

## International Safety Technology Limited

**SPEAKERS – Up to 25 Watts  
EExd(e), Weatherproof  
DB4 Range**



15W/20W/25W (Long Flare)



8W (Short Flare)

### Introduction

This range of loudspeakers, intended for use in potentially explosive gas and dust atmospheres, has a power rating of up to 25 watts and is suitable for use in all gas groups including hydrogen.

The flamepaths, flare and the body, are manufactured completely from a UV stable glass reinforced polyester. Stainless steel screws and sinter are incorporated thus ensuring a corrosion free product. A tapered flamepath is used to overcome the problems of assembly of parallel spigot flamepaths.

An optional Exe terminal chamber is available.

An uncertified version is available for use in non-explosive atmospheres.

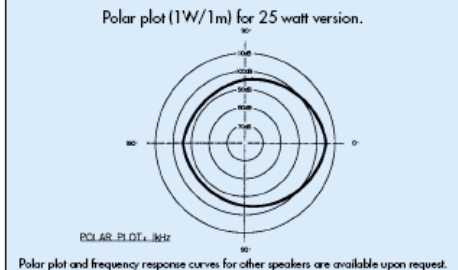
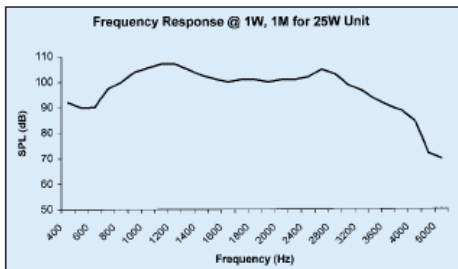
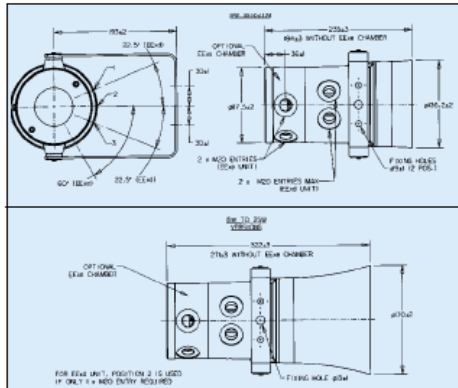
Models compliant to BS 5839, part 8 are available.

- ★ Zone 1, Zone 2 & non-Ex use.
- ★ EExd IIC T4/T5.
- ★ ATEX approved, Ex II 2GD.
- ★ BASEEFA certified.
- ★ UL listed for USA and Canada:
  - Class I, Div 2, Groups A-D.
  - Class I, Zones 1 & 2, AExd IIC, T4.
- ★ GOST 'R' & 'K' certified.
- ★ Australian (SAA) certified.
- ★ Optional Exe terminal chamber.
- ★ IP66 and IP67.
- ★ \*Certified temperature –55°C to +70°C.
- ★ GRP corrosion-free flamepaths.
- ★ 119dBa at 25 watts at 1 metre.
- ★ 8, 15, 20 and 25 watt versions.
- ★ BS 5839, part 8 compliant versions available.
- ★ Addressable capability.
- ★ Power tapping, via integral transformer.
- ★ Ratcheted swivel bracket.
- ★ Stainless steel sinter.
- ★ Stainless steel mounting bracket.
- ★ Tapered flamepath.
- ★ \*Depending on version.

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Polar plot and frequency response curves for other speakers are available upon request.

### Specification

**Rated Power:** 8, 15, 20 or 25 watts RMS continuous (at 25°C).

**Certification:** CENELEC EN50014, 18, 19.  
 BASEEFA Cert. No. BAS00ATEX2097X.  
 BASEEFA Cert. No. BAS00ATEX2098X.  
 For T ratings and full list of certified temperatures, please ring MEDC.  
 Zones 1 and 2. Not suitable for use in atmospheres containing carbon disulphide.  
 UL listed for USA and Canada:  
 - Class 1, Div 2, Groups A-D.  
 - Class 1, Zones 1 & 2, AExd IIC T4.  
 GOST 'R' Certification: 1 Exd IIC T4 & 1 Exde IIC T4.  
 Russian Fire Alarm (VNIPO) approved.  
 GOST 'K' Certification: Exd IIC T4.

**Material:** Body & horn in anti-static, UV stable, glass reinforced polyester.  
 Swivel bracket in stainless steel.  
 Captive cover screws in stainless steel.

**Finish:** Body and horn, natural black or epoxy paint coated to client's colour requirements.

**Output:** Long Flare: Short Flare:  
 107 dBA at 1 Watt at 1 metre. 100 dBA at 1 Watt at 1 metre.  
 119 dBA at 25 Watts at 1 metre. 109 dBA at 8 Watts at 1 metre.  
 Measured in accordance with IEC 268.

**Weight:** 5.0kg approx. dependent on model. (Add 0.5kg for Exe version).

Certified Temperature:	EExd (≤15W)	EExd (>15W)	EExde (≤15W)	EExde (>15W)	UL
	DB4 -20°C +70°C	-20°C +50°C	-20°C +70°C	-20°C +40°C	-55°C +70°C
	DB4L -55°C +70°C	-55°C +50°C	-55°C +70°C	-55°C +50°C	n/a

**Ingress Protection:** IP66 & IP67.  
**Fire Retardancy:** GRP is fire retardant to ISO T210.  
**Frequency Range:** 400Hz to 8kHz.  
**Voice Coil Impedance:** 8 ohms.

**Transformer:** Used to vary the rated power by selecting different tapings (see table below).

Transformer Tappings	Power			
	25W	20W	15W	8W
1:2	25.0	20.0	15.0	8.0
2:3	12.5	10.0	7.5	4.0
3:4	6.0	6.0	5.0	2.0
1:3	4.0	5.0	4.0	1.5
2:4	2.0	2.0	2.0	0.7
1:4	1.0	1.5	0.8	0.4

**Transformer Options:**  
 i) Standard Tapping: 4 terminal tap change. Loop in/Loop out (4x2) terminal tap change (8 terminals).  
 ii) Optional Tapping: 4 terminal tap change with 2 terminals (5 & 6), directly connected to driver (8 ohms).  
 Other tapings & driver impedances available on request.

**Addressable:** Consult MEDC for specification.

**Terminals:** 8 x 2.5mm<sup>2</sup>.  
 Other terminal arrangements available on request.

**Earth Continuity:** Included on Exe version.

**Mounting:** Bracket with ratchet facility.

**Labels:** Duty and tag labels optional.

**Cable Entries:** 1 x 20mm EExd.  
 2 x 20mm EExd/EEExde.  
 2 x 1/2" NPT.

### Ordering Requirements

For standard products, available ex-stock, contact sales office for details.

Max. Rated Power	Certification	Transformer	Labels	Entries	Colour
DB4 *DB4L					
*DB4L available unpainted only.	Type Code	Transformer Code	Label Code	Entries Code	Colour Code
Power Code	Uncertified W	Yes X*	Duty D*	1 x 20mm (EExd) 1B	Natural Black N
8 watt 8	EExd D	None N	Tag T*	2 x 20mm (EExd/EEExde) 2B	Red R
15 watt 15	EExde E	*Std 100V	None N	1 x 1/2" NPT (UL listed only) 1C	Special S*
20 watt* 20	UL listed UL	Other values available, specify voltage.	*Please specify wording	2 x 1/2" NPT (UL listed only) 2C	*Please specify
25 watt 25	EExd BS 5839 part 8 D8				
	GOST 'R' Exd* GD				
	GOST 'R' Exde* GE				
	GOST 'K' Exd KD				
*Not available UL listed.	*VNIPO approved as standard.				

To specify certified plug suffix appropriate code with 'P', e.g. 2BP is 2 x 20mm entries with one certified plug.

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