COOPER

Exd(e), Weatherproof

Features

- Zone 1, Zone 2 & non-Ex use.
- Exd IIC T4/T5.
- ATEX approved, EEx II 2GD.
- BASEEFA certified.
- UL listed for USA and Canada:

    Class I, Div 2, Groups A-D.

    Class II, Div 2, Groups F & G

    Class I, Zones 1 & 2, AExd IIC, T4.
- IECEx certified Gb, Db.
- GOST 'R' & 'K' certified.
- Chinese (CQST) certified.
- Brazilian (Inmetro) certified.
- Optional Exe terminal chamber.
- IP66 and IP67.
- SIL 2 Certified
- *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 tappings, via integral transformer.
- Ratcheted swivel bracket.
- Stainless steel sinter.
- Stainless steel mounting bracket.
- Tapered flamepath.

*Depending on version.

⟨Ex⟩ ATEX IECEx cULus GOST INMETRO CQST NAN YANG

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.

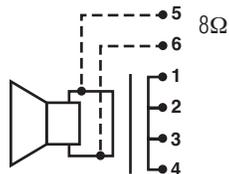Models compliant to BS 5839, part 8 are available.

Authorized Distributor:
GasDetectorsUSA.com
Houston, TX USA
832-615-3588
sales@GasDetectorsUSA.com

MEDC

Specification

Certification:
Certified to IEC60079-0, IEC60079-1, IEC60079-7, IEC60079-31
Certified to EN50014, EN50018, EN50019
ATEX EEx d Cert. No. BAS00ATEX2097X
Ex II 2GD, EEx d IIC T4/T5
ATEX EEx de Cert. No. BAS00ATEX2098X
Ex II 2GD, EEx de IIC T4/T5
Not suitable for use in atmospheres containing carbon disulphide.
IECEx Cert. No. Exd: IECEx BAS 11.0083X
Ex d IIC T4/T5 Gb, Ex tb IIIC T100°C/T135°C Db
IECEx Cert. No. Exe: IECEx BAS 11.0084X
Ex de IIC T4/T5 Gb, Ex tb IIIC T100°C/T135°C Db
UL listed for USA and Canada:
  – Class I, Div 2, Groups A-D.
  – Class II, Div 2, Groups F & G
  – Class I, Zones 1 & 2, AExd IIC T4.
GOST 'R' Certification: 1Exd IIC T4 & 1Exde IIC T4.
Russian Fire Approval.
GOST 'K' Certification: Exd IIC T4 & Exde IIC T4.
Chinese (CQST) certification Exd IIC T5.
Brazilian (Inmetro) Certification: BR-Ex d IIC T5/T4/T135°C.
BR-Ex de IIC T5/T4/Gb.
American Bureau of Shipping Type Approval DB4D and DB4E only.
SIL 2 Certification to 61508. Cert. No. Sira FSP 11011.

Material:
Body & horn in anti-static, UV stable, glass reinforced polyester.
Swivel bracket in stainless steel.
Captive cover screws in 316 stainless steel.

Finish: Body and horn, natural black or painted to client's colour requirements.

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

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

Ingress Protection: IP66 & 67.

Entries: 1 x M20 Exd.   2 x M20 Exd/Exde.   2 x 1/2" NPT.

Terminals: 8 x 2.5mm^2. Other terminal arrangements available on request.

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

Short Flare:
100 dBA at 1 Watt at 1 metre.
109 dBA at 8 Watts at 1 metre.

Frequency Range: 400Hz to 8kHz.

Voice Coil Impedence: 8 ohms.

Fire Retardancy: GRP is fire retardant to ISO 1210.

Mounting: Bracket with ratchet facility.

Earth Continuity: Included on Exe version.

Addressable: Consult MEDC for specification.

Labels: Duty and tag labels optional.

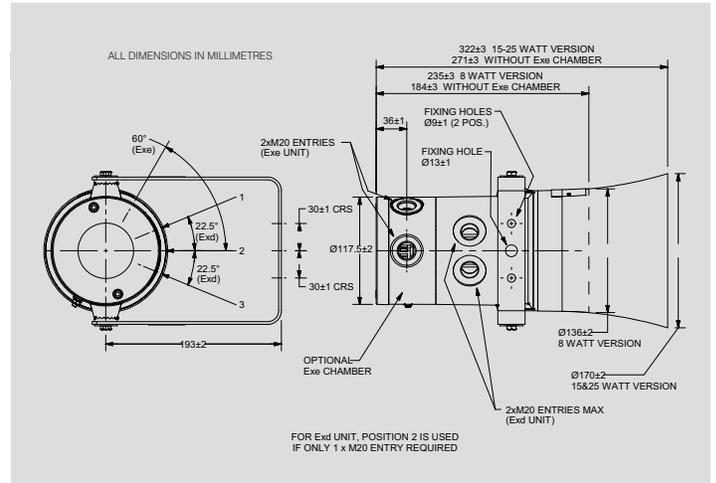**Transformer:** Used to vary the rated power by selecting different tappings (see table).

ALL DIMENSIONS IN MILLIMETRES

Certified Temperature:

	Exd (≤15W)	Exd (>15W)	Exde (≤15W)	Exde (>15W)	UL
DB4	−20°C +70°C	−20°C +55°C	−20°C +70°C	−20°C +50°C	−55°C +70°C
DB4L*	−55°C +70°C	−55°C +55°C	−50°C +70°C	−50°C +50°C	n/a

*DB4L IECEx Min Temp - 40°C

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

8Ω

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 Tapping Options:

Standard: i) Loop in/loop out (4 x 2) power tap change; 8 terminals.
Optional: ii) 4 terminal tap change with 2 terminals (5 & 6) directly connected to driver (8 ohms).

DB4 25W @ 1kHz

The following code is designed to help in selection of the correct unit. Build up the reference number by inserting the code for each component into the appropriate box. *Standard products available for immediate shipping - contact sales office for details.*

Model

| DB4 | |
| DB4*† | |

*1DB4L available unpainted only.
† Min IECEx temp - 40°C.

Max Rated Power

Power	Code
8 watt	8
15 watt	15
20 watt	20*
25 watt	25

* Not available UL listed.

Certification

Certification	Code
Uncertified	W
EExd	D
EExde	E
IECEx Exd	DJ
IECEx Exe	EJ
UL listed	UL
EExd BS 5839 part 8	D8
GOST 'R' Exd	GD*
GOST 'R' Exde	GE*
GOST 'K' Exd	KD
Gost 'K' Exe	KE
Chinese (CQST) Exd	Q
Inmetro Exd	DM
Inmetro Exde	EM

* Russian Fire Approval as standard.

Transformer

Transformer	Code
Yes	X*
None	N

* Std 100V
Other values available, specify voltage.

Tag/Duty

Label	Code
Duty	D*
Tag	T*
None	N

* Please specify

Entries

Entries	Code
1 x M20	1B
2 x M20 (Exd/Exde)	2B
1 x 1/2" NPT (UL listed only)	1C
2 x 1/2" NPT (UL listed only)	2C

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

Finish

Finish	Code
Natural Black	N
Red	R
Special	S*

* Please specify

MEDC