



# Technical Manual for the Speaker – DB18

Please note that every care has been taken to ensure the accuracy of our technical manual. We do not, however, accept responsibility for damage, loss or expense resulting from any error or omission. We reserve the right to make alterations in line with technical advances and industry standards.

## 1. INTRODUCTION

This loudspeaker, intended for use in potentially explosive gas atmospheres, has a power rating of up to 15 watts and is suitable for use in all gas groups including hydrogen.

## 2. INSTALLATION

### General

When installing and operating explosion-protected equipment, requirements for selection, installation and operation should be referred to eg. IEE Wiring Regulations and the 'National Electrical Code' in North America. Additional national and/or local requirements may apply. Ensure that all nuts, bolts and fixings are secure.

Ensure that only the correct listed or certified stopping plugs are used to blank off unused gland entry points and that the NEMA/IP rating of the unit is maintained.

The DB18 is mounted via 2 off Ø7 mm (Ø0.28") fixing holes in the 'U' shaped stirrup/mounting bracket. If required, the unit can be initially placed via the Ø13mm (Ø0.51") central hole in the stirrup. The unit can be rotated to the required position and fixed via the two other holes.

MEDC recommend the use of stainless steel screws.

### Cable Termination

**CAUTION: Before removing the cover assembly, ensure that the power to the unit is isolated.**

Unscrew and remove the 2 off screws holding the cover assembly to the base. Keep in a safe, accessible location.

Remove cover to gain access to the interior.

Cable termination should be in accordance with specifications applying to the required application. MEDC recommends that all cables and cores should be correctly identified. Please refer to the wiring diagram provided with the product.

Ensure that only the correct listed or certified cable glands are used and that the assembly is shrouded and correctly earthed.

All cable glands should be of an equivalent NEMA/IP rating to that of the

speaker and integrated with the unit such that this rating is maintained. The internal earth terminal, where fitted, must be used for the equipment grounding connection and the external terminal is for a supplementary bonding connection where local codes or authorities permit or require such a connection.

Once termination is complete, carefully push the cover assembly back onto the base, avoiding damage to the mating surfaces. **Please Note:** The cover should be fitted in the orientation as supplied by MEDC to avoid the cover fouling on the internal components. Replace the 2 off screws into the holes in the cover assembly and tighten evenly.

### 3. OPERATION

The operating voltage of the unit is stated on the unit label.

The speaker is available as a 15W version only.

Different sound levels can be obtained by selecting the transformer tapings in the unit (see table below)

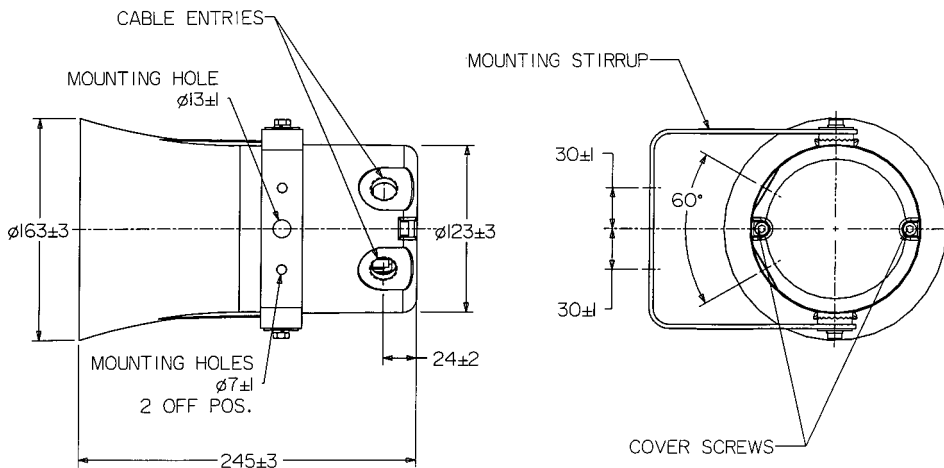
TRANSFORMER TAPPINGS	POWER 15W
1:2	15
2:3	7.5
3:4	5
1:3	4
2:4	2
1:4	0.8

### 4. MAINTENANCE

During the working life of the unit, it should require little or no maintenance. However, if abnormal or unusual environmental conditions occur due to plant damage or accident etc., then visual inspection is recommended.

If a unit fault should occur, then the unit can be repaired by MEDC. All parts of the unit are replaceable.

## GENERAL ARRANGEMENT



ALL DIMENSIONS IN MILLIMETRES

If you acquired a significant quantity of units, then it is recommended that spares are also made available. Please discuss your requirements with the Technical Sales Engineers at MEDC.

### 5. CONFORMITY

Tested to EN50014:1997, EN50021:1999

EEx nA II T135°C (-55°C Tamb +55°C) T4.

The Declaration of Conformity and the product label carry the ATEX group and category marking:-  $\text{Ex}$  II 3 GD

Where  $\text{Ex}$  signifies compliance with ATEX

II signifies suitability for use in surface industries

3 signifies suitability for use in Zone 2

G signifies suitability for use in the presence of gases

D signifies suitability for use in dust atmospheres

### 6. AMBIENT TEMPERATURE

-55°C to +55°C.

MEDC Ltd, Colliery Road, Pinxton, Nottingham NG16 6JF, UK.

Tel: +44 (0)1773 864100 Fax: +44 (0)1773 582800

Sales Enq. Fax: +44 (0)1773 582830 Sales Orders Fax: +44 (0)1773 582832

E-mail: sales@medc.com Web: www.medc.com

MEDC Stock No.  
TM123-ISSA