=400 Ohms / 800 Ohms / 1.67k Ohms / 5k Ohms)
Low impedance:	8 Ohm or 16 Ohm
Dispersion:	130° @ 1kHz & 32° @ 4kHz
Frequency range:	300Hz to 8000 Hz
DC Line monitoring:	2.2µF Capacitor (Transformer version)
Ingress protection:	UL: Type 4, 4X & 13
Housing material:	UL94V0 PPS & ABS
ATEX cable entries:	2 x M20 ISO cable gland entries - with 1 blanking plug.
UL cable entries:	1 x 1/2" NPT cable gland entry - with 0.5m flying leads.
Terminals (ATEX):	0.5 to 4.0mm ² - In & Out
Weight :	Low impedance: 2.75kg Transformer: 3.25kg

*SPL data +/-3dB(A). Measured at optimum voltage.

INSTRUCTION & SERVICE MANUAL

E2xL25UL LOUDSPEAKERS

For Use In Hazardous Locations

- 25 Watt Loudspeaker
- 70V or 100V Line Transformer with 25W, 12.5W, 6W and 2W tapings
- 8 ohm or 16 ohm
- Type UL 4/4X/13
- Operating Temperature Range -20°C to +55°C



Unit Type No. E2xL25UL

Impedance: 8 ohm or 16 ohm
70V Line or 100V Line

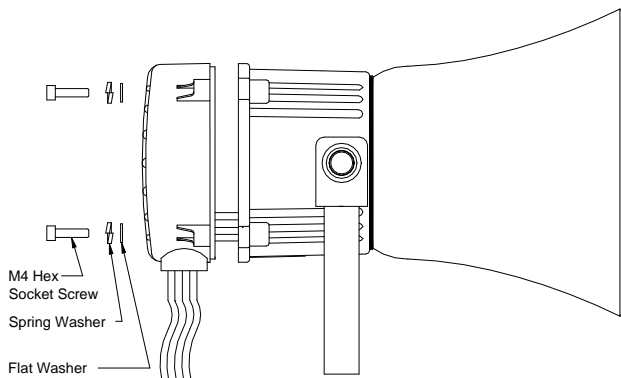
Max. Operating Temperature / Code at +40° Ambient	
Hazardous Location	Temperature Code
Class I, Division 2, Groups A, B, C, D	T2D (215°C)
Class II, Division 2, Groups F and G	T6 (85°C)

Max. Operating Temperature / Code at +55° Ambient	
Hazardous Location	Temperature Code
Class I, Division 2, Groups A, B, C, D	T2C (230°C)
Class II, Division 2, Groups F and G	T5 (100°C)

The equipment is suitable for use in the hazardous locations listed above or non-hazardous locations only.

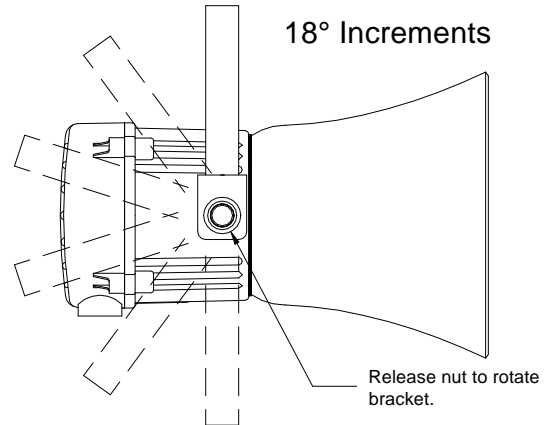
PRE-INSTALLATION

WARNING – The E2xL25UL loudspeakers are supplied with flying leads so it should not be necessary to open the unit before it is installed.



MOUNTING

The E2xL25UL loudspeaker must be mounted using the rotating bracket as shown.



WARNING - EXPLOSION HAZARD - SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS I, II DIVISION 2.

WIRING INSTALLATION

The E2xL25UL loudspeaker has one ½ NPT cable entry, the blanking plug adjacent to the cable entry is permanently fixed and must not be removed. The sounder is pre-wired with flying leads which are colour coded and should be connected as shown in the diagram below.

The conduit running from the supply to the sounder must include an equipment grounding conductor that is at earth potential to facilitate ground connection of the device. A number of loudspeakers can be connected in a chain to the same supply using field installed wiring compartments that are appropriate for the hazardous location, provided that the conductor at earth potential can be readily connected to the ground lead on each loudspeaker in the chain.

WARNING - ALL ELECTRICAL WIRING MUST BE INSTALLED IN ACCORDANCE TO THE NATIONAL ELECTRICAL CODE

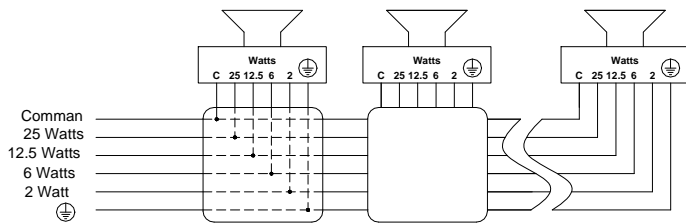
100V and 70V Loudspeakers

White	Common
Red	25 Watts
Orange	12.5 Watts
Yellow	6 Watts
Violet	2 Watt
Green/Yellow	Ground

WARNING – DO NOT OPEN WHEN ENERGISED

CAUTION - DO NOT OPEN WHEN AN EXPLOSIVE GAS OR DUST ATMOSPHERE IS PRESENT

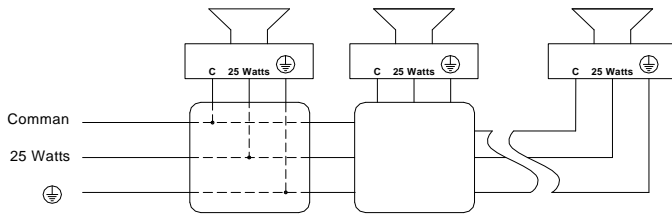
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NOTE - All wires are not used they must be individually insulated to ensure that cannot make contact to any other wires.

8 ohm and 16 ohm Loudspeakers

Black Common
 Red 25 Watts
 Green/Yellow Ground



POWER AMPLIFIER SELECTION

It is important that the E2xL25UL loudspeakers are connected to power amplifiers that have outputs that are compatible to the type of loudspeaker being used. Loudspeakers with a 70V or 100V line matching transformer fitted must be connected to a power amplifier with a 70V or 100V line output. Low impedance 8 ohm or 16 ohm loudspeakers must be connected to amplifiers with a suitable low impedance output.

Unit Type	Input	Wattage	Max. I/P Volts
E2xL25UL	8 ohm	25 Watt	14.14V
E2xL25UL	16 ohm	25 Watt	20V
E2xL25UL	100V Line	25 Watt	100V
E2xL25UL	70V Line	25 Watt	70V

WARNING – HIGH VOLUME MAY CAUSE HARM TO PERSONNEL IN CLOSE PROXIMITY

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