

Loudspeaker iLA3/..

Order information

Designation	Type	Part no. [Code No.]
Loudspeaker 4Ω	iLA3/4	123 620 01 AX [8108A010]
Loudspeaker 8Ω	iLA3/8	123 620 02 AX [8108A020]
Loudspeaker 16Ω	iLA3/16	123 620 03 AX [8108A030]
Loudspeaker 60Ω	iLA3/60	123 620 04 AX [8108A040]
Loudspeaker 16Ω, housing base with microphone connection socket (2 m cord)	iLA3/16	123 620 05 AX [8108A031(9)]
Loudspeaker 16Ω, housing base with microphone connection socket (15 m cord)	iLA3/16	123 620 06 AX [8108A032(9)]
Loudspeaker - housing base with microphone connection socket (2 m cord), spare part		133 990 11 [8108A900]
Loudspeaker- housing base with microphone connection socket (15 m cord), spare part		133 990 11 01 [8108A910]
Loudspeaker – housing base without microphone connection socket (2 m cord), spare part		133 990 12 [8108A920(9)]



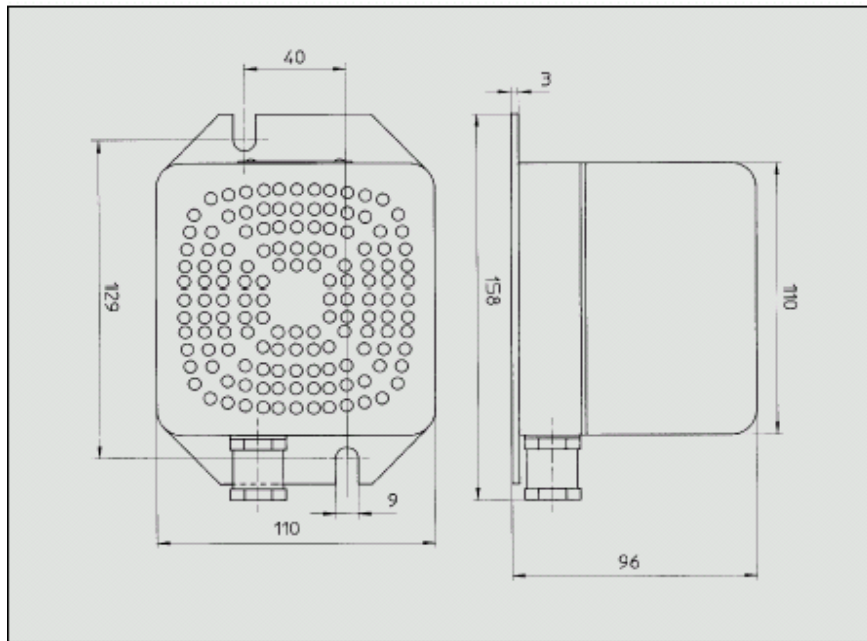
- **Rugged and compact**
- **High volume at low energy consumption**
- **Good syllable comprehensibility**
- **I M 1 EEx ia I**

Usage / Construction

The loudspeaker iLA3/.. is designed in specially small and rugged form for application in potentially explosive environment. The high efficiency of the loudspeaker's pressure chamber system transforms the limited energy of intrinsically safe circuits into a high sound pressure level and thus permits a good communication, even in noisy environments.

The loudspeaker is located under a deep-drawn sheet-steel cover, which is fixed onto a short piece of square tube, serving as housing base. The housing base is sealed with a weld-on sheet-steel plate carrying two protruding fastening straps at two sides of the plate. The electrical connections have to be made to terminals which are placed in the housing base.

Dimensional drawing iLA3/..

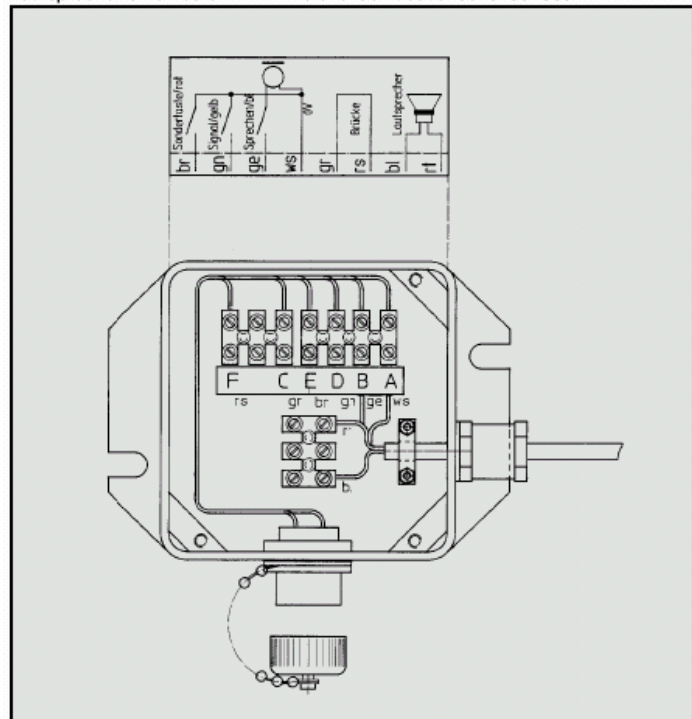


Addendum: Loudspeaker iLA3/.., housing base with microphone connection socket

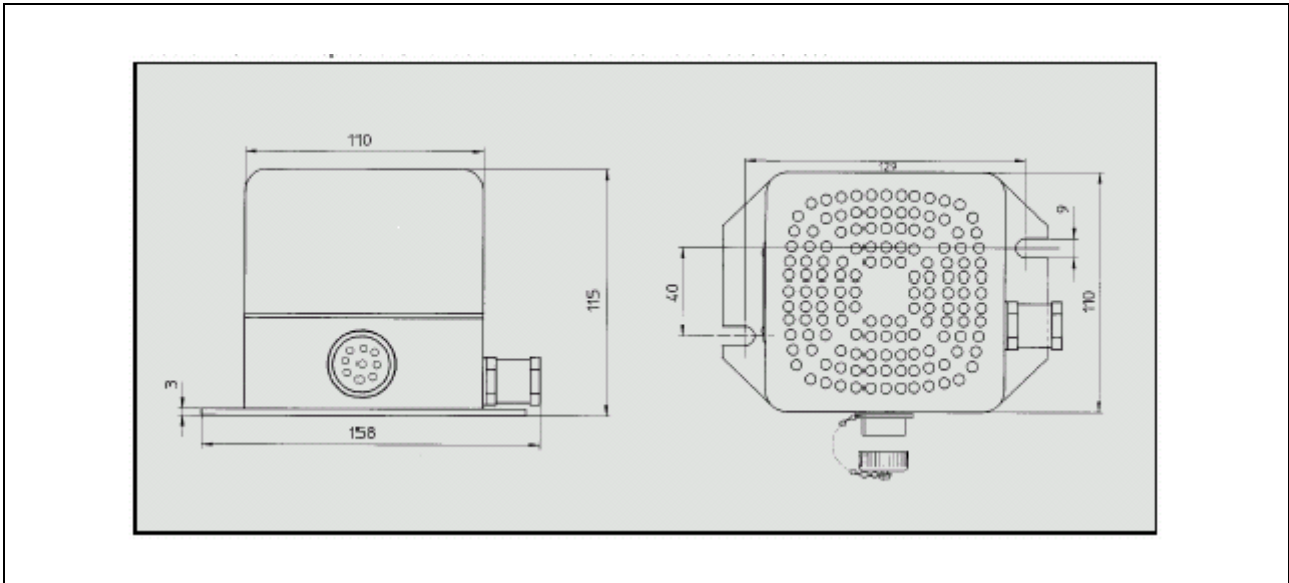
The loudspeaker iLA3/.. optionally can be equipped with a housing base with a built-in microphone connection socket.

By use of this supplement the loudspeaker iLA3/.. and a microphone (MIK4/2) can be connected to a radio station via only one (multi-core) cable.

Lautsprecher-Unterkasten mit Mikrofonanschlußbuchse 8108A900



Dimensional drawing iLA3/.. and loudspeaker housing base with microphone connection socket 8108A900




Assembly

The loudspeaker is operational in any position. But it should be considered, that the greatest acoustical efficiency is reached only in the direction of the loudspeaker's output. Care should be taken on a vibration safe attachment of the loudspeaker. The mounting has to be made with 2 screws up to \varnothing 8 mm. Fastening elements and mounting place must be able to bear the device's weight of approx. 2,3 kg.

Installation

The device may be connected only by a trained specialist. The details in the 'Technical Data' section must be observed. To connect the cable the loudspeaker's housing top must be separated from the housing base. The cable must be led into the housing base through the cable gland, sealed, secured and its conductors should be connected to the screw terminals of the base housing carefully. Subsequently the loudspeaker's housing top must be fixed to the housing base again.

Technical Data

Designation	Loudspeaker
Type	iLA3/..
Permanent load	dynamic pressure chamber system
Impedance	max. 20W
	dep. on variant
	4 Ω
	8 Ω
	16 Ω
	60 Ω
Frequency range	300 Hz bis 10 kHz
Electrical Characteristics / Parameters	
Loudspeaker Circuit	
Max. input voltage U_i	30 V
Max. input current I_i	must be considered separately
Max. input power P_i	20 W
Max. inner inductivity L_i	must be considered separately
Max. inner capacity C_i	negligible
LF Circuit(tone frequency circuit, LF plug)	
Max. input voltage U_i	30 V
Max. input current I_i	0.1 A
Max. input power P_i	2 W
Max. inner inductivity L_i	negligible
Max. inner capacity C_i	negligible
Sound pressure level	approx. 105 dB (A) in 1m distance / 1 W
Operation mode	continuous
Operation position	any, preferably vertical assembly
Operation conditions	preferably in hazardous firedamp areas (coal mining)
Housing	Sheet-steel, Colour: blue
Housing protection	IP54 acc. to IEC 529
Cable gland	1 x for cable diameters of 8 – 12 mm
Temperature range	
- Operation	- 20 to + 55°C
- Storage and shipping	- 25 to + 70°C
Testing and Certification	
- Explosion protection category / mode	I M 1 EEx ia I
- Certification No.	DMT 02 ATEX E 145
Dimensions:	see dimensional drawing
Weight:	approx. 2.3 kg
Identification / Type label	
The loudspeaker iLA3/.. is labeled as follows:	
Company	FHF Bergbautechnik D-42551 Velbert Germany
Type	iLA3/..  I M 1 EEx ia I DMT 02 ATEX E 145 CE 0158 F. Nr., Testing (short sign, month/year) -20°C ≤ T _a ≤ +55°C

User information, Warn and Safety Notes

This is a explosion-proof equipment for operation in hazardous atmospheres. It belongs to safety-class I M1. The following warn and safety notes must be observed particularly:
Any interconnection with other electric equipment must be certified separately.
If the device is powered in a intrinsically safe application by an external power supply of category I M 2 safety class EEx ib I, the operator has to ensure that these power circuits will be switched off if a hazardous atmosphere (increased firedamp level) will appear, the terminals have to be deenergized in this case.
The device must be connected and installed in accordance with the prescribed installation instructions by a trained specialist, taking the specified protection class into account.
This device must be connected and operated only with the specified voltage. Possible polarity signs must be observed.
Make sure that the housing is not damaged. Devices with a damaged housing may not be operated and must be disconnected immediately.
For operation of the device in commercial facilities the local accident prevention regulations for electrical plants and operating supplies have to be observed.
Unfavorable ambient conditions may damage the device and may possibly result into danger for the users life. Unfavorable ambient conditions could be: <ul style="list-style-type: none"> - Air humidity too high (>75% rel., condensing) - Moisture, dust (observe type of protection) - inflammable gases, vapors, solvents, not covered by the protection class - Ambient temperature too high (> +55°C) - Ambient temperature too low (< -20°C)
The ambient temperature for the device may not fall outside the specified range for operation (-20°C to +55°C), storage and shipping (-25°C to +70°C).
Only the cable glands specified by the manufacturer may be used.
Defective parts may be replaced only by original spare parts.
Mounting and applying of additional parts is forbidden.
Corrective maintenance may be executed only by the manufacturer or by a person appointed by the manufacturer concluded with a renewed routine test of the equipment.
The preferred mounting direction is vertical, cable gland down. At the assembly, it must be ensured that the device can not be misused as step und damaged through this. If necessary the equipment has to be protected against falling down objects or moisture by additional means.
Defective connection cables on the devices must be exchanged.
On shipping and storage and if unused, the devices and components must be protected against damage and dirt.
This device has a high output volume. To avoid hearing damages keep distance to the speaker horn.
Devices operated outside of certified intrinsically safe systems, especially powered by not intrinsically safe power supplies, may not be used in hazardous areas because of possible previous damages.
The explosion protection is not guaranteed at nonobservance of the above mentioned points.

FHF Bergbautechnik GmbH & Co. KG Eintrachtstr. 95 D-42551 Velbert	 FHF Bergbautechnik GmbH & Co. KG	Tel: 0049 (0) 2051 270 – 0 Fax: 0049 (0) 2051 270-366 Mail: info@fhf-bt.de URL : www.fhf-bt.de
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EG KONFORMITÄTSERKLÄRUNG**EC - DECLARATION OF CONFORMITY****DECLARATION CE DE CONFORMITE**

Wir erklären in alleiniger Verantwortung, dass das Produkt auf das sich diese Erklärung bezieht mit der/den folgenden Norm(en) oder normativen Dokumenten übereinstimmt:

Herewith we declare bearing sole responsibility that the product referred in this declaration is in conformity with the following standards or normative documents and regulations of the directive:

Nous déclarons de notre seule responsabilité que le produit auquel se rapporte la présente déclaration est conforme aux normes ou aux documents normatifs suivants:

Bezeichnung des Erzeugnisses	Lautsprecher
Name of produce	loudspeaker
<i>Titre Produit</i>	

Geräte- oder Typenbezeichnung	iLA3/**
Equipment type or mark of equipment	
<i>Identification du produit</i>	

Bestimmung der Richtlinie	Nr. und Ausgabedatum der Norm(en)
Provisions of the directive	No. and date of issue of the standard(s)
<i>Désignation de la directive</i>	<i>No. et date d'émission de la/des norme(s)</i>
94/9/EG: Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen	EN 50014:1997+A1-A2
94/9/EC: Equipment and protective systems intended for use in potentially explosive atmospheres	EN 50020:1994
94/9/CE: Appareils et système de protection destinés à être utilisés en atmosphère explosibles	EN 50303:2000
EG Baumusterprüfbescheinigung	DMT 02 ATEX E 145
EC-type-examination certificate	
<i>Attestation examen CE de type</i>	
Benannte Stelle für die Bescheinigung	DMT
Notified body of the certificate	Deutsche Montan Technologie GmbH
<i>Organisme notifié la attestation</i>	Am Technologiepark 1
	D - 45307 Essen
Benannte Stelle für die Überwachung	
Notified body of inspection	
<i>Organisme notifié des contrôle</i>	
Kennnummer/Inspection number / Numéro	0158

Hersteller / Anschrift	FHF Bergbautechnik GmbH
Manufacturer / Factory address	Eintrachtstr. 95
<i>Fabricante / Dirección</i>	D - 42551 Velbert

Geschäftsführer:
Managing director:
Direction / Gérant:

Dr. Opitz, Hans-Peter

.....
(name, prename)

Velbert
.....
(Ort / place / lieu)

10.6.2010
.....
(Datum / date)


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(Unterschrift / signature)

EC Declaration of Conformity_iLA3.doc