

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.
- ★ Brazilian (Inmetro) 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 tapings, via integral transformer.
- ★ Ratcheted swivel bracket.
- ★ Stainless steel sinter.
- ★ Stainless steel mounting bracket.
- ★ Tapered flamepath.
- ★ *Depending on version.

MEDC Ltd, Colliery Road,
Pinxton, Nottingham NG16 6JF, UK.
Tel: +44 (0)1773 864100
Fax: +44 (0)1773 582800

MEDC International, 5829 West Sam Houston Parkway,
North, Suite 1005, Houston, Texas 77041, USA.
Tel: +1 (713) 937 9772
Fax: +1 (713) 937 9773

MEDC Norway, Auglaendsmyraa 6,
4016, Stavanger, Norge.
Tel: +47 913 92 289
Fax: +47 914 46 030

Sales Enq. Fax: +44 (0)1773 582830 Sales Orders Fax: +44 (0)1773 582832
E-Mail: sales@medc.com Web: www.medc.com



Specification

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

Certification: CENELEC EN50014, 18, 19.

BASIEFA Cert. No. BAS00ATEX2097X.

BASIEFA 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 I, Div 2, Groups A-D.

– Class I, Zones 1 & 2, AExd IIC T4.

GOST 'R' Certification: 1Exd IIC T4 & 1Exde IIC T4.

Russian Fire Alarm (VNIPO) approved.

GOST 'K' Certification: Exd IIC T4.

Brazilian (Inmetro) Certification: BR-Ex d IIC T5/T4/T135°C.

BR-Ex de IIC T5/T4/T135°C.

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: 107 dBA at 1 Watt at 1 metre. Short Flare: 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:	EEExd (≤15W)	EEExd (>15W)	EEExde (≤15W)	EEExde (>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

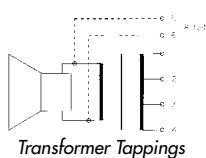
Ingress Protection: IP66 & IP67.

Fire Retardancy: GRP is fire retardant to ISO 1210.

Frequency Range: 400Hz to 8kHz.

Voice Coil Impedance: 8 ohms.

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



Transformer Tapplings

Transformer Tapplings	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 (4 x 2) terminal tap change (8 terminals).

ii) Optional Tapping: 4 terminal tap change with 2 terminals (5 & 6), directly connected to driver (8 ohms).

Other tapplings & driver impedances available on request.

Addressable: Consult MEDC for specification.

Terminals: 8 x 2.5mm².

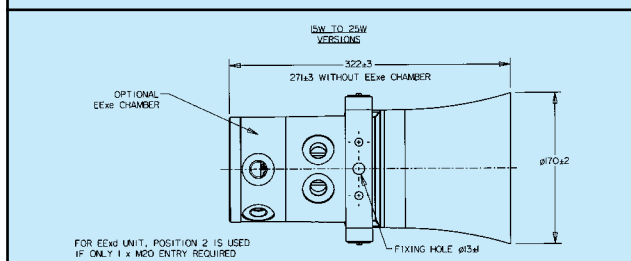
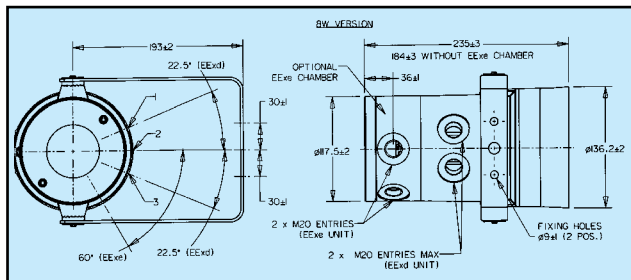
Other terminal arrangements available on request.

Earth Continuity: Included on Exe version.

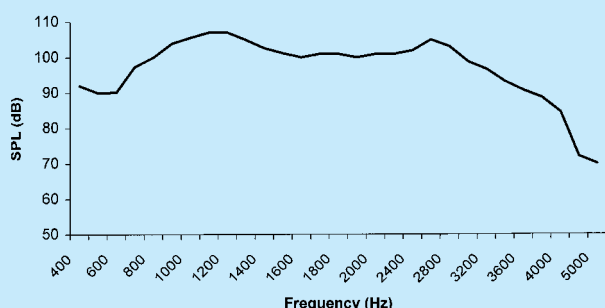
Mounting: Bracket with ratchet facility.

Labels: Duty and tag labels optional.

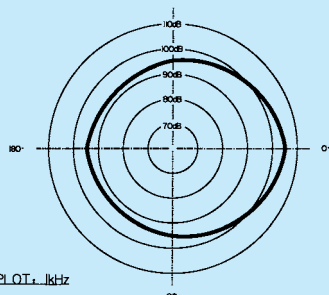
Cable Entries: 1 x 20mm EEExd.
2 x 20mm EEExd/EEExde.
2 x 1/2" NPT.



Frequency Response @ 1W, 1M for 25W Unit



Polar plot (1W/1m) for 25 watt version.



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

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

All the above specifications, dimensions, weights and tolerances are nominal (typical) and MEDC reserve the right to vary all data without prior notice. No liability is accepted for any consequence of use.

