### **WALL AND CEILING SPEAKERS**





### CSB/1T-N Code no. 6097

#### **WALL SPEAKER**

- Quickly and easily installed on any flat surface
- RAL 9003 white moulded plastic body
- Two wide band elliptical loudspeakers
- Equipped with a line transformer for constant voltage systems
- Support for orientable installation
- The multi-tapped transformer makes it possible to change the sound power produced



### CSN-N Code no. 6095

#### **W**ALL SPEAKER

- Wide band elliptical loudspeaker mm diameter.
- RAL 9003 white shock-resistant plastic body
- A multi-tapped transformer can be incorporated for use in constant voltage systems.



### BS2620 Code no. 131.10.006

### **SUSPENDED SPEAKER**

Suspended spherical speaker unit for applications that require particularly uniform sound distribution. Ideal for covering large areas from high ceilings.

- Water-repellant dual cone loudspeaker, 160 mm (6")
- Possibilità di pilotare direttamente l'altoparlante del diffusore.
- Built-in transformer for connection with 100 V constant voltage lines
- Direct drive option
- Possibility to select the output power in constant voltage systems
- Body in self-extinguishing UL 94VO plastic, resistant to UV rays to prevent yellowing or discoloration
- Water-resistant construction (IP X5) for both indoor and outdoor use
- Five-metre connection cable
- Colour: RAL 9010 white

DATI TECNICI	CSN-N	CSB/1T-N	BS 2620
Туре	Wall speaker	Wall speaker with transformer	Spherical with transformer
Installation system	Surface mount	Surface mount	Suspended
Nominal/maximum power	3/6W	6/12 W (6 - 3 - 1,5 - 0,75 - 0,37 W)	20/40 W (20-15-10-5-2,5 W)
Speaker Impedance	4 Ω	8 Ω	8 Ω
Frequency response	120 ÷ 10.000 Hz	120 ÷ 10.000 Hz	100 ÷ 20.000 Hz (-10 dB)
Sensitivity	93 dB (1m/1W)	90 dB (1m/1W)	93 dB (1m/1W)
Maximum sound pressure	101 dB (1 m/ max. power)	101 dB (1 m/ max. power)	109 dB (1m/max. power)
Constant voltage		50 V - 100 V	100 V
Angle of 2000 Hz coverage	[1.000 Hz]: 90° horiz. x 150° vertical	[1.000 Hz]: 90° horiz. x 150° vertical	[1.000 Hz]: 180°
	[2.000 Hz]: 80° horiz. x 110° vertical	[2.000 Hz]: 80° horiz. x 110° vertical	[2.000 Hz]: 100°
		singolo altoparlante	
Dimensions (LxHxP)	234 x 195 x 150 mm	184 x 237 x 120 mm	Ø 260 mm
Maximum protrusion	150 mm	188 mm	
Weight	0,7 Kg	1,46 Kg	3 Kg
Accessories included		Support for orientable	
		installation	
Optional accessories	TD 105 Transformer for	C1T31-006A Replacement	
	constant voltage systems	transformer - Code no. 817.31.006	
	Code no. 133.30.001	C4E15-004 Replacement speaker	
	C4E15-002 Replacement speaker	Code no. 841.15.004	
	Code no. 841.15.002		
Code no.	6097	6095	131.10.006



# **DP1420** Code no. 131.10.196

#### SOUND PROJECTOR

The DP 1420 is a unidirectional sound projector characterized by high acoustic performance. It's ideal for train stations, underground stations, car parks, factories, warehouses, and PA systems in general.

- Extremely sturdy body in extruded aluminium painted RAL 7035 light grey.
- Front grille in painted steel.
- Excellent reproduction of both speech and music.
- Can be installed both indoors and outdoors, thanks to the IP 36 protection.
- Transformer that enables connection to constant voltage lines at 100 V and 70 V, with possibility to select the sound power to be delivered from various values.
- Orientable attachment bracket.



# BD2412 Code no. 131.10.197

#### SOUND PROJECTOR

Bidirectional sound projector with double loudspeaker, characterized by high acoustic performance, excellent design and compact dimensions. The BD 2412 is ideal for train stations, underground stations, car parks, factories, warehouses, corridors and PA systems in general.

- Extremely sturdy body in extruded aluminium painted RAL 7035 light grey.
- Grilles in painted steel.
- Excellent speech intelligibility.
- Can be installed both indoors and outdoors, thanks to the IP 55 protection.
- Transformer that enables connection to constant voltage lines at 100 V and 70 V, with possibility to select the sound power to be delivered from various values.
- Quick and easy installation thanks to the wall attachment support incorporated in the speaker

### SPECIFICATIONS DP 1420

01 2011101110110		
Туре	Unidirectional sound projector, with transformer	
Attachment system	Orientable	
Continuous nominal power*	20 W ([100 V]: 20-10 W • [70V]: 20-10-5 W)	
Frequency response	180 ÷ 19000 Hz	
Sensitivity (1W/1m)	91 dB	
Maximum sound pressure (1m/maximum power)	110 dB / 107 dB	
Input voltage	70 V - 100 V	
Angle of coverage	(1.000 Hz) 180° • (2.000 Hz) 100°	
Protection level	IP 36	
Power value selection	Cable with 4 conductors	
Connection cable length	0,9 m	
Dimensions (Ø x p)	Ø 146 x 200 mm	
Weight	2,5 Kg	
Code no.	131.10.196	

#### SPECIFICATIONS

Type	Bidirectional sound projector, with transformer
Sistema di fissaggio	Support incorporated in the speaker
Continuous nominal power*	12 W ([100 V]: 6-12 W • [70V]: 3-6-12 W)
Frequency response	220 ÷ 18000 Hz
Sensitivity (1W/1m)	90 dB
Maximum sound pressure (1m/maximum power)	107 dB
Input voltage	70 v - 100 V
Angle of coverage	(1.000 Hz) 160° • (2.000 Hz) 100°
Protection level	IP 55
Power value selection	Cable with 4 conductors
Connection cable length	1 m
Dimensions (Ø x p)	Ø 146 x 186 mm
Weight	3,2 Kg
Code no.	131.10.197

BD 2412

\* Test lasting 24 hours with IEC spectrum





# **DP1T/G** Code no. 6086

#### SOUND PROJECTOR

For speech and music reproduction in particularly large or noisy environments such as department stores, shopping centres, sports centres, etc. Excellent reproduction quality and precise directivity. Particularly linear response curve thanks to the use of an antiresonance volume system.

- Cylindrical body in impact-resistant RAL 7035 grey plastic
- Front protection grille in galvanized steel
- Ø 130 mm hi efficiency cone loudspeaker
- Line transformer for constant voltage systems (100 V)
- Hinged support for orientating the speaker in any direction
- Possibility to change the sound power produced.



### DP1ST/K Code no. 6085

#### SOUND PROJECTOR

For music and speech reproduction in particularly large or noisy environments such as department stores, shopping centres, train stations, sports centres, etc. Excellent reproduction quality and precise directivity. Particularly linear response curve thanks to the use of an anti-resonance volume system.

- Sealed speaker made of RAL 7035 grey impact-resistant plastic
- Front grille in galvanized steel
- Dual cone loudspeaker in carbon fibre, Ø 120 mm
- Line transformer for constant voltage systems (100 V)
- Includes a 25V input for connecting multiple speakers in parallel to a constant impedance line
- With 100 V lines, it is possible to select the output power from 3 different values
- Hinged support for orientating the speaker in any direction.



# DP2/T Code no. 6088 DP2/1T Code no. 6087

#### SOUND PROJECTORS

Attractive, sophisticated design with marked sound directivity, the DP 2/T and DP2/1T are ideal for sound systems that require excellent sound reproduction quality and high efficiency.

- Cylindrical plastic body in RAL 7016 anthracite grey (DP2/T) or RAL 9003 white (DP2/1T)
- Metal front protection mesh
- Includes line transformer for constant voltage systems
- Ø 130 mm cone loudspeaker
- Equipped with hinged support that permits orientation in any direction
- The multi-tapped transformer makes it possible to change the sound power produced.

SPECIFICATIONS	DP 1T/G	DP 1ST/K	DP 2/T - DP 2/1T
Туре	Sound projector with transformer	Sound projector with transformer	Sound projector with transformer
Installation system	Orientable	Orientable	Orientable
Nominal/maximum power	10 / 20 W (10 - 5 - 2,5 W)	20 / 40 W ([100V]: 20 - 10 - 5 W [25 V]: 20 W)	4 / 8 W (4 - 2 - 1 W)
Speaker Impedance	16 Ω	4 Ω	4 Ω
Frequency response	50 - 13.500 Hz	50 - 13.500 Hz	150 - 12.000 Hz
Sensitivity	96 dB (1m/1W)	90 dB (1m/1W)	94 dB (1m/1W)
Maximum sound pressure	106 dB / 109 dB	103 dB / 106 dB	100 dB / 103 dB
Constant voltage	100 V	25 V - 100 V	100 V
Angle of coverage	(1.000 Hz) 180°	(1.000 Hz) 180°	(1.000 Hz) 180°
	(2.000 Hz) 110°	(2.000 Hz) 100°	(2.000 Hz) 110°
Dimensions	Ø 160 x 245 mm	Ø 160 x 245 mm	Ø 136 x 205 mm
Weight	1,95 Kg	2 Kg	1,1 Kg
Optional accessories	C1T31-018A Replacement transformer - Code no. 817.31.018 C4E15-006 Replacement loudspeaker Code no. 841.15.006	C1T31-060A Replacement transformer - Code no. 817.31.063 Replacement loudspeaker Code no. 211.10.870	C1T31-036A Replacement transformer Code no. 817.31.036 C4E15-015 Replacement loudspeaker- Code no. 841.15.015
Code no.	6086	6085	6088 - Mod. DP 2/T 6087 - Mod. DP 2/1T



### CS2004 Code no. 6082

#### COLUMN SPEAKER

Designed for corner or wall installation, the CS 2004 has high efficiency and a broad angle of coverage over the entire range reproduced. The extremely compact dimensions also make it possible to install the speaker in ceiling lighting fixtures or in false ceilings. The line transformer can be excluded.

- Elliptical wide band 2"x6" loudspeaker
- Line transformer for constant voltage systems at 50V, 70V, 100V. Includes a 25V socket for connecting multiple speakers in parallel to a constant impedance line
- The sound power delivered can be set to one of 5 different values
- 3-position switch for direct selection of 3 power levels
- Body in extruded aluminium, stove-enamelled matte RAL 9003 white, with metal front protection grille



### CS2012 Code no. 6083

#### **COLUMN SPEAKER**

The CS 2012 has been developed to provide excellent performance in voice reproduction. The shape is designed to permit corner installation. The limited dimensions make it easy to integrate it into any environment. Installation is extremely easy thanks to dedicated accessories. The CS 2012 can be used in constant impedance systems.

- Body in stove-enamelled extruded aluminium, matte RAL 9003 white
- Four wide band loudspeakers of 70 mm diameter
- Equipped with line transformer for 50, 70, and 100 V constant voltage systems
- Six-position rotary dial for adjusting the sound power delivered in constant voltage systems
- 8-ohm input that can be selected by switch
- Metal front protection grille



### **CS2020** Code no. 6084

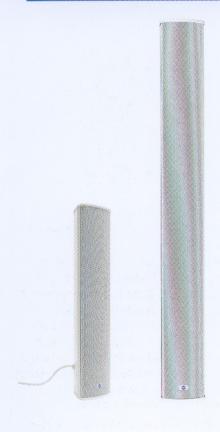
#### COLUMN SPEAKER

Reproduces speech with perfect intelligibility. The CS 2020's seven loudspeakers are driven with decreasing powers from the centre outward to improve the vertical dispersion of the frequencies that are critical for voice clarity. The medium-high frequencies are reproduced exclusively by the central loudspeaker to achieve regular dispersion that is free of "holes". The shape is designed to permit corner installation. CS 2020's compact dimensions make it easy to integrate it into any environment. Extremely easy installation thanks to a complete line of dedicated accessories. Can be used in constant impedance systems

- RAL 9003 white body in stove-enamelled extruded aluminium
- Seven wide band loudspeakers of 70 mm diameter
- Incorporated filter for optimizing frequency dispersion
- Line transformer for 50, 70, and 100 V constant voltage systems
- Six-position rotary dial for adjusting the sound power delivered in constant voltage systems
- 6-ohm input that can be selected by switch
- Metal front protection grille.

SPECIFICATIONS	CS 2004	CS 2012	CS 2020
Туре	Sound column with transformer	Sound column with transformer	Sound column with transformer
Installation system	Wall mounting	Wall mounting	Wall mounting
Nominal/maximum power	4 / 8 W (4 - 2 - 1 - 0,5 - 0,25 W)	12 / 24 W (12 - 6 - 3- 1,5 W)	20 / 40 W (20 - 10 - 5 - 2,5 W)
mpedance	4 Ω	8 Ω	6 Ω
requency response	250 ÷ 12.000 Hz	250 ÷ 16.000 Hz	250 ÷ 16.000 Hz
Sensitivity	93 dB (1m/1W)	94 dB (1m/1W)	94 dB (1m/1W)
Maximum sound pressure	99 dB / 102 dB	105 dB / 108 dB	107 dB / 110 dB
nput voltage	100 - 70 - 50 - 25 V	100 - 70 - 25 V	100 - 70 - 25 V
angle of coverage	[500 Hz]: 180° horizontal x 180° vertical	180° horizontal x 120° vertical	180° horizontal x 80° vertical
[1.000 Hz]:	160° horizontal x 160° vertical	160° horizontal x 80° vertical	180° horizontal x 60° vertical
[2.000 Hz]:	140° horizontal x 100° vertical	150° horizontal x 40° vertical	170° horizontal x 20° vertical
imensions (LxHxP)	90 x 234 x 65 mm	90 x 402 x 65 mm	90 x 615 x 65 mm
Maximum protrusion	73 mm	73 mm	73 mm
Veight	0,85 Kg	1,9 Kg	3,15 Kg
ccessories included	Supports for wall installation speaker or	Supports for wall installation speaker on wall or ceiling	
Optional accessories		C4E15-034 Replacement speaker - Code no. 841.15.034	
	MA 7W Ball joint support for wall installation Code no. 133.22.032		de no. 133.22.032
Code no.	6082	6083	6084





# CS6520 Code no. 131.50.005 CS6940 Code no. 131.50.006

These systems consist of two-way speakers with very compact dimensions. They adopt a series of innovative technological solutions that guarantee highly intelligible reproduction of the vocal message.

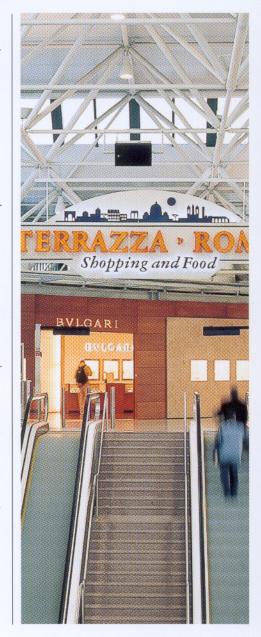
The CS 6520 features 4 round extended-range speakers and a tweeter, while the

CS 6940 model features 8 round extendedrange speakers and a tweeter.

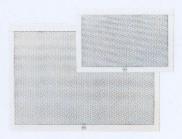
Both models are complete with line transformer for directly connecting the speaker columns to 70 V or 100 V constant-voltage systems and, thanks to multiple sockets, permit selecting the power to be diffused from among various values.

Thanks to IP 66 insulation, the speaker columns can also be used out of doors.

- High directivity for achieving intelligible vocal messages in acoustically critical environments. Ideal for background music.
- 4 speakers diameter 80 mm (3.15") and 1 x 20 mm tweeter (0.79") - CS 6520
- 8 speakers diameter 80 mm (3.15") and 1 x 20 mm tweeter (0.79") - CS 6940
- Compact design, painted aluminium body and front grid in painted steel. White colour RAL 9003.
- Installable in both closed and open environments, thanks to IP 66 insulation. Stainless-steel bolts and screws.
- Transformer for connection to 70 V and 100 V constant voltage lines with possibility of selecting the sound power to be diffused from among various values.
- Sturdy resin articulated support for wall fastening.
- Usable in railway stations, subways, churches, factories, warehouses, PA systems in general.



SPECIFICATIONS	CS 6520	CS 6940
Туре	Wall speaker with transformer	Wall speaker with transformer
Installation system	Orientable - Accessorie included	Orientable - Accessorie included
Nominal/maximum power	20 / 40 W	40 / 80 W
Constant voltage	[100 V]: 20-10-5-2,5 W	[100 V]: 40-20-10-5 W
	[70 V]: 20-10-5-2,5-1,25 W	[70 V]: 40-20-10-5-2,5 W
Maximum sound pressure	107 dB / 110 dB	110 dB / 113 dB
Angle of coverage		
[500 Hz]:	180° horizontal x 80° vertical	180° horizontal x 40° vertical
[1.000 Hz]:	180° horizontal x 40° vertical	180° horizontal x 20° vertical
[2.000 Hz]:	140° horizontal x 20° vertical	180° horizontal x ≤20° vertical
Frequency response	120 Hz - 20 KHz	100 Hz - 20 KHz
Sensitivity 1W/1m	94 dB	94 dB
Dimensions (I x a x p)	114 x 580 x 96 mm	114 x 956 x 96 mm
Maximum protrusion	184 mm	184 mm
Weight	4,2 Kg	7 Kg
Speaker	4 x 3,5" + 1 x TW 3/4"	8 x 3,5" + 1 x TW 3/4"
Colour	White RAL 9003	White RAL 9003
Connectors	Multipolar cable	Multipolar cable
Cutt off frequency	10 KHz	10 KHz
Code no.	131.50.005	131.50.006



### E.LI.S.A.50 Code no. 131.70.071 E.LI.S.A.100 Code no. 131.10.072

#### FLUSH-MOUNT SPEAKERS

Superior quality speakers with attractive, contemporary designs and quick, easy installation. The E.LI.S.A. 50 can be used in smaller spaces when used individually, or in larger environments when several speakers are used together. The E.LI.S.A. 100 is ideal for use in environments that require high fidelity sound reproduction. It, too, can be used in smaller spaces when used individually, or in larger environments when several speakers are used

- Elegant front cover-plate in RAL 9010 white plastic with metallic protection grille
- Carbon fibre diaphragm (E.LI.S.A. 50)
- Coaxial loudspeaker (E.LI.S.A. 100)
- Equipped with a line transformer for constant voltage systems
- A 25 V socket makes it possible to connect multiple speakers in parallel to a constant impedance line
- Magnetic cover-plate hooking for quick and easy installation
- Factory-fitted for connection with a constant impedance attenuator (E.LI.S.A. 100 only)

131.10.071

Code no



### **DA1/N** Code no. 131.10.086

#### FLUSH-MOUNT SPEAKER

Suitable for small spaces when used individually, or for larger environments when multiple speakers are used. Various application solutions are possible in combination with RCF attenuators.

- Wall panel in RAL 9003 white painted aluminium
- Wide band elliptical loudspeaker
- A line transformer for constant voltage systems can be incorporated.



### **DP3011** Code no. 6099

# FLUSH-MOUNT SPEAKER WITH OPTIONAL ENCLOSURE

Excellent reproduction of both speech and music. The DP 3011 is factory-set to deliver 20 W maximum power, but the multi-tapped transformer makes it possible to select lower powers. It can be installed in walls using the flush-mounting box or set on furniture. Ideal for high fidelity applications. The attractive design makes this speaker easy to integrate into any environment

- Body in RAL 9003 white plastic
- Ø 130 mm woofer with treated cellulose fibre diaphragm
- Ø 25 mm dome tweeter with Mylar diaphragm and coil cooled in ferrofluid
- Multi-tapped line transformer for constant voltage systems
- 25V input for connecting multiple speakers in parallel to a constant impedance line
- Metal protection grille.

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SPECIFICATIONS	E.LI.S.A. 50	E.LI.S.A. 100	DA 1/N	DP 3011
Туре	Wall speaker with transformer	Wall speaker with transformer	Wall speaker	Wall speaker with transformer Two-way
Installation system	Flush-mounted	Flush-mounted	Flush-mounted	Flush-mounted
Nominal/maximum power	6 / 12 W (6 - 3 - 1 W)	10 / 20 W (10 - 5 W)	4 / 8 W	20 / 40 W (20-10-5-2,5-1,25 W)
Constant voltage	100 - 70 - 25 V	100 - 70 - 25 V		100 - 70 - 50 - 25 V
Impedance	20 W / 4 Ω	30 W / 4 Ω	4 Ω	4 Ω
Frequency response	120 ÷ 16.000 Hz	100 ÷ 20.000 Hz	120 ÷ 10.000 Hz	100 ÷ 20.000 Hz
Sensitivity	88 dB (1m/1W)	91 dB (1m/1W)	93 dB (1m/1W)	90 dB (1m/1W)
Maximum sound pressure	96 dB / 99 dB	101 dB / 104 dB	99 dB / 102 dB	103 dB / 106 dB
Angle of coverage				
	[1.000 Hz]:	180°	180° horizontal x 180° vertical	160° horizontal x 160° vertical
	[2.000 Hz]:	160°	130° horizontal x 170° vertical	80° horizontal x 120° vertical
Dimensions (LxHxP)	170 x 110 x 43 mm	260 x 185 x 55 mm	239 x 166 x 60 mm	169 x 284 x 81 mm (AD3001 enclosure
Maximum protrusion	14 mm	18 mm	5 mm	14 mm
Flush-mounting hole	164 x 108 x 70 mm	220 x 155 x 75 mm	220 x 155 x 75 mm (110/A box)	
Weight	0,9 Kg	1,35 Kg	600 g	2,2 Kg
Accessories included	Flush-mounting box with acoustic insulation and attachment screws	110/A flush-mounting box with acoustic insulation and attachment screws	Attachment screws	Flush-mounting box with acoustic insulation and attachment screws
Optional accessories	C1T31-043A Replacement transformer Code no. 817.31.045 L3C Replacement loudspeaker Code no. 211.00.610 AT 1104 Constant impedance attenuator Code no. 131.60.026	C1T31-043A Replacement transformer Code no. 817.31.045 AT 1104 Constant impedance attenuator Code no. 131.60.026 L5CX6 Replacement loudspeaker Code no. 211.00.620	110/A Flush-mounting box Code no. 133.60.003 TD 105 Transformer for constant voltage systems Code no. 133.30.001 C4E15-002 Replacement loudspeaker Code no. 841.15.002	AD 3001 RAL 9003 white cabinet for surface installation Code no. 133.20.065 C4E11-021 Replacement woofer Code no. 841.11.021 C4E13-036 Replacement tweeter Code no. 841.13.036 C1T31-059A Replacement transformer - Code no. 817.31.062

131.10.072



### **HS1026W** Code no. 131.10.062 HS1026G Code no. 131.10.064 **HS1026C** Code no. 131.10.063

#### "SPOTLIGHT" CEILING SPEAKERS

The HS Series are fullrange speakers that can be flush-mounted in false ceilings like normal halogen spots used in lighting systems.

- Body in plastic (ABS), with metal front
- Available in RAL 9003 white (HS 1026W), gold (HS 1026 G), and chrome (HS 1026C)
- Extremely compact dimensions
- Good acoustic features
- Transformer that enables connection with constant voltage lines at 70 V and 100 V
- Possibility to select the sound power to be delivered from various values
- Incorporated filter which enables coupling with a subwoofer to improve reproduction of the low frequencies
- Quick and easy installation in false ceilings of varying thickness thanks to the adaptable spring hooks and the standard size of the mounting hole
- Connection to the amplifier by means of screw terminals

#### **SPECIFICATIONS HS 1026 W** HS 1026 G **HS 1026 C** Ceiling mount Type of speaker 6/12 W (100 V: 3-6 W / Continuous nominal power 70V: 1.5-3-6 VV) 220 - 17,000 Hz Frequency response Sensitivity (1W/1m) 89 dB Maximum sound pressure 102 dB (1mV/maximum power) Input voltage 70 V - 100 V Angle of coverage (-6 dB) (1000 Hz) 170° 180° (2000 Hz) Hole for flush-mounting 92 mm Ø 104 x 91 mm Dimensions (Ø x p) Weight Code no HS 1026W: white Code 131.10.062 HS 1026G: gold Code 131.10.064 HS 1026C: chrome Code 131.10.063



### **DS313/WT** Code no. 6081

#### **CEILING SPEAKER**

Designed to be flush-mounted in false ceilings, the DS 313/WT is ideal for speech and music reproduction in spaces with low ceilings. Wide dispersion, elegant design, and compact dimensions. Quick and easy installation. Possibility to select the output power from among 5 different values. Direct connection in constant voltage systems.

- Body in RAL 9010 white plastic
- Wide band Ø 130 mm loudspeaker
- Metal front protection mesh
- Clips for quick attachment
- Equipped with line transformer for constant voltage systems.



# PL60 Code no. 131.10.214

The PL 60 is a ceiling speaker with an elegant design, intended for recess installation in false ceilings or panels. It is ideal for the reproduction of announcements and background music and features a multiplesocket line transformer for use with constant voltage systems.

- Market Plastic body and white metal grid RAL
- Highly-efficient dual-cone extended range speaker, diameter 160 mm (6")
- Easy to install thanks to a special tripleholdfast system, without the need for screws and other retention parts.
- Transformer for constant voltage 70V-100V lines with pre-selection on four power levels
- Accessory A 1360 available for ceiling installation

SPECIFICATIONS	DS 313/WT	PL 60
Type	Ceiling speaker	Ceiling speaker
Installation system	Flush-mounted	Flush-mounted A1360
Nominal/maximum power	4 / 6 W (4-2-1-0,5-0,25 W)	6 / 10 W
Constant voltage	100-50 V	[100 V]: 6-3-1,5 W
		[70 V]: 6-3-1,5-0,75 W
Speaker Impedance	4 Ω	4 Ω
Frequency response	150 ÷ 12.000 Hz	80 Hz - 14 KHz
Sensitivity	92 dB (1m/1W)	91 dB (1m/1W)
Maximum sound pressure	98 dB / 100 dB	99 dB / 102 dB
Angle of coverage		
[1.000 Hz]:	160°	70°
[2.000 Hz]:	170°	80°
Dimensions (LxHxP)	Ø 189 x 73 mm	Ø 204 x 75 mm
Maximum protrusion	10 mm	6 mm
Hole for flush-mounting	Ø 156 mm	Ø 180 mm
Weight	0.43 kg	0,8 kg
Optional accessories	A 1383 White base for	A 1360 White base for
	surface mounting - Code	surface mounting - Code
	no. 133.20.058	no. 133.20.107
	TD 105 Transformer for	
	constant voltage systems	
	Code no. 133.30.001	
	C4E15-015 Replacement	
	loudspeaker Code no. 841.15.015	
Speaker	5"	6"
Code no.	6081	131.10.214



# PL70BS Code no. 131.10.029

The PL 70 BS is a ceiling speaker featuring a flameproof steel bottom designed for recess installation in false ceilings or panels. It is especially suitable for broadcasting alarm messages thanks to highly intelligible sound reproduction and is resistant to the high temperatures reached during fires. It has the following major features:

- Steel structure with white metal protection grid RAL 9003. Flameproof steel bottom with retention system for speeding up installation operations.
- In conformity with British Standard BS5839 part 8, for speakers used to broadcast alarm messages
- Dual-cone speaker, diameter 160 mm (6"), distinguished by high efficiency and wide frequency response and dispersion.
- Top-quality voice reproduction.
- Terminal connection boards in ceramic material for input and output flameproof cables. Thermal fuse that protects the integrity of the line in case of heat affecting the speaker. Ground screw. Cables inside speaker made using flameproof leads.
- Transformer for connection to constant voltage lines (70 V / 100 V) with possibility of selecting the sound power to be diffused from among various values



### PL80/A Code no. 6089 PL81/A Code no. 6090

#### CEILING SPEAKER

Designed for flush- mounting and wire installation into false ceilings. Both models reproduce both speech and music with the same level of quality. The A 1380 protection can be fitted when required by safety regulations.

The PL 80/A is designed for distributed sound reproduction in large spaces with low to medium low ceilings;

The PL 81/A provides a wider amgle of coverage for large spaces with medium to high ceilings. The PL 81/A can support up to 40 W power and, if used without transformer, can generate a sound pressure of 113 dB.

- Body in RAL 9010 white plastic
- Multi-tapped line transformer included for constant voltage systems
- Twin-cone, wide band, low distortion Ø 200 mm loudspeaker
- Quick fitting of the holder ring and easy bayonet hooking system
- Flame-retardant white plastic body meets UL-94-5VA standards.



## **A1383** Code no. 133.20.058

Base in RAL 9010 white plastic to use for surface mounting the DS 313/WT speaker. Also protects the speakers from dust and moisture when they are flush-mounted. Dimensions: Ø 189 x 68 mm.

**A1360** Code no. 133,20,107

Plastic base to use for surface mounting the PL60 speaker.

A1380 Code no. 133.20.031

Aluminium base to use as fire protection for the PL 80/A and PL 81/A ceiling speakers.

SPECIFICATIONS	PL 70BS	PL 80/A	PL 81/A
Type	Ceiling speaker	Ceiling speaker with transformer	Ceiling speaker with transformer
Installation system	Flush-mounted	Body in flame-retardant material	Body in flame-retardant material
Nominal/maximum power	6 / 10 W	Flush-mounted	Flush-mounted
Constant voltage	[100 V]: 6-3-1,5 W	6 / 15 W (6 - 3 - 1,5 - 0,75 - 0,37 W)	10 / 20 W (10 - 5 - 2,5 - 1,25 W)
	[70 V]: 6-3-1,5-0,75 W	100 - 50 V	100 - 50 V
Speaker Impedance	8 Ω	4 Ω	40 W / 8 Ω
Frequency response	120 Hz - 18 KHz	40 ÷ 18.000 Hz	40 ÷ 20.000 Hz
Sensitivity	93 dB (1 m/1 W)	93 dB (1m/1W)	97 dB (1m/1W)
Maximum sound pressure	101 dB / 104 dB	101 dB / 105 dB (1 m/max. power)	107 dB / 110 dB (1 m/max. power)
Angle of coverage	[1.000 Hz]: 170° • [2.000 Hz]: 90°	[1.000 Hz]: 180° • [2.000 Hz]: 100°	[1.000 Hz]: 170° • [2.000 Hz]: 90°
Dimensions (LxHxP)	Ø 230 x 127 mm	Ø 266 x 100 mm	Ø 266 x 112 mm
Maximum protrusion	16 mm	3 mm	3 mm
Hole for flush-mounting	Ø 200 mm	Ø 244 mm	Ø 244 mm
Weight	2 Kg	1,7 Kg	2,35 Kg
Accessories included		Attachment brackets	Attachment brackets
		Nylon safety wire for	Nylon safety wire for
		facilitating connections	facilitating connections
Optional accessories		C1T31-006A	C1T31-055A Replacement transformer
		Replacement transformer	Code no. 817.31.047
		Code no. 817.31.006	L8CX8 Replacement loudspeaker
		C4E15-027	Code no. 211.10.700
		Replacement loudspeaker	A 1380 Fire guard
		Code no. 841.15.027	Code no. 133.20.031
Speaker	6"		
Codice d'ordine	131.10.029	6089	6090





**LD2414/T** Code no. 131.33.036

#### PLASTIC HORN SPEAKER WITH DRIVER AND TRANSFORMER

- 15W RMS 23W MAX (70/100V)
- Built-in line transformer with multitap power selector on rear cover
- 100V: 15-10-7,5-5-2,5W / 70V: 15-7,5-5-3,75-2,5-1,25W
- Frequency response: 275Hz 7KHz
- Sensitivity 1W/1m: 106dB Max Sound Pressure Level: 118dB / 1m
- Manager Angle of Coverage: 60° HOR X 90° VER @ 1KHz
- Hi-pass filter for protecting driver against out-of-range low-freq
- Double insulation design
- IP 66 construction for indoor-outdoor environmental temperature between -25°C to
- UV-stabilized autoextinguishing UL-HB ABS plastic
- Colour RAL 7035
- Stainless-Steel mounting hardware
- Dimensions: 250mm X 145mm X 272mm length - Weight: 1,6 Kg



### HD3216/T Code no. 131.33,037

#### PLASTIC HORN SPEAKER WITH DRIVER AND TRANSFORMER

- 25W RMS 38W MAX (70/100V)
- Built-in line transformer with multitap power selector on rear cover
- # 100V: 25-20-15-10-5W / 70V: 25-12,5-10-7,5-5-2,5W
- Frequency response: 250Hz 10KHz
- Sensitivity 1W/1m: 108dB Max Sound Pressure Level: 122dB / 1m
- Angle of Coverage: 60° HOR X 130° VER @ 1KHz
- Hi-pass filter for protecting driver against out-of-range low-freg
- Double insulation design
- IP 66 construction for indoor-outdoor environmental temperature between -25°C to
- UV-stabilized autoextinguishing UL-HB ABS plastic
- Colour RAL 7035
- Stainless-Steel mounting hardware
- Dimensions: 310mm X 165mm X 320mm length - Weight: 2,5 Kg



### **HD4020/T** Code no. 131.33.038

### PLASTIC HORN SPEAKER WITH DRIVER AND TRANSFORMER

- 40W RMS 60W MAX (70/100V)
- Built-in line transformer with multitap power selector on rear cover
- 100V: 40-30-20-15W / 70V: 40-20-15-10-7,5W
- Frequency response: 180Hz 7KHz
- Sensitivity 1W/1m: 112dB Max Sound Pressure Level: 128dB / 1m
- Angle of Coverage: 50° HOR X 110° VER @ 1KHz
- Hi-pass filter for protecting driver against out-of-range low-freq
- Double insulation design
- IP 66 construction for indoor-outdoor environmental temperature between -25°C to
- UV-stabilized autoextinguishing UL-HB ABS plastic
- Colour RAL 7035
- Stainless-Steel mounting hardware
- Dimensions: 400mm X 200mm X 420mm length - Weight: 3,9 Kg

SPECIFICATIONS	HD 2414/T	HD 3216/T	HD 4020/T
Туре	15 W - Recttangular, with driver unit and transformer	25 W - Recttangular, with driver unit and transformer	40 W - Recttangular, with driver unit and transformer
Nominal/maximum power	15 / 23 W	25 / 38 W	40 / 60 W
Input voltage	100 / 70 V	100 / 70 V	100 / 70 V
Frequency response	275 - 7.000 Hz	250 - 10.000 Hz	180 - 7.000 Hz
Maximum sound pressure	118 dB	122 dB	128 dB
Angle of coverage	60°x90°	60°x130°	50°x110°
Sensitivity (1W/1m)	106 dB	108 dB	112 dB
Dimensios	250 x 145 x 272 mm	310 x 365 x 320 mm	400 x 200 x 420 mm
Weight	1.6 kg	2.5 kg	3.9 kg



### HD210/T Code no. 131.33.040

# ALUMINIUM HORN SPEAKER WITH DRIVER AND TRANSFORMER

- 20W RMS 30W MAX (70/100V)
- Built-in line transformer with multitap power selector on rear cover
- 100V: 20-10-5-2,5W / 70V: 20-10-5-2,5-1,25W
- Frequency response: 300Hz 9KHz
- Sensitivity 1W/1m: 108 dB Max Sound Pressure Level: 121dB/1m
- Angle of Coverage: 70° @ 2 KHz
- Hi-pass filter for protecting driver against out-of-range low-freq
- Double insulation design
- IP 66 construction for indoor-outdoor environmental temperature between -25°C to +70°C
- Aluminium flare with UV-stabilized autoextinguishing UL-HB ABS rear cover
- Colour RAL 7035
- Mardware Stainless-Steel mounting hardware
- Dimensions: Dia212mm X 290mm Weight: 2,2 Kg



### HD310/T Code no. 131.30.031

#### ALUMINIUM HORN SPEAKER WITH DRIVER AND TRANSFORMER

- 30W RMS 45W MAX (70/100V)
- Built-in line transformer with multitap power selector on rear cover
- 100V: 30-20-15-10-5W 70V: 30-15-10-7,5-5-2.5W
- Frequency response: 240Hz 10KHz
- Sensitivity 1W/1m: 108 dB Max Sound Pressure Level: 123 dB
- Angle of Coverage: 80° @ 2KHz
- Hi-pass filter for protecting driver against out-of-range low-freq
- Double insulation design
- IP 66 construction for indoor-outdoor environmental temperature between -25°C to +70°C
- Aluminium flare with UV-stabilized autoextinguishing UL-HB ABS rear cover
- Colour RAL 7035
- Stainless-Steel mounting hardware
- Dimensions: Dia 310mm X 315mm Weight: 3,1Kg



### HD410/T Code no. 131.33.041

### ALUMINIUM HORN SPEAKER WITH DRIVER AND TRANSFORMER

- 50W RMS 75W MAX (70/100V)
- Built-in line transformer with multitap power selector on rear cover
- 100V: 50-30-25-15W 70V: 50-25-15-12,5-7,5W
- Frequency response: 180Hz 7KHz
- Sensitivity 1W/1m: 112 dB Max Sound Pressure Level: 130dB / 1m
- Marian Angle of Coverage: 90° @ 2KHz
- Hi-pass filter for protecting driver against out-of-range low-freq
- Double insulation design
- IP 66 construction for indoor-outdoor environmental temperature between -25°C to +70°C
- Aluminium flare with UV-stabilized autoextinguishing UL-HB ABS rear cover
- Colour RAL 7035
- Stainless-Steel mounting hardware
- Dimensions: Dia 410 X 385mm Weight: 4,1 Kg

SPECIFICATIONS	HD 210/T	HD 310/T	HD 410/T
Туре	20 W - Round, with driver unit with transformer	30 W - Round, with driver unit with transformer	50 W - Round, with driver unit with transformer
Nominal/maximum power	20 / 30 W	30 / 45 W	50 / 75 W
Input voltage	100 / 70 V	100 / 70 V	100 / 70 V
Frequency response	300 - 9.000 Hz	240 - 10.000 Hz	180 - 7.000 Hz
Maximum sound pressure	121 dB	123 dB	130 dB
Angle of coverage	70°	80°	90°
Sensitivity (1W/1m)	108 dB	108 dB	112 dB
Dimensios	Ø 212 x 290 mm	Ø 310 x 315 mm	Ø 410 x 385 mm
Weight	2.2 kg	3.1 kg	4.1 kg
Optional accessories		M 99 Replacement diaphragm 16 $\Omega$	

Code no



# **HD3216** Code no. 131.33.039

### PLASTIC HORN SPEAKER WITH DRIVER

- ≥ 25W RMS 38W MAX (8 0hm)
- Frequency response: 250Hz 10KHz
- Sensitivity 1W/1m: 108 dB Max Sound Pressure Level: 122dB / 1m
- Angle of Coverage: 60° HOR X 130° VER @
- Hi-pass filter for protecting driver against out-of-range low-freq
- IP 66 construction for indoor-outdoor environmental temperature between -25°C to +70°C
- UV-stabilized autoextinguishing UL-HB ABS plastic
- Colour RAL 7035
- Mardware Stainless-Steel mounting hardware
- Dimensions: 310mm X 165mm X 290mm length - Weight: 2,1 Kg



### HD125/T Code no. 131.30.009

### **DIE-CAST ALUMINIUM HORN SPEAKER** WITH DRIVER AND TRANSFORMER

Compact horn speaker for voice reproduction in paging applications.

- Body in RAL 7035 grey die-cast aluminium
- Supplied with attachment bracket
- Sturdy watertight construction IP 55
- Transformer for changing output level



# **216/ST** Code no. 131.30.035

### DIE-CAST ALUMINIUM HORN SPEAKER WITH DRIVER AND TRANSFORMER

Particularly compact, sturdy, and weatherresistant the HD 216/ST delivers a high level of sound directivity and faithful voice reproduction. It can be used both indoors and outdoors, even in the most severe weather conditions. Installation is quick and easy. The HD 216/ST can be used in constant voltage sound systems.

- Body in RAL 7035 grey die-cast aluminium
- Supplied with attachment bracket
- Watertight construction IP 55
- Excellent mechanical and acoustic featu-
- Transformer for changing output level

SPECIFICATIONS	HD 3216	HD 125/T	HD 216/ST
Туре	20 W - Round, with driver unit	10 W - Round, with driver unit	20 W - Round, with driver unit
	Without transformer	and transformer	and transformer
Nominal/maximum power	25 / 34 W	10 / 20 W (10 - 5 - 2,5 W)	20 / 30 W (20 - 10 - 5 - 2,5W)
Speaker impedance	8 Ω	16 Ω	16 Ω
Input voltage		100 - 70 - 25 V	100 - 70 - 25 V
Frequency response	250 - 10.000 Hz	750 - 13.000 Hz	350 - 15.000 Hz
Cutoff frequency	250 Hz	750 Hz	350 Hz
Maximum sound pressure	122 dB	117 dB / 120 dB	121 dB / 123 dB
Angle of coverage	60°x130°	180°	130°
Sensitivity (1W/1m)	108 dB	107 dB	108 dB
Dimensios	Ø 310 x 165 x 290 mm	Ø 120 x 180 mm	Ø 215 x 300 mm
Weight	2.1kg	0,91 kg	3,2 kg
Optional accessories		M 3 Replacement diaphragm 16 Ω	M 26 Replacement diaphragm 16 Ω
		Code no. 154.10.005	Code no. 154.10.028
Code no.	131.33.039	131.30.009	131.30.035



### HD1110

#### PLASTIC HORN SPEAKER WITH DRIVER

Extremely compact horn speaker with high acoustic output. The HD 1110 is particularly suitable for use in call or alarm systems in places with a high level of background noise. Fully protected against atmospheric agents, it can also be used outdoors.

- Body in RAL 7035 grey plastic
- Solid, compact construction
- Attachment bracket supplied.
- Available in 8 ohm or 16 ohm impedance versions



### **HD550/HFT** Code no. 131.30.041

# TWO-WAY EXTENDED RANGE HORN SPEAKER

Horn speaker with high-fidelity characteristics. Its extended frequency response and high efficiency make it suitable for high level reproduction of both voice and music. The sturdy sealed mechanical construction and use of waterproofed transducers and galvanized attachment bracket make this speaker resistant to shock, severe weather, and atmospheric agents. The HD 550 HFT can be used in constant voltage sound systems. The neutral colour makes it easy to integrate into any environment.

- RAL 7001 grey painted aluminium horn.
- Suitable for outdoor installations
- Galvanized attachment bracket
- 250 mm wide band loudspeaker and compression tweeter with plastic diaphragm and ferrofluid in the air gap
- Switch with 4 positions + off for power adjustment



# 6045 Code no. 131.20.011

#### HORN SPEAKER

Fiberglass horn designed to withstand the most adverse weather conditions, offering high sound reproduction quality and sound pressure levels. A high level of efficiency and sound pressure can be obtained thanks to the use of four dynamic driver units.

- Long-throw horn speaker
- Body in RAL 9003 white fiberglass
- 1-3/8" W 18 N threaded connector for driver unit
- Attachment bracket
- Watertight construction

SPECIFICATIONS	HD 1110	HD 550/HFT	H 6045
Туре	20 W - Round, with driver unit	50 W - Round, two-way Equipped with transformer	Rectangular - To be combined with 4 driver units model D 5076
Nominal/maximum power	20 / 30 W	50 / 100 W (50 - 25 - 12,5W)	
Speaker Impedance	$8 \Omega$ or $16 \Omega$ (depending on model)	8 Ω	
Input voltage		100 - 70 - 25 V	
Frequency response	900 - 13.000 Hz	100 - 18.000 Hz	
Cutoff frequency	900 Hz	130 Hz	150 Hz
Maximum sound pressure	116 dB	123 dB	132 dB SPL with 4 D 5076 units
Angle of coverage	180°	[1.000 Hz]: 50°	40° hor. x 40° vert.
		[2.000 Hz]: 20°	40° hor. x 20° vert.
Sensitivity (1W/1m)	101 dB	103 dB	
Dimensions	Ø 110 x 93 mm	Ø 535 x 355 mm	620 x 475 x 560 mm
Weight	0.82 Kg	9 Kg	9.8 Kg
Optional accessories	M 25 Replacement diaphragm for 8-ohm version - Code no. 154.10.027 M 24 Replacement diaphragm for 16-ohm version - Code no. 154.10.026	L10/550 Replacement woofer Code no. 211.10.780 Replacement tweeter - Code no. 251.10.380 M 16 Replacement diaphragm for tweeter - Code no. 154.10.001 C1T31-019A Replacement transformer - Code no. 817.31.019	D 5076 Code no. 151.10.017 TD 507 Transformer Code no. 133.30.006
Code no.	131.33.030 Mod. HD 1110 / 8 Ω 131.30.030 - Mod. HD 1110 / 16 Ω	131.30.035	131.20.011