

# D1xL1F 117dB(A) 15W Explosion Proof Speaker

The D1xL1F is a 15W PA loudspeaker with re-entrant flare horn. A high SPL in a robust Type 4/4X, IP66 marine grade, corrosion proof aluminium enclosure ensures suitability for all Class I & II Div 1 & Zone 1, 20 and 21 explosion proof applications.

The re-entrant flare horn is high impact, fire retardant thermoplastic and is field replaceable – the driver employs a standard 1 3/8" -18 male thread coupling. All models have triple cable entries and duplicated terminals..

The large termination chamber and cover feature a threaded flameproof joint simplifying both installation and routine maintenance.

## Features

- Multiple transformer tapings
- Ratchet adjustable 316 stainless steel bracket
- Triple cable entries, duplicated cable terminations
- Robust marine grade aluminium enclosure
- UL 1480 Speakers for Fire Alarm and Signaling Systems,
- CAN/ULC-S541 Speakers for Fire Alarm and Signaling Systems

## Approvals

- UL/cUL File ref: E230764
- IECEx Certificate: IECEx ULD 19.0008X
- ATEX Certificate: DEMKO 19 ATEX 2141X
- CSFM listing: 7136-2279:0504
- UKCA certificate: UL21UKEX2132X

## Coding

- NEC Class Div  
Class I Div 1 Group ABCD T5 Ta -55°C to +85°C (T6 +65°C)
  - CEC Class Div  
Class I Div 1 Group ABCD T5 Ta -55°C to +75°C (T6 +65°C)
  - NEC Class Zone  
Class I Zone 1 AEx db IIC T5 Gb Ta -55°C to +75°C (T6 +60°C)  
Zone 21 AEx tb IIIC T90°C Db Ta -55°C to +75°C
  - CEC Class Zone  
Ex db IIC T5 Gb Ta -55°C to +75°C (T6 +60°C)  
Ex tb IIIC T90°C Db Ta -55°C to +75°C
  - IECEx / ATEX  
II 2G Ex db IIC T5 Gb Ta -55°C to +75°C (T6 +60°C)  
II 2D Ex db IIIC T92°C Db Ta -55°C to +75°C
  - Product version: D
  - NEC & CEC Class Div  
Class II Div 1 Group FG T6 Ta -40°C to +70°C  
Class III Div 1 Ta -40°C to +70°C  
Zone 20 IIIB T6 Ta -40°C to +70°C
  - NEC Class Zone (R008 & R016 only)  
Zone 21 AEx tb IIIC T90°C Db Ta -55°C to +75°C
  - CEC Class Zone (R008 & R016 only)  
Ex tb IIIC T90°C Db Ta -55°C to +75°C
- See product manual for full product specific coding.

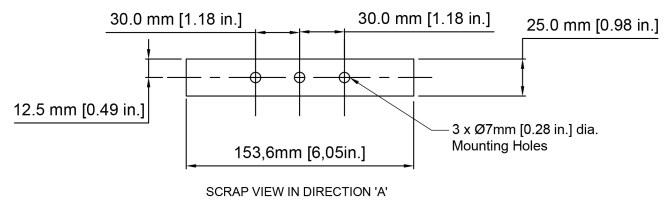
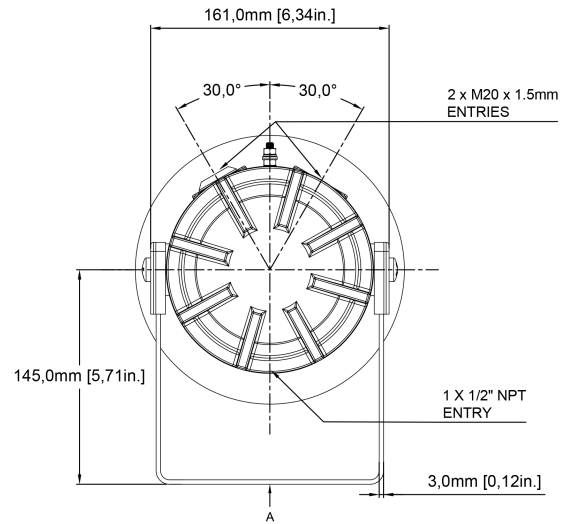
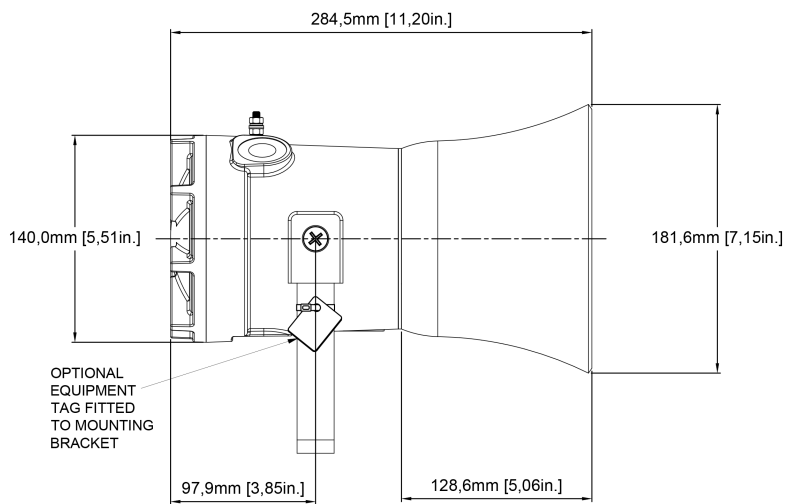


Specification

|                                      |                                                                                                                                        |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Product version A SPL:               | 101dB +/-3dB @ 1W @ 1m (Pink)<br>113dB +/-3dB @ 15W @ 1m (Rated)<br>117dB(A) @ 1 m at 1.3Khz (Max)                                     |
| Product version D SPL:               | 88dB +/-3dB @ 1W @ 1m (Pink)<br>93dB +/-3dB @ 15W @ 1m (Rated)<br>98dB(A) @ 1 m at 1.3Khz (Max)                                        |
| Rated power:                         | 15 Watts RMS                                                                                                                           |
| 25/70v line tapplings:               | 15W/7.5W/5W/4W/2W<br>25V: z=41.67/83.34/125/156.25/312.5K Ohm<br>70V: z=326.67/653.34/980/1.225K/2.45K Ohm                             |
| 70v line tapplings:                  | 15W/7.5W/3W/1W<br>z=336.67 Ohms/653.33 Ohms/1.6k Ohms/4.9k Ohms                                                                        |
| 100v line tapplings:                 | 15W/7.5W/3W/1W<br>z=666.87 Ohms/1.34k Ohms/3.34k Ohms/10k Ohms                                                                         |
| Low impedance:                       | 8 Ohm or 16 Ohm                                                                                                                        |
| Q Factor:                            | 1.9 @ 500Hz, 3.1 @ 1KHz, 6.0 @ 2KHz,<br>11.0 @ 4KHz, 10.9 @ 8KHz                                                                       |
| Directivity Index:                   | 2.9 @ 500Hz, 4.9 @ 1KHz, 7.8 @ 2KHz,<br>10.4 @ 4KHz, 10.4 @ 8KHz                                                                       |
| Frequency range:                     | 400Hz to 8000 Hz                                                                                                                       |
| DC Line monitoring:                  | 2.2µF Capacitor (Transformer )<br>470µF Capacitor (Low impedance)                                                                      |
| Ingress protection:                  | EN60529: IP66/67<br>UL50E / NEMA250: 4/4X/3R/13                                                                                        |
| Enclosure material:                  | Marine grade LM6 aluminium alloy                                                                                                       |
| Enclosure color:                     | Red or Grey, custom colours available on request                                                                                       |
| Enclosure finish:                    | Chromate & powder coated finish                                                                                                        |
| Cable entries:                       | 1 × 1/2"NPT & 2 x M20<br>Thread adaptors available                                                                                     |
| Stopping plugs:                      | Brass, Nickel Plated or Stainless Steel                                                                                                |
| Terminals:                           | 0.5-2.5mm² (20-14 AWG)<br>Duplicated terminals                                                                                         |
| Grounding stud:                      | M5                                                                                                                                     |
| Enclosure volume:                    | <2 litres                                                                                                                              |
| Product version A Installation temp: | NEC: -55° to +85°C [-67° to +185°F]<br>CEC/IECEX/ATEX: -55° to +75°C [-67° to +167°F]                                                  |
| Product version D Installation temp: | NEC Class Div: -40° to +70°C [-40° to +158°F]<br>NEC Class Zone, CEC Class Div/Zone: -55° to +75°C [-67° to +167°F]                    |
| Storage temp:                        | -55° to +85°C [-67° to +185°F]                                                                                                         |
| Relative humidity:                   | 95% – Additional tropicalisation is recommended for applications where both high relative humidity and high ambient temperatures exist |
| MTBF V100/V070/V725:                 | 630.69 years / 5,524,861 hours – MIL 217                                                                                               |
| MTBF R008/R016:                      | 830.22 years / 7,272,727 hours – MIL 217                                                                                               |
| Weight:                              | 100V, 70V, 25/70V line: 4.3kg/9.5lbs<br>Low imp.: 4.0kg/8.7lbs                                                                         |

Part Codes

| Part Code:                      | Identifier:                          | Description:                                                                                                                                                                                                                                       |
|---------------------------------|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product type:                   | D1xL1                                | D1xL1 15W Loudspeaker                                                                                                                                                                                                                              |
| Horn type:                      | F                                    | Flare re-entrant horn                                                                                                                                                                                                                              |
| Type:                           | V100<br>V070<br>V725<br>R008<br>R016 | 100V Line Transformer<br>70V Line Transformer<br>25V/70V Line Transformer<br>8 Ohm Low impedance<br>16 Ohm Low impedance                                                                                                                           |
| Cable entries:[e]               | A<br>B<br>C<br>D<br>F<br>G<br>Note:  | 2 x M20x1.5mm & 1 × 1/2"NPT<br>2 × 1/2"NPT – adaptors<br>2 × 3/4"NPT – adaptors<br>2 x M25x1.5mm – adaptors<br>1 × 3/4"NPT – adaptor<br>1 x M25x1.5mm – adaptor<br>All entries, excluding thread adaptors, supplied with stopping plugs installed. |
| Stopping plug/adaptor material: | B<br>N<br>S                          | Brass<br>Nickel plated brass<br>Stainless steel                                                                                                                                                                                                    |
| Bracket material:               | 1<br>3                               | A4 316 Stainless Steel<br>A4 316 St/St with Equip. Tag                                                                                                                                                                                             |
| Product version:                | A<br>D                               | UL, cUL, IECEX, ATEX, CSFM<br>Class II – UL, cUL (excluding 100V & 25V/70V)                                                                                                                                                                        |
| Product option:                 | 1<br>X                               | Standard product<br>Custom configuration                                                                                                                                                                                                           |
| Enclosure color:                | R<br>G<br>S                          | Red<br>Grey<br>Special color                                                                                                                                                                                                                       |
| Accessories:                    |                                      |                                                                                                                                                                                                                                                    |
| SP65-0001-A4                    |                                      | Pole Mount Bracket Kit St/St A4 (316)                                                                                                                                                                                                              |
| SP65-0003-A4                    |                                      | Sunshade – St/St A4 (316)                                                                                                                                                                                                                          |



Brooks Equipment • 10926 David Taylor Dr, Suite 300 • Charlotte, NC 28262 • 800.826.3473 (P) • 800.433.9265 (F)

Sales@BrooksEquipment.com • www.BrooksEquipment.com

No liability is accepted for any consequence of the use of this document. The technical specification of this unit is subject to change without notice due to our policy of continual product development. All dimensions are approximate. This unit is sold subject to our standard conditions of sale, a copy of which is available on request.