



# Loudspeakers

EN 54-24

## Tailored to different solutions

- ✓ Voice Alarm Loudspeakers EN 54-24
- ✓ Voice Alarm A/B Loudspeakers
- ✓ Special Application Loudspeakers
- ✓ SIP Loudspeakers
- ✓ Public Address Loudspeakers

# ABT-LA30 / ABT-LA60

EN 54-24

## LINE ARRAY LOUDSPEAKERS COLUMNS

- ✓ Compliance with EN 54-24
- ✓ Certificate of Conformity issued by CNBOP: 1438-CPR-0574
- ✓ Compliance with BS5839-8 standard (thermal protection)

ABT-LA fire-alarm loudspeakers mean a new quality among the facilities of the kind. ABT-LA30 and ABT-LA60 units are line-array loudspeaker columns, which means they ensure considerably farther reach than conventional units at simultaneous maintenance of high uniformity of sound level in the area of broadcasting. Being line-array acoustic sources, ABT-LA columns feature a unique high directionality in vertical plane so that the sound they generate will rather go exactly towards the controlled audio-space instead of unwanted areas, such as e.g. ceiling or floor. ABT-LA columns are mostly designed for the rooms with high reverberation time as well as for other places where the quality of speech is reduced due to unfavourable conditions.

The ABT-LA design allows easy mechanical and electrical integration of the two columns into a single consistent unit which becomes a loudspeaker with higher power output and farther reach. It makes a better use of the benefits offered by the line-array source. Variable geometry of the column allows generating two sound beams to be randomly sent at various angles to the two different areas. Sound transfer band of the ABT-LA columns has been designed to achieve the highest possible fidelity of speech signal reproduction and to ensure unchallenged parameters of the quality of speech, all as required by the standards applicable to the Voice Evacuation Systems.

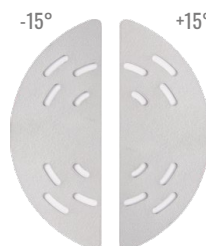
Solid aluminium enclosure, steel assembly jigs, and IP 65 guarantee long-term failure-free operations under any conditions, both in outdoor and indoor environments. The columns are entirely dustproof and resistant to the impact of direct water jet.



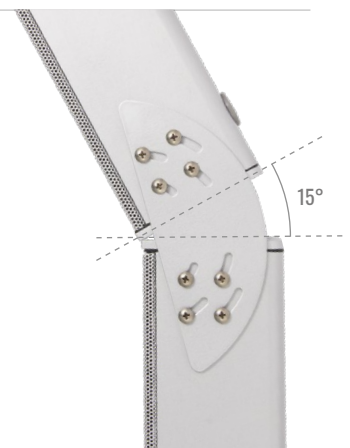
ABT-LA60



ABT-LA30



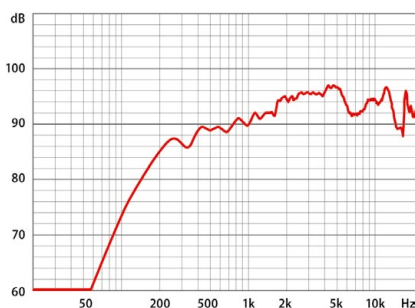
Connect angle:  
-15° ÷ +15°



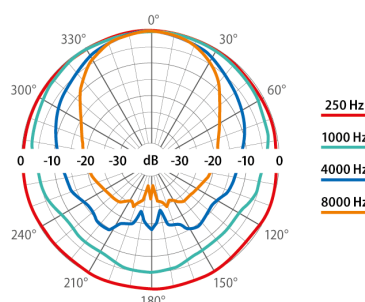
	ABT-LA30	ABT-LA60
<b>Electrical</b>		
Maximum power, W	48	96
Rated power, W	30	60
Tappings 100 V line according to EN 54-24, W	30 / 15 / 7,5 / 3,8	60 / 30 / 15 / 7,5
Tappings 70 V line	15 / 7,5 / 3,8 / 1,9	30 / 15 / 7,5 / 3,8
Transformer impedance @ 100 V, Ω	333,3 / 666,6 / 1333,3 / 2631,5	166,6 / 333,3 / 666,6 / 1333,3
Driver impedance, Ω	12	6
Effective frequency range, Hz	140–20 000	100–20 000
Sensitivity @ 4 m, 1 W, dB	77	79
SPL @ 4m, rated power, dB	90	94
SPL @ 1 m, 1 W, dB, test signal bandwidth 300Hz–6 kHz*	93	95
SPL @ 1 m, rated power, db, test signal bandwidth 300Hz–6 kHz*	105	109
Horizontal dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]	360 / 220 / 185 / 120	360 / 215 / 185 / 115
Vertical dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]	250 / 75 / 35 / 15	95 / 35 / 15 / 5
<b>Environmental</b>		
Environmental type / IP rating according to EN 54-24	B / IP33C	B / IP33C
IP rating**	65	65
Min./max. ambient temperature	-25°C / 70°C	-25°C / 70°C
<b>Mechanical</b>		
Dimensions H×W×D, mm	510×80×110	870×80×110
Net weight, kg	3,1	4,9
Colour	Silver (RAL 9006)	Silver (RAL 9006)
Enclosure material	Aluminium	Aluminium
<b>Option</b>		
For DC line monitoring	Capacitor	Capacitor
Colour optional	RAL palette	RAL palette
<b>Ease Model</b>		
	✓	✓

### ABT-LA30

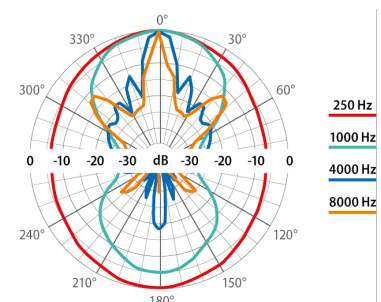
Frequency band:



Circular chart of directional characteristic – horizontal:

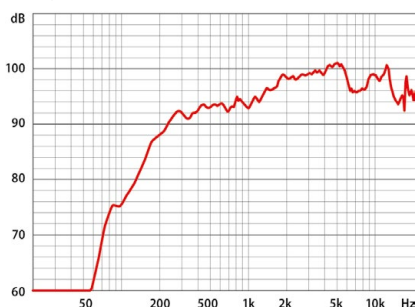


Circular chart of directional characteristic – vertical:

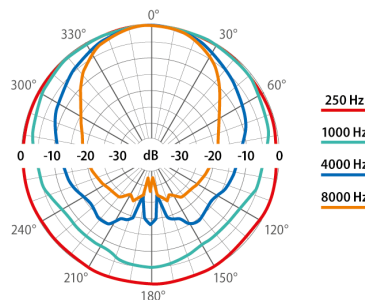


### ABT-LA60

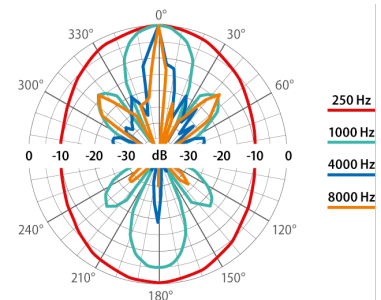
Frequency band:



Circular chart of directional characteristic – horizontal:



Circular chart of directional characteristic – vertical:



# ABT-W6

EN 54-24

## WALL-MOUNTED LOUDSPEAKER

- ✓ *Compliance with EN 54-24*
- ✓ *Certificate of Conformity issued by CNBOP: 1438-CPR-0654*
- ✓ *Compliance with BS5839-8 standard (thermal protection)*
- ✓ *Available in white and black*



The ABT-W6 is an elegant multi-function loudspeaker designed to guarantee the highest acoustic parameters. Its solid casing offers an effective protection against acts of vandalism. The loudspeaker can be mounted either on a wall or on a ceiling.

Additionally, the ABT-W6 loudspeaker can be fixed as an recessed speaker and therefore it is an ideal solution for rooms where aesthetic factors play a significant role.

The loudspeaker offers adjustable power regulation through connectivity to applicable transformer tapings thus allowing suitable acoustic pressure (the level of sound) within areas of sound emission adequately to the acoustic conditions existing in those areas.

## CHARACTERISTICS

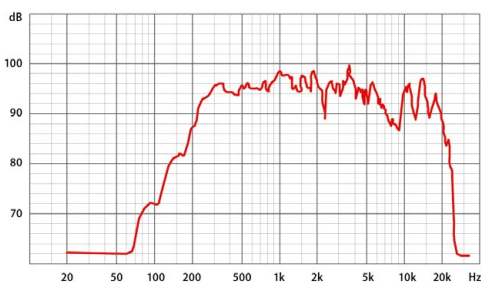
- » *Easy and quick to mount*
- » *Modern and elegant design*
- » *High quality sound of both speech and music*
- » *Ideal for on-wall or in-wall mounting*



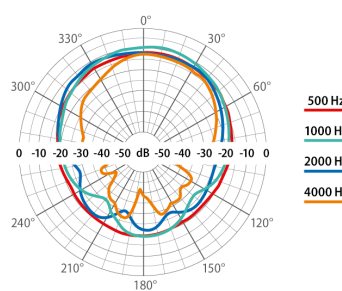
BLACK VERSION

	<b>ABT-W6</b>
<b>Electrical</b>	
Rated power, W	6
Tappings 100 V line according to EN 54-24, W	6/3/1,5/0,75
Tappings 70V line, W	3/1,5/0,75/0,37
Transformer impedance @ 100 V, Ω	1667/3333/6667/13333
Driver impedance, Ω	8
Effective frequency range, Hz	120–20 000
Sensitivity @ 4 m, 1 W, dB	79
SPL @ 4 m, rated power, dB	85
SPL @ 1 m, 1 W, dB, test signal bandwidth 300 Hz–6 kHz	94
SPL @ 1 m, rated power, dB, test signal bandwidth 300 Hz–6 kHz	101
Dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]	180 / 180 / 163 / 80
<b>Environmental</b>	
Environmental type / IP rating according to EN 54-24	A / IP21C
IP rating	32
Min./max. ambient temperature	-10°C / 55°C
<b>Mechanical</b>	
Dimensions, mm	260 × 180 × 80
Net weight, kg	1,75
Colour	White (RAL 9003) / Black (RAL 9011)
Material	Steel
Mounting	Screw
<b>Option</b>	
For DC line monitoring	Capacitor (ABT-W6C)
Colour optional	RAL palette
<b>Ease Model</b>	
	✓

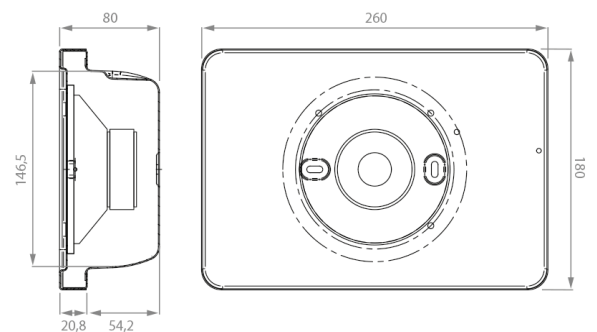
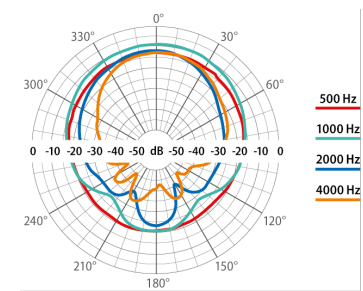
Frequency band:



Circular chart of directional characteristic – horizontal:



Circular chart of directional characteristic – vertical:



# ABT-W6W

## WALL-MOUNTED LOUDSPEAKER

- ✓ *Compliance with EN 54-24*
- ✓ *Certificate of Conformity: 1438-CPR-0699*
- ✓ *Compliance with BS5839-8 standard (thermal protection)*



The ABT-W6W is an elegant multi-function loudspeaker designed to guarantee the highest acoustic parameters. The loudspeaker can be mounted either on a wall or on a ceiling.

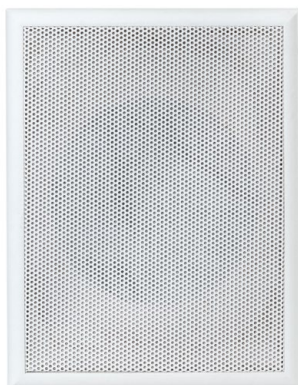
Our loudspeakers are perfect on any circulation routes and in staircases located in shopping centres, offices, schools, hotels, hospitals, and industrial buildings. The loudspeaker mingles well with any interior and is virtually invisible thanks to its small dimensions and neat white finish. The loudspeaker offers adjustable power regulation through connectivity to

applicable transformer tapings thus allowing suitable acoustic pressure (the level of sound) within areas of sound emission adequately to the acoustic conditions existing in those areas.

To be quite sure our loudspeakers comply with the highest quality standards we test them thoroughly following the most meticulous procedures that warrant excellent parameters of sound emission, safety, and reliability. They are also recommended for use in any and all public address systems.

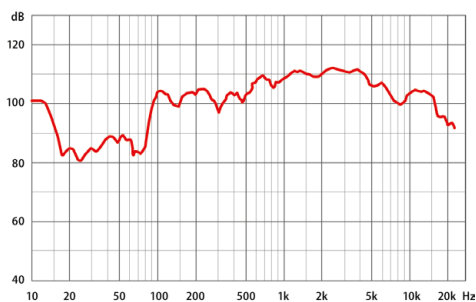
## CHARACTERISTICS

- » *Easy and quick to mount*
- » *Modern and elegant design*
- » *High quality sound of both speech and music*
- » *Ideal for wall installation*
- » *6 W transformer with multiple branches ensuring accurate selection of output power*

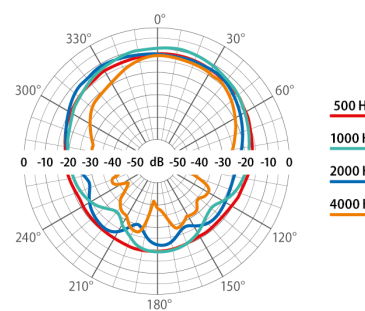


	ABT-W6W
<b>Electrical</b>	
Rated power, W	6
Tappings 100 V line according to EN 54-24, W	6 / 3 / 1,5 / 0,75
Tappings 70V line, W	3 / 1,5 / 0,75 / 0,37
Transformer impedance @ 100 V, $\Omega$	1667 / 3333 / 6667 / 13333
Driver impedance, $\Omega$	8
Effective frequency range, Hz	130–20 000
Sensitivity @ 4 m, 1 W, dB	78
SPL @ 4 m, rated power, dB	84
SPL @ 1 m, 1 W, dB, test signal bandwidth 300 Hz–6 kHz	90
SPL @ 1 m, rated power, dB, test signal bandwidth 300 Hz–6 kHz	96
Horizontal dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]	320 / 160 / 95 / 70
Vertical dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]	290 / 140 / 100 / 70
<b>Environmental</b>	
Environmental type / IP rating according to EN 54-24	A / IP21C
IP rating	32
Min./max. ambient temperature	-10°C / 55°C
<b>Mechanical</b>	
Dimensions, mm	254 × 196 × 78
Net weight, kg	1,8
Colour	White (RAL 9003)
Material	MDF
Mounting	Screw
<b>Option</b>	
For DC line monitoring	Capacitor (ABT-W6WC)
<b>Ease Model</b>	
	✓

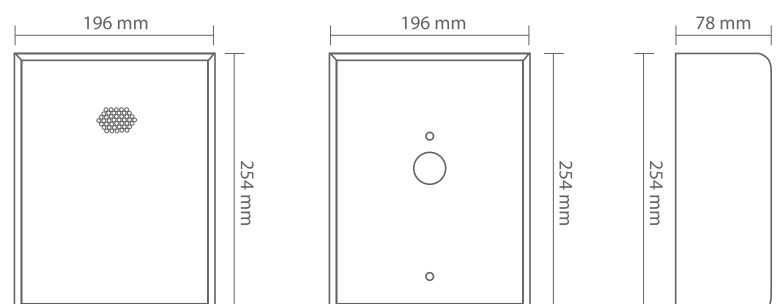
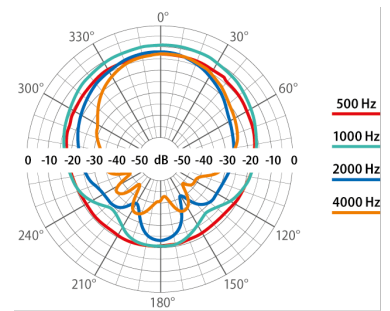
Frequency band:



Circular chart of directional characteristic – horizontal:



Circular chart of directional characteristic – vertical:



# ABT-SW176

EN 54-24

## SURFACE MOUNTED LOUDSPEAKER

- ✓ *Compliance with EN 54-24*
- ✓ *Certificate of Conformity:  
1438-CPR-0738*
- ✓ *Compliance with BS5839-8 standard  
(thermal protection)*
- ✓ *Available in white and black*



The ABT-SW176 is an elegant multi-function loudspeaker designed to guarantee the highest acoustic parameters. The loudspeaker can be mounted either on a wall or on a ceiling.

Our loudspeakers are perfect on any circulation routes and in staircases located in shopping centres, offices, schools, hotels, hospitals, and industrial buildings.

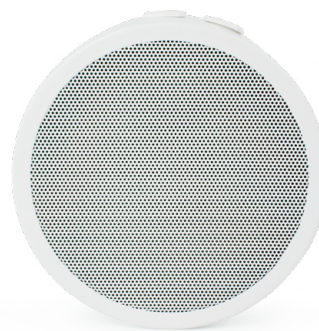
The loudspeaker mingles well with any interior and is virtually invisible thanks to its small dimensions and neat white finish.

The loudspeaker offers adjustable power regulation through connectivity to applicable transformer tapings thus allowing suitable acoustic pressure (the level of sound) within areas of sound emission adequately to the acoustic conditions existing in those areas.

To be quite sure our loudspeakers comply with the highest quality standards we test them thoroughly following the most meticulous procedures that warrant excellent parameters of sound emission, safety, and reliability. They are also recommended for use in any and all public address systems.

## CHARACTERISTICS

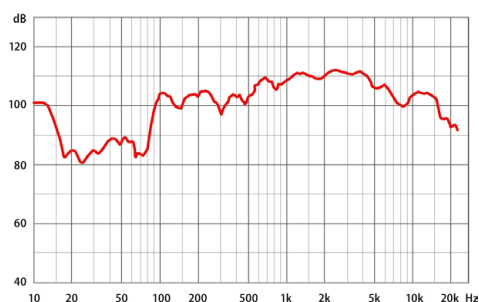
- » *Easy and quick to mount*
- » *Modern and elegant design*
- » *High quality sound of both speech and music*
- » *Ideal for on-wall or on-ceiling mounting*
- » *6 W transformer with multiple branches ensuring accurate selection of output power*



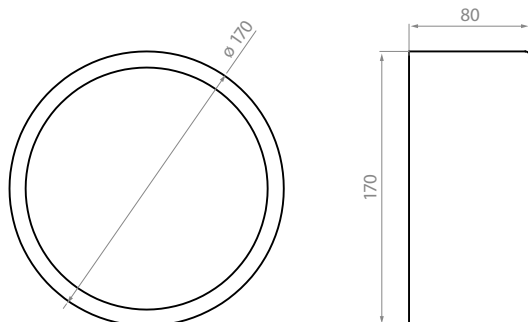
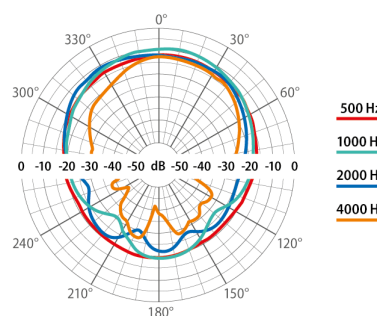


	ABT-SW176
<b>Electrical</b>	
Rated power, W	6
Tappings 100 V line according to EN 54-24, W	6 / 3 / 1,5 / 0,75
Tappings 70V line, W	3 / 1,5 / 0,75 / 0,37
Transformer impedance @ 100 V, $\Omega$	1667 / 3333 / 6667 / 13333
Driver impedance, $\Omega$	8
Effective frequency range, Hz	130–20 000
Sensitivity @ 4 m, 1 W, dB	79
SPL @ 4 m, rated power, dB	85
SPL @ 1 m, 1 W, dB, test signal bandwidth 300 Hz–6 kHz	91
SPL @ 1 m, rated power, dB, test signal bandwidth 300 Hz–6 kHz	97
Dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]	180 / 180 / 90 / 65
<b>Environmental</b>	
Environmental type / IP Rating according to EN 54-24	A / IP21C
IP Rating	32
Min./max. ambient temperature	-10°C / 55°C
<b>Mechanical</b>	
Dimensions, mm	Height 80, $\varnothing$ 170
Net weight, kg	1,2
Colour	White (RAL 9003) / Black (RAL 9011)
Material	Steel
Mounting	Screw
<b>Option</b>	
For DC line monitoring	Capacitor (ABT-SW176C)
Colour optional	RAL palette
<b>Ease Model</b>	✓

Frequency band:



Circular chart of directional characteristic:



# ABT-S226

## CEILING-MOUNTED LOUDSPEAKERS

- ✓ Full compliance with EN 54-24 Standard
- ✓ Certificate of Conformity:  
1438-CPR-0898
- ✓ Compliance with BS5839-8 standard  
(thermal protection)



EN 54-24

**NEW!**

Ceiling mounted fire alarm ABT-S226 loudspeaker is designed for operations at high acoustic levels and the highest reduction in power supply. Actual wide band high efficiency ensures the best understanding of verbal messages. Its parameters have been carefully selected to comply with suspended ceiling applications, both at standard and considerably elevated ceiling-to-floor distance.

Quality standards and audio characteristics have been confirmed through tests and trials in an anechoic chamber, resistance and integrity testing equipment, as well as chambers for resistance to weather and air humidity testing.

The ABT-S206B loudspeaker ensure a balanced sound which is extremely important in emission of highly understandable speech.

The ABT-S206B loudspeaker is noticeable thanks to its elegant looks. The loudspeaker part which becomes visible after the installation is covered by a common and aesthetic white paint coat (RAL 9003) – optionally available other colours (RAL palette).

ABT-S226 is equipped with a standardized fire dome made of soft steel and supplied with two cable penetrations with rubber glands. Special jig for sling assembling facilitates quick installation. Ceramic blocks and fireproof wiring coupled with temperature limit fuse are located inside fire dome.

The individual power rating is selected by means of connection with applicable transformer branch.

ABT-S series loudspeakers equipped with fire dome and thermal protections entirely comply with EN 54-24 Standards. In order to ensure 100% consistency with the highest quality standards we test our loudspeakers following the most meticulous procedures that warrant high parameters of sound emission, safety, and reliability.

In spite of the fact our loudspeaker is designed for the highest reliability under fire conditions, their acoustic parameters and attractive low prices make them successful in any and all public address systems.

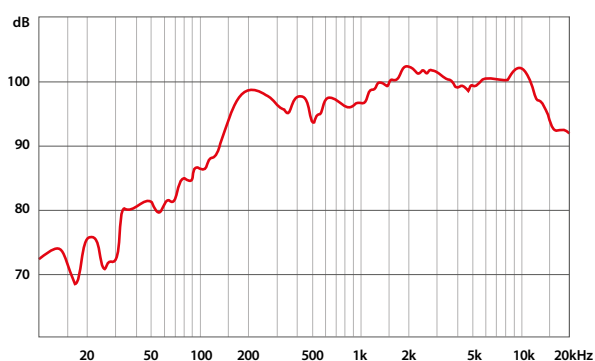
## CHARACTERISTICS

- » **The highest level of speech intelligibility**
- » **Elegant looks**
- » **6 W transformer allowing a precise selection of loudspeaker output power**
- » **100% protection of line from breaks and short-circuits**

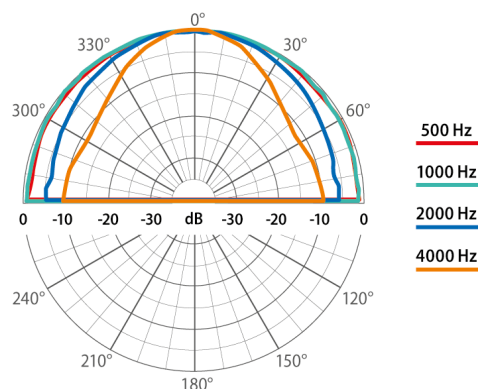


		<b>ABT-S226</b>
<b>Electrical</b>		
Rated power, W		6
Tappings 100 V line according to EN 54-24, W		6 / 3 / 1,5 / 0,75
Tappings 70 V line, W		3 / 1,5 / 0,75 / 0,37
Transformer impedance @ 100 V, $\Omega$		1667 / 3333 / 6667 / 13333
Driver impedance, $\Omega$		8
Effective frequency range, Hz		120 – 20 000
Sensitivity @ 4 m, 1 W, dB		80
SPL @ 4 m, rated power, dB		87
SPL @ 1 m, 1 W, dB, test signal bandwidth 300 Hz – 6 kHz		93
SPL @ 1 m, rated power, dB, test signal bandwidth 300 Hz – 6 kHz		101
Dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]		180 / 170 / 95 / 70
<b>Environmental</b>		
Environmental type / IP rating according to EN 54-24		A / IP21C
IP rating		32C
Min./max. ambient temperature		-10°C / 55°C
<b>Mechanical</b>		
Dimensions, mm		Height 115, $\varnothing$ 220
Net weight, kg		1,44
Colour		White (RAL 9003)
Material		Steel
Mounting		Spring clamp
Cut-out, mm		$\varnothing$ 205
<b>Option</b>		
For DC line monitoring		Capacitor (ABT-S226C)
Colour optional		RAL palette
<b>Ease Model</b>		

Frequency band:



Circular chart of directional characteristic:



# ABT-S206

## CEILING-MOUNTED LOUDSPEAKER

- ✓ *Full compliance with EN 54-24 Standards*
- ✓ *Certificate of Conformity: 1438-CPR-0622 EN 54-24*
- ✓ *Compliance with BS5839-8 standard (thermal protection)*



Ceiling mounted fire alarm ABT-S206 loudspeaker is designed for operations at high acoustic levels and the highest reduction in power supply. Actual wide band high efficiency ensures the best understanding of verbal messages. Its parameters have been carefully selected to comply with suspended ceiling applications, both at standard and considerably elevated ceiling- to-floor distance. Thanks to the most advanced technologies ABT-S206 loudspeaker combines excellent acoustic parameters and high aesthetics with resistance to mechanical damages. It is distinguished by easy and quick installation.

Quality standards and audio characteristics have been confirmed through multiple tests and trials employing such facilities as e.g. echoproof chamber, resistance and integrity testing equipment. The ABT-S206 loudspeaker ensure a balanced sound which is extremely important in emission of highly understandable speech and reliable music reproduction.

The ABT-S206 loudspeaker is noticeable thanks to its elegant looks. The loudspeaker part which becomes visible after

the installation is protected by means of electroplating and covered by a common and aesthetic white paint coat (RAL 9003) – optionally available other colours (RAL palette). ABT-S206 is equipped with a standardized fire dome made of soft steel and supplied with two cable penetrations with rubber glands. Special jig for sling assembling facilitates quick installation. Two ceramic blocks and fireproof wiring coupled with temperature limit fuse are located inside fire dome. The individual power rating is selected by means of connection with applicable transformer branch.

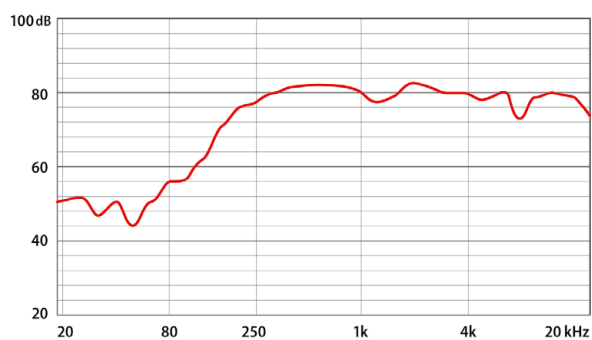
ABT-S206 loudspeaker equipped with fire dome and thermal protections entirely comply with EN 54-24 Standards. In order to ensure 100% consistency with the highest quality standards we test our loudspeaker following the most meticulous procedures that warrant high parameters of sound emission, safety, and reliability. In spite of the fact our loudspeaker is designed for the highest reliability under fire conditions, their acoustic parameters and attractive low prices make them successful in any and all public address systems.

## CHARACTERISTICS

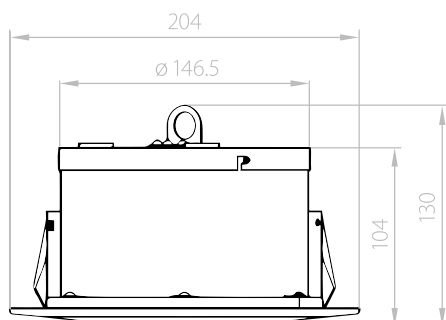
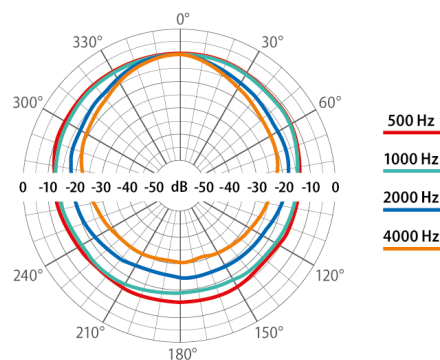
- » ***Highest level of speech intelligibility***
- » ***6-watt transformer allowing precise selection of the speaker power***
- » ***Modern and elegant design***
- » ***High quality sound of both speech and music***

		ABT-S206
<b>Electrical</b>		
Rated power, W		6
Tappings 100 V line according to EN 54-24, W		6 / 3 / 1,5 / 0,75
Tappings 70 V line, W		3 / 1,5 / 0,75 / 0,38
Transformer impedance @ 100 V, $\Omega$		1667 / 3333 / 6667 / 13333
Driver impedance, $\Omega$		8
Effective frequency range, Hz		82–20000
Sensitivity @ 4 m, 1 W, dB		79
SPL @ 4 m, rated power, dB		86
SPL @ 1 m, 1 W, dB, test signal bandwidth 300 Hz–6 kHz		91
SPL @ 1 m, rated power, dB, test signal bandwidth 300 Hz–6 kHz		99
Dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]		180 / 180 / 160 / 85
<b>Environmental</b>		
Environmental type / IP rating according to EN 54-24		A / IP21C
IP rating		32C
Min./max. ambient temperature		-10°C / 55°C
<b>Mechanical</b>		
Dimensions, mm		Height 130, $\varnothing$ 204
Net weight, kg		1,34
Colour		Biały (RAL 9003)
Material		Steel
Mounting		Spring clamp
Cut-out, mm		$\varnothing$ 170
<b>Option</b>		
For DC line monitoring		Capacitor (ABT-S206C)
Colour optional		RAL palette

Frequency band:



Circular chart of directional characteristic:



# ABT-S206B

## CEILING-MOUNTED LOUDSPEAKERS

- ✓ *Full compliance with EN 54-24 Standard*
- ✓ *Certificate of Conformity:  
1438-CPR-0605*
- ✓ *Compliance with BS5839-8 standard  
(thermal protection)*
- ✓ *Available in white and black*



Ceiling mounted fire alarm ABT-S206B loudspeaker is designed for operations at high acoustic levels and the highest reduction in power supply. Actual wide band high efficiency ensures the best understanding of verbal messages. Its parameters have been carefully selected to comply with suspended ceiling applications, both at standard and considerably elevated ceiling-to-floor distance.

Thanks to the most advanced technologies ABT-S206B loudspeaker combines excellent acoustic parameters and high aesthetics with resistance to mechanical damages. It is distinguished by easy and quick installation.

Quality standards and audio characteristics have been confirmed through tests and trials in an anechoic chamber, resistance and integrity testing equipment, as well as chambers for resistance to weather and air humidity testing.

The ABT-S206B loudspeaker ensure a balanced sound which is extremely important in emission of highly understandable speech.

The ABT-S206B loudspeaker is noticeable thanks to its elegant looks. The loudspeaker part which becomes visible after the

installation is covered by a common and aesthetic white paint coat (RAL 9003) – optionally available other colours (RAL palette).

ABT-S206B is equipped with a standardized fire dome made of soft steel and supplied with two cable penetrations with rubber glands. Special jig for sling assembling facilitates quick installation. Ceramic blocks and fireproof wiring coupled with temperature limit fuse are located inside fire dome. The individual power rating is selected by means of connection with applicable transformer branch.

ABT-S series loudspeakers equipped with fire dome and thermal protections entirely comply with EN 54-24 Standards. In order to ensure 100% consistency with the highest quality standards we test our loudspeakers following the most meticulous procedures that warrant high parameters of sound emission, safety, and reliability.

In spite of the fact our loudspeaker is designed for the highest reliability under fire conditions, their acoustic parameters and attractive low prices make them successful in any and all public address systems.

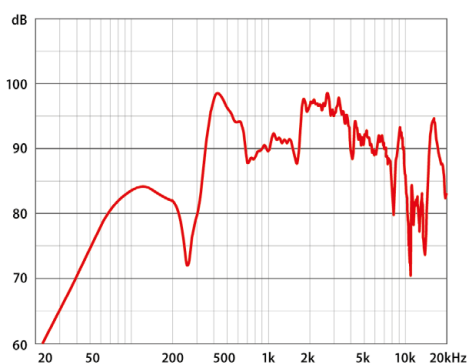
## CHARACTERISTICS

- » *The highest level of speech intelligibility*
- » *Elegant looks*
- » *6 W transformer allowing a precise selection of loudspeaker output power*
- » *100% protection of line from breaks and short-circuits*

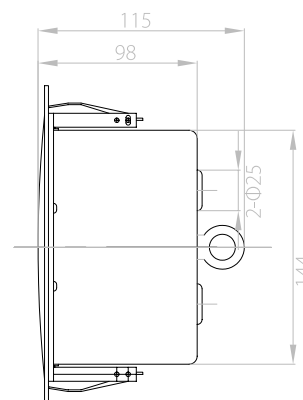
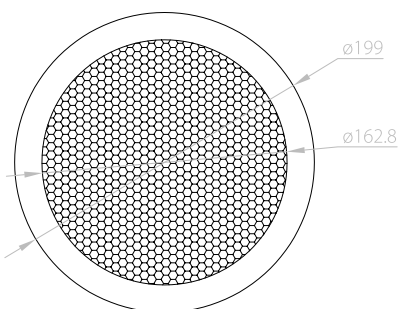
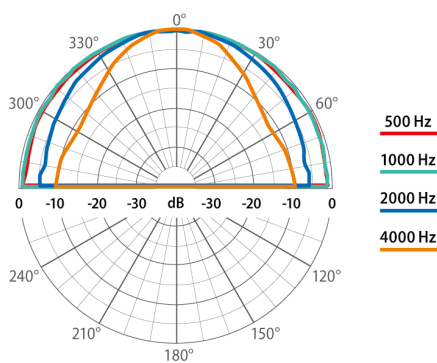


		<b>ABT-S206B</b>
<b>Electrical</b>		
Rated power, W		6
Tappings 100 V line according to EN 54-24, W		6 / 3 / 1,5 / 0,75
Tappings 70 V line, W		3 / 1,5 / 0,75 / 0,37
Transformer impedance @ 100 V, $\Omega$		1667 / 3333 / 6667 / 13333
Driver impedance, $\Omega$		8
Effective frequency range, Hz		120 – 20 000
Sensitivity @ 4 m, 1 W, dB		81
SPL @ 4 m, rated power, dB		88
SPL @ 1 m, 1 W, dB, test signal bandwidth 300 Hz – 6 kHz		93
SPL @ 1 m, rated power, dB, test signal bandwidth 300 Hz – 6 kHz		101
Dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]		180 / 180 / 95 / 70
<b>Environmental</b>		
Environmental type / IP rating according to EN 54-24		A / IP21C
IP rating		32C
Min./max. ambient temperature		-10°C / 55°C
<b>Mechanical</b>		
Dimensions, mm		Height 115, $\varnothing$ 199
Net weight, kg		1,13
Colour		White (RAL 9003) / Black (RAL 9011)
Material		Steel
Mounting		Spring clamp
Cut-out, mm		$\varnothing$ 175
<b>Option</b>		
For DC line monitoring		Capacitor (ABT-S206BC)
Colour optional		RAL palette
<b>Ease Model</b>		
		✓

Frequency band:



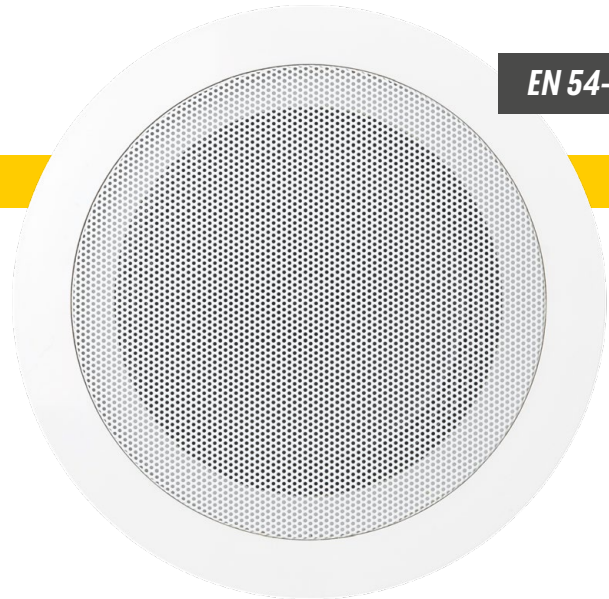
Circular chart of directional characteristic:



# ABT-S186

## CEILING-MOUNTED LOUDSPEAKERS

- ✓ *Full compliance with EN 54-24 Standard*
- ✓ *Certificate of Conformity: 1438-CPR-0648*
- ✓ *Compliance with BS5839-8 standard (thermal protection)*



Ceiling mounted fire alarm ABT-S186 loudspeaker is designed for operations at high acoustic levels. Actual wide band high efficiency ensures the best understanding of verbal messages. Its parameters have been carefully selected to comply with suspended ceiling applications.

Thanks to the most advanced technologies ABT-S186 loudspeaker combines excellent acoustic parameters and high aesthetics. It is distinguished by easy and quick installation.

Quality standards and audio characteristics have been confirmed through tests and trials in an anechoic chamber, resistance and integrity testing equipment, as well as chambers for resistance to weather and air humidity testing.

The ABT-S186 loudspeaker ensure a balanced sound which is extremely important in emission of highly understandable speech.

ABT-S186 is equipped with a standardized fire dome made of ABS and supplied with two cable penetrations with rubber glands.

The individual power rating is selected by means of connection with applicable transformer branch.

ABT-S186 loudspeaker equipped with fire dome, ceramic block and thermal protections entirely comply with EN 54-24 Standard. In order to ensure 100% consistency with the highest quality standards we test our loudspeakers following the most meticulous procedures that warrant high parameters of sound emission, safety, and reliability.

In spite of the fact our loudspeaker is designed for the highest reliability under fire conditions, their acoustic parameters and attractive low prices make them successful in any and all public address systems.

## CHARACTERISTICS

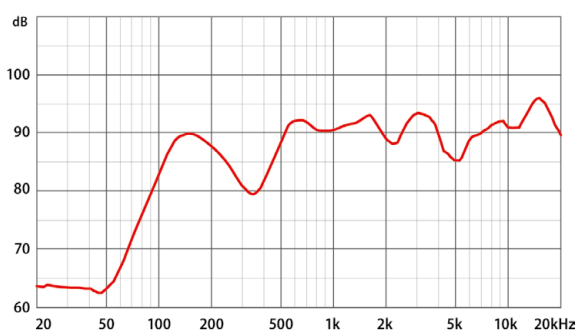
- » *The highest level of speech intelligibility*
- » *Elegant looks*
- » *6 W transformer allowing a precise selection of loudspeaker output power*
- » *100% protection of line from breaks and short-circuits*



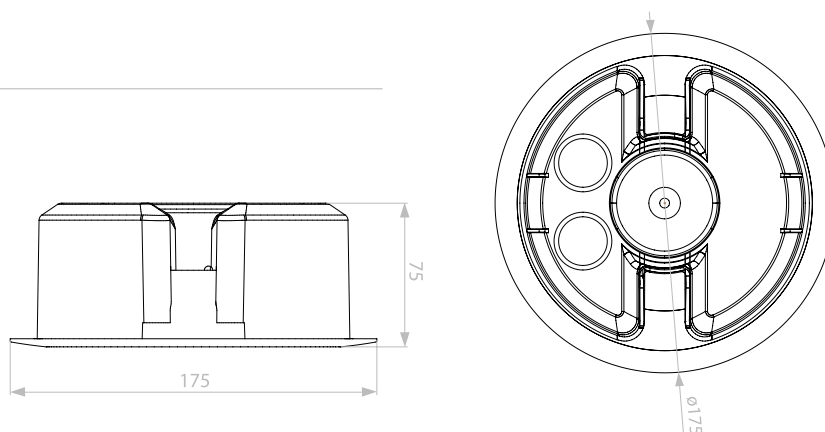
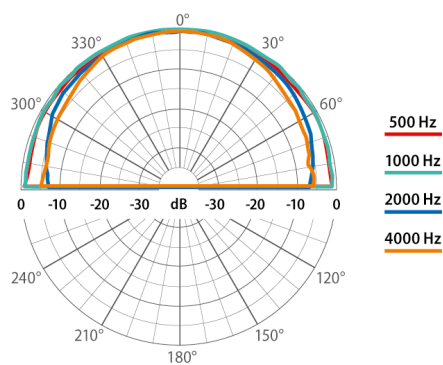


	ABT-S186
<b>Electrical</b>	
Rated power, W	6
Tappings 100 V line according to EN 54-24, W	6 / 3 / 1,5 / 0,75
Tappings 70 V line, W	3 / 1,5 / 0,75 / 0,37
Transformer impedance, $\Omega$	1667/3333/6667/13333
Driver impedance, $\Omega$	8
Effective frequency range, Hz	120 – 20 000
Sensitivity @ 4 m, 1 W, dB	79
SPL @ 4 m, rated power, dB	86
SPL @ 1 m, 1 W, dB, test signal bandwidth 300 Hz – 6 kHz	91
SPL @ 1 m, rated power, dB, test signal bandwidth 300 Hz – 6 kHz	99
Dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]	180 / 180 / 150 / 90
<b>Environmental</b>	
Environmental type / IP rating according to EN 54-24	A / IP21C
IP rating	32C
Min./max. ambient temperature	-10°C / 55°C
<b>Mechanical</b>	
Dimensions, mm	Height 75, $\phi$ 175
Net weight, kg	0,66
Colour	White (RAL 9003)
Material	ABS
Mounting	Spring clamp
Cut-out, mm	$\phi$ 150
<b>Option</b>	
For DC line monitoring	Capacitor (ABT-S186C)

Frequency band:



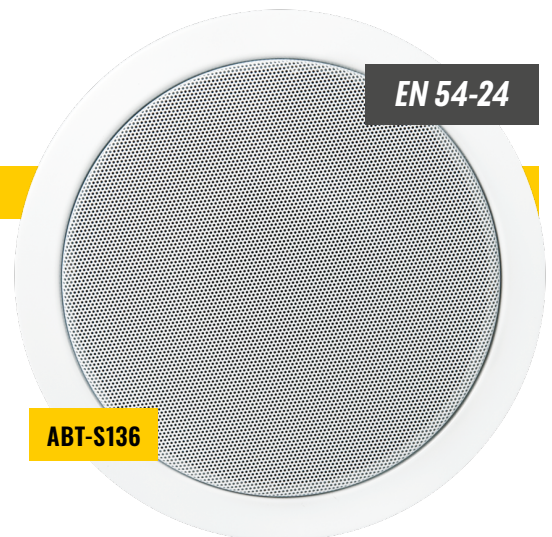
Circular chart of directional characteristic:



# ABT-S106 / ABT-S136

## CEILING-MOUNTED LOUDSPEAKERS

- ✓ *Compliance with EN 54-24*
- ✓ *Certificate of Conformity: 1438-CPR-0635*
- ✓ *Compliance with BS5839-8 standard (thermal protection)*



Ceiling-mounted fire alarm loudspeakers ABT-S106 and ABT-S136 are designed for applications which require the minimum size at the maximum sound quality. Their parameters have been carefully selected to match the operating requirements in the rooms exposed to after-sound and high-humidity.

Thanks to the most advanced technologies the ABT-S series loudspeakers combine excellent acoustic parameters and high aesthetics with resistance to mechanical damages and varying weather conditions. They are distinguished by easy and quick installation.

Quality standards and audio characteristics have been confirmed through tests and trials in an anechoic chamber, resistance and integrity testing equipment, as well as chambers for resistance to weather and air humidity testing.

The need to maintain the best acoustic parameters, even with easily installed fire-protecting screens, was the idea underlying the design process. The ABT-S series loudspeakers ensure a balanced sound which is extremely important in emission of highly understandable speech and reliable music reproduction.

The series of ceiling-mounted ABT-S loudspeakers is noticeable thanks to its elegant looks. The loudspeaker part which becomes visible after the installation is protected

by means of electroplating and covered by a common and aesthetic white paint coat (RAL 9003) – optionally available other colours (RAL palette).

The entire ABT-S series is equipped with a standardized fire dome made of soft steel and supplied with two cable penetrations with rubber glands. Special jig for sling assembling facilitates quick installation. The delivery comprises the 1-metre long sling. Two ceramic blocks and fireproof wiring coupled with temperature limit fuse are located under the screen. This solution ensures 100% protection of the sound-transmitting line from any break or short-circuits which may be produced as a result of loudspeaker burn. The individual power rating is selected by means of connection with applicable transformer branch.

ABT-S series loudspeakers equipped with fire dome and thermal protections entirely comply with EN 54-24 Standards. In order to ensure 100% consistency with the highest quality standards we test our loudspeakers following the most meticulous procedures that warrant high parameters of sound emission, safety, and reliability.

In spite of the fact our loudspeakers are designed for the highest reliability under fire conditions, their acoustic parameters and attractive low prices make them successful in any and all public address systems.

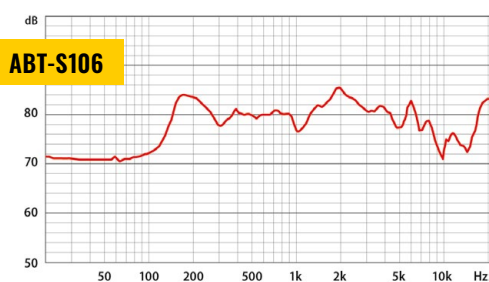
## CHARACTERISTICS

- » *Minimum dimensions*
- » *A and C working environment, ideal for bathrooms*
- » *Exceptionally reliable reproduction of full band music*
- » *The highest level of speech intelligibility*
- » *Elegant looks*
- » *6 W transformer allowing a precise selection of loudspeaker output power*
- » *100% protection of line from breaks and short-circuits*

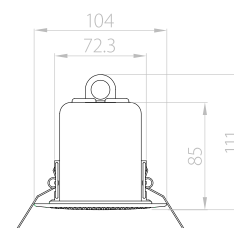
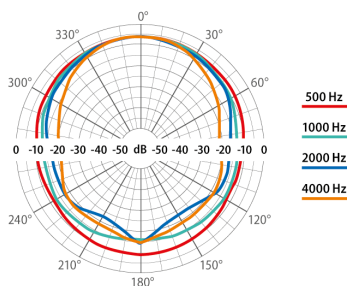


	ABT-S106	ABT-S136
<b>Electrical</b>		
Rated power, W	6	6
Tappings 100 V line according to EN 54-24, W	6 / 3 / 1,5 / 0,75	6 / 3 / 1,5 / 0,75
Tappings 70V line, W	3 / 1,5 / 0,75 / 0,38	3 / 1,5 / 0,75 / 0,38
Transformer impedance @ 100 V, Ω	1667 / 3333 / 6667 / 13333	1667 / 3333 / 6667 / 13333
Driver impedance, Ω	8	8
Effective frequency range, Hz	100–20000	60–20000
Sensitivity @ 4 m, 1 W, dB	65	68
SPL @ 4 m, rated power, dB	76	78
SPL @ 1 m, 1 W, dB, test signal bandwidth 300 Hz–6 kHz	80	82
SPL @ 1 m, rated power, dB, test signal bandwidth 300 Hz–6 kHz	88	90
Dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]	180 / 180 / 170 / 150	180 / 180 / 170 / 90
<b>Environmental</b>		
Environmental type / IP rating according to EN 54-24	A, C / IP21C	A, C / IP21C
IP rating	32	32
Min./max. ambient temperature	-10°C / 55°C	-10°C / 55°C
<b>Mechanical</b>		
Dimensions, mm	Height 111, ø104	Height 113, ø134
Net weight, kg	0,72	0,82
Colour	White (RAL 9003)	
Material	Steel	
Mounting	Spring clamp	
Cut-out, mm	ø85	ø106
<b>Option</b>		
For DC line monitoring	Capacitor	
Colour optional	RAL palette	
<b>Ease Model</b>	✓	

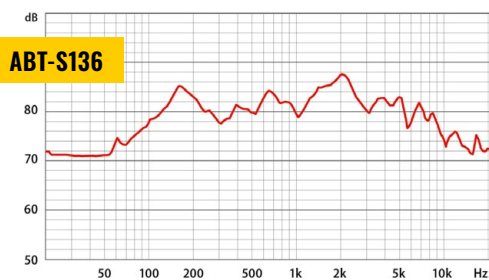
Frequency band:



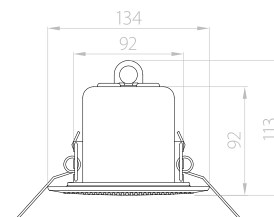
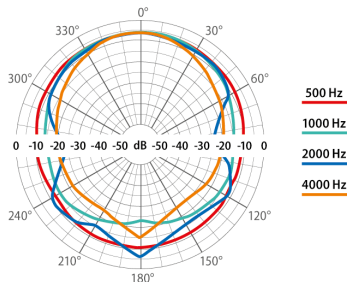
Circular chart of directional characteristic:



Frequency band:



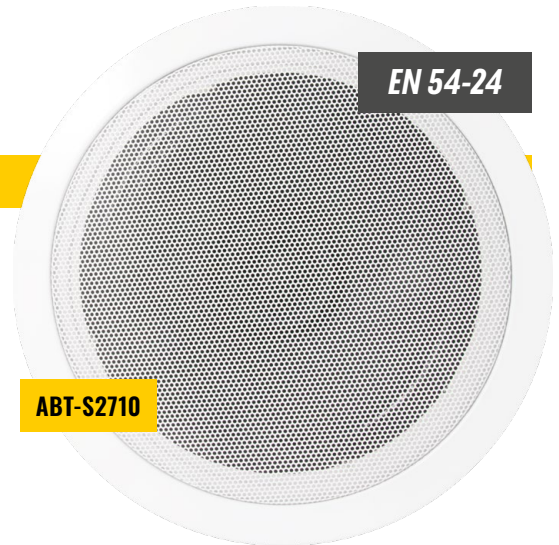
Circular chart of directional characteristic:



# ABT-S2010 / ABT-S2710

## CEILING-MOUNTED LOUDSPEAKERS

- ✓ *Compliance with EN 54-24*
- ✓ *Certificate of Conformity: 1488-CPR-0170/W*
- ✓ *Compliance with BS5839-8 standard (thermal protection)*



Ceiling mounted fire alarm ABT-S2010 and ABT-S2710 loudspeakers are designed for operations at high acoustic levels and the highest reduction in power supply. Actual wide band high efficiency ensures the best understanding of verbal messages. Their parameters have been carefully selected to comply with false ceiling applications, both at standard and considerably elevated ceiling-to-floor distance.

Thanks to the most advanced technologies the ABT-S series loudspeakers combine excellent acoustic parameters and high aesthetics with resistance to mechanical damages and varying weather conditions. They are distinguished by easy and quick installation.

Quality standards and audio characteristics have been confirmed through tests and trials in an anechoic chamber, resistance and integrity testing equipment, as well as chambers for resistance to weather and air humidity testing.

The need to maintain the best acoustic parameters, even with easily installed fire-protecting screens, was the idea underlying the design process. The ABT-S series loudspeakers ensure a balanced sound which is extremely important in emission of highly understandable speech and reliable music reproduction.

The series of ceiling-mounted ABT-S loudspeakers is noticeable thanks to its elegant looks. The loudspeaker part which becomes visible after the installation is protected

by means of electroplating and covered by a common and aesthetic white paint coat (RAL 9003) – optionally available other colours (RAL palette).

The entire ABT-S series is equipped with a standardized fire dome made of soft steel and supplied with two cable penetrations with rubber glands. Special jig for sling assembling facilitates quick installation. The delivery comprises the 1-metre long sling. Two ceramic blocks and fireproof wiring coupled with temperature limit fuse are located under the screen. This solution ensures 100% protection of the sound-transmitting line from any break or short-circuits which may be produced as a result of loudspeaker burn. The individual power rating is selected by means of connection with applicable transformer branch.

ABT-S series loudspeakers equipped with fire dome and thermal protections entirely comply with EN 54-24 Standards. In order to ensure 100% consistency with the highest quality standards we test our loudspeakers following the most meticulous procedures that warrant high parameters of sound emission, safety, and reliability.

In spite of the fact our loudspeakers are designed for the highest reliability under fire conditions, their acoustic parameters and attractive low prices make them successful in any and all public address systems.

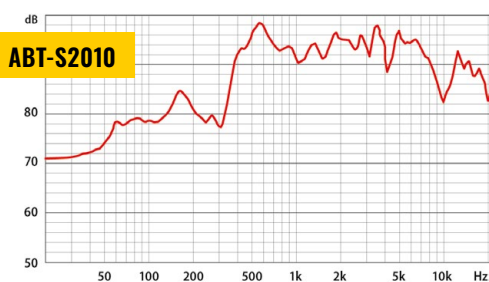
## CHARACTERISTICS

- » *High efficiency*
- » *High acoustic pressure level*
- » *Exceptionally reliable full band music reproduction*
- » *The highest level of speech intelligibility*
- » *Elegant looks*
- » *10 W transformer allowing precise selection of loudspeaker output power*
- » *100% protection of line from breaks and short-circuits*

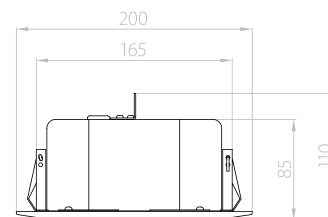
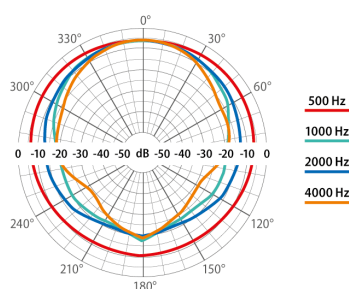


	ABT-S2010	ABT-S2710
<b>Electrical</b>		
Rated power, W	10	10
Tappings 100 V line according to EN 54-24, W	10 / 5 / 2,5 / 1,25	10 / 5 / 2,5 / 1,25
Tappings 70V line, W	5 / 2,5 / 1,25 / 0,625	5 / 2,5 / 1,25 / 0,625
Transformer impedance @ 100 V, Ω	1000 / 2000 / 4000 / 8000	1000 / 2000 / 4000 / 8000
Driver impedance, Ω	8	8
Effective frequency range, Hz	120–20000	100–20000
Sensitivity @ 4 m, 1 W, dB	77	78
SPL @ 4 m, rated power, dB	90	92
SPL @ 1 m, 1 W, dB, test signal bandwidth 300 Hz–6 kHz	94	95
SPL @ 1 m, rated power, dB, test signal bandwidth 300 Hz–6 kHz	104	105
Dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]	180 / 170 / 115 / 55	180 / 170 / 90 / 60
<b>Environmental</b>		
Environmental type / IP rating according to EN 54-24	A / IP21C	A / IP21C
IP rating	32	32
Min./max. ambient temperature	-10°C / 55°C	-10°C / 55°C
<b>Mechanical</b>		
Dimensions, mm	Height 110, ø200	Height 120, ø267
Net weight, kg	1,4	1,75
Colour	White (RAL 9003)	
Material	Steel	
Mounting	Spring clamp	
Cut-out, mm	ø 172	ø 222
<b>Option</b>		
For DC line monitoring	Capacitor	
Colour optional	RAL Palette	
<b>Ease Model</b>	✓	

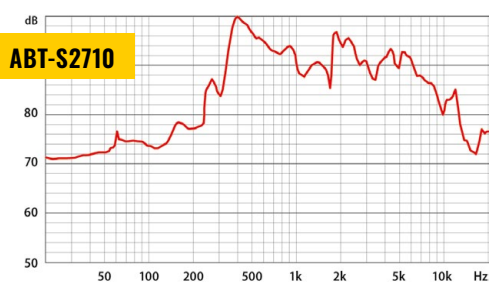
Frequency band:



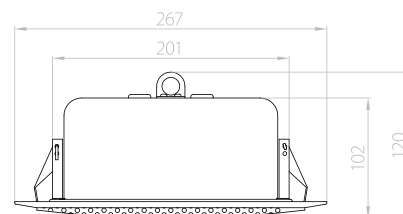
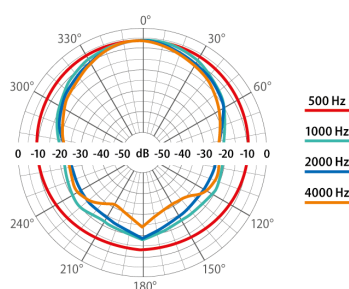
Circular chart of directional characteristic:



Frequency band:



Circular chart of directional characteristic:



# ABT-P10/ABT-P10P

EN 54-24

## SOUND PROJECTORS

- ✓ *Compliance with EN 54-24*
- ✓ *Certificate of Conformity: 1438-CPR-0701*
- ✓ *Compliance with BS5839-8 standard (thermal protection)*



Fire alarm ABT-P10, ABT-P10P loudspeakers have been designed and manufactured for the most demanding customers as well as to meet the requirements of the most complex and sophisticated sound transmitting applications. Thanks to the contribution of advanced technologies they combine excellent acoustic parameters and high aesthetics with resistance to mechanical damages and varying weather conditions as well as low prices. Their additional quality is an exceptionally quick and simple installation.

Quality standards and audio characteristics have been confirmed through tests and trials in an anechoic chamber, resistance and integrity testing equipment, as well as chambers for resistance to weather and air humidity testing. The need to maintain the best acoustic parameters was the idea underlying the design process.

ABT-P loudspeaker models emitting the sound which features directional characteristic and high efficiency. 5-inch 2-cone wide band loudspeakers used in these series are excellent alternative solution for horn-type units due to wide frequency band. They prove excellent in both musical and verbal applications. ABT-P10 and ABT-P10P loudspeakers are enclosed in round casings made of resistant and durable ABS; they feature a high class of protection from humidity. Thanks to directional characteristic of sound propagation our loudspeakers are mostly applied on circulation

routes and in wide area sound emission. Due to resistance to weather conditions the loudspeakers prove excellent in industrial halls, warehouses, as well as partly open spaces exposed to outdoor weather conditions.

Apart from high mechanical and functional resistance ABT-P loudspeakers entirely comply with global requirements for systems, including also the British Standard No. BS5839 Part 8 and EN 54-24.

All ABT-P loudspeakers have built-in a ceramic connection block and a thermal fuse. Two sound-transmission cable penetrations in the casing are insulated by means of two cable glands. Inside the fire zone the loudspeaker is isolated from the entire line, which ensures line continuity and uninterrupted broadcasting of emergency messages. The individual power rating is selected by means of connection with applicable transformer branch.

ABT-P loudspeakers are designed for continuous operations at rated parameters for at least 100 hours in compliance with the IEC-268-5 Standard.

ABT-P10P loudspeakers are designed for pendant mounting. They are equipped with an additional junction box enabling simple and quick speaker installation. They are used wherever the distance from ceiling mounted speaker is too large.

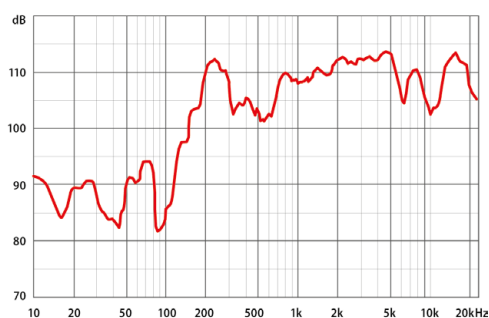
## CHARACTERISTICS

- » *Designed to achieve directional characteristic of sound emission*
- » *10 W transformer with multiple branches ensuring accurate selection of output power*
- » *Enclosed in an advance and functional cylindrical casing made of resistant and durable ABS*
- » *Ideal for either ceiling or wall installation*
- » *Durable casing with ceramic block and thermal fuse*
- » *High sound quality in music and speech emission*

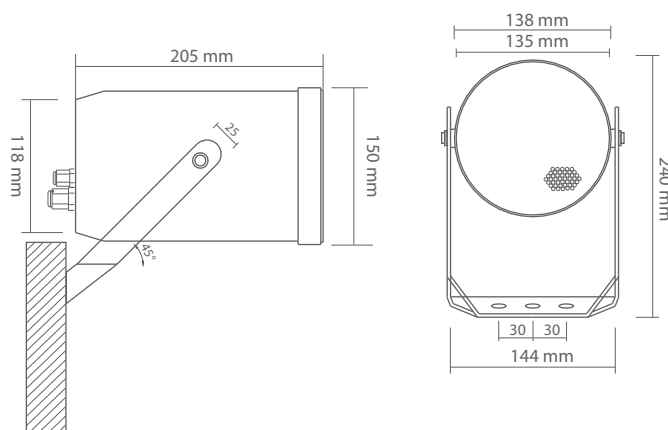
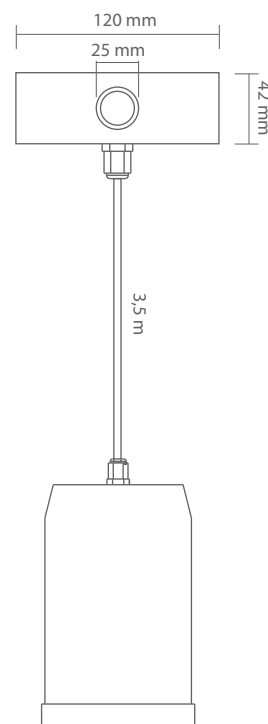
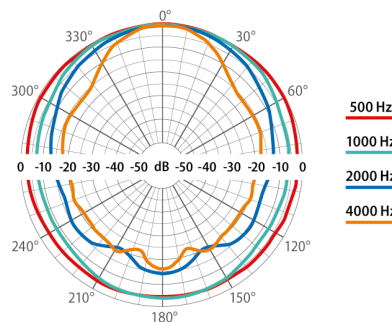


	ABT-P10	ABT-P10P
<b>Electrical</b>		
Rated power, W	10	
Tappings 100 V line according to EN 54-24, W	10 / 5 / 2,5 / 1,25	
Tappings 70V line, W	5 / 2,5 / 1,25 / 0,625	
Transformer impedance @ 100 V, Ω	1000 / 2000 / 4000 / 8000	
Driver impedance, Ω	8	
Effective frequency range, Hz	130 – 20000	
Sensitivity @ 4 m, 1 W, dB	80	
SPL @ 4 m, rated power, dB	88	
SPL @ 1 m, 1 W, dB, test signal bandwidth 300 Hz – 6 kHz	92	
SPL @ 1 m, rated power, dB, test signal bandwidth 300 Hz – 6 kHz	100	
Dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]	360 / 210 / 120 / 65	
<b>Environmental</b>		
Environmental type / IP rating according to EN 54-24	B / IP33C	
IP rating*	66	
Min./max. ambient temperature	-25°C / 70°C	
<b>Mechanical</b>		
Dimensions, mm	Length 205, ø 135	
Net weight, kg	1,6	2
Colour	White (RAL 9003)	
Material	ABS	
Mounting	Screw, U type bracket	Screw, pendant
<b>Option</b>		
For DC line monitoring	Capacitor (ABT-P10C / ABT-P10PC)	
<b>Ease Model</b>	✓	

Frequency band:



Circular chart of directional characteristic:



# ABT-P20/ABT-P20P

EN 54-24

## SOUND PROJECTORS

- ✓ *Compliance with EN 54-24*
- ✓ *Certificate of Conformity: 1438-CPR-0702*
- ✓ *Compliance with BS5839-8 standard (thermal protection)*



Fire alarm ABT-P20, ABT-P20P loudspeakers have been designed and manufactured for the most demanding customers as well as to meet the requirements of the most complex and sophisticated sound transmitting applications. Thanks to the contribution of advanced technologies they combine excellent acoustic parameters and high aesthetics with resistance to mechanical damages and varying weather conditions as well as low prices. Their additional quality is an exceptionally quick and simple installation.

Quality standards and audio characteristics have been confirmed through tests and trials in an anechoic chamber, resistance and integrity testing equipment, as well as chambers for resistance to weather and air humidity testing. The need to maintain the best acoustic parameters was the idea underlying the design process.

ABT-P loudspeaker models emitting the sound which features directional characteristic and high efficiency. 5-inch 2-cone wide band loudspeakers used in these series are excellent alternative solution for horn-type units due to wide frequency band. They prove excellent in both musical and verbal applications. ABT-P20 and ABT-P20P loudspeakers are enclosed in round casings made of extruded aluminium; they feature a high class of protection from humidity. Thanks to directional characteristic of sound propagation our loudspeakers are mostly applied on circulation routes and in wide area sound emission. Due to resistance to weather conditions the loudspeakers prove excellent in industrial halls, warehouses,

as well as partly open spaces exposed to outdoor weather conditions.

Apart from high mechanical and functional resistance ABT-P loudspeakers entirely comply with global requirements for systems, including also the British Standard No. BS5839 Part 8 and EN 54-24.

Technical solutions applied in the design ensure continuous operations of sound-transmitting line connected with the loudspeaker even in the case the latter is damaged or burnt as a result of fire. The said protection is composed of ceramic blocks installed inside the loudspeaker, internal fireproof wiring, and temperature limit fuse. Two sound-transmission cable penetrations in the casing are insulated by means of two cable glands. Inside the fire zone the loudspeaker is isolated from the entire line, which ensures line continuity and uninterrupted broadcasting of emergency messages. The individual power rating is selected by means of connection with applicable transformer branch.

ABT-P loudspeakers are designed for continuous operations at rated parameters for at least 100 hours in compliance with the IEC-268-5 Standard.

ABT-P20P loudspeakers are designed for pendant mounting. They are equipped with an additional junction box enabling simple and quick speaker installation. They are used wherever the distance from ceiling mounted speaker is too large.

## CHARACTERISTICS

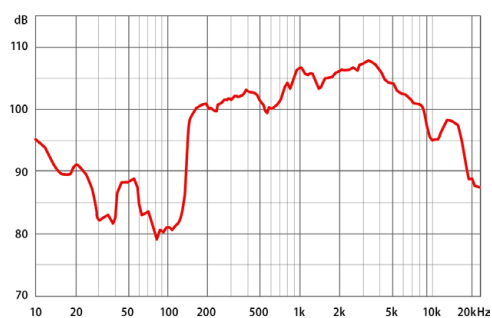
- » *Designed to achieve directional characteristic of sound emission*
- » *20 W transformer with multiple branches ensuring accurate selection of output power*
- » *Enclosed in an advance and functional cylindrical casing made of extruded aluminium*
- » *Ideal for either ceiling or wall installation*
- » *Fireproof casing with ceramic block and thermal fuse*
- » *High sound quality in music and speech emission*



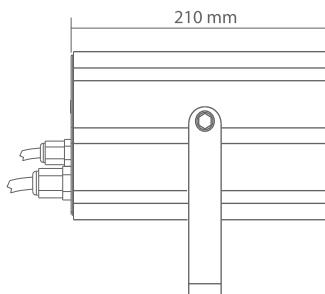
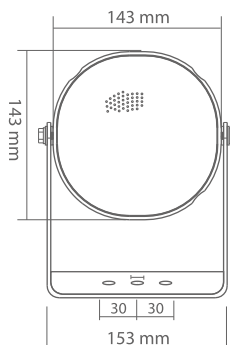
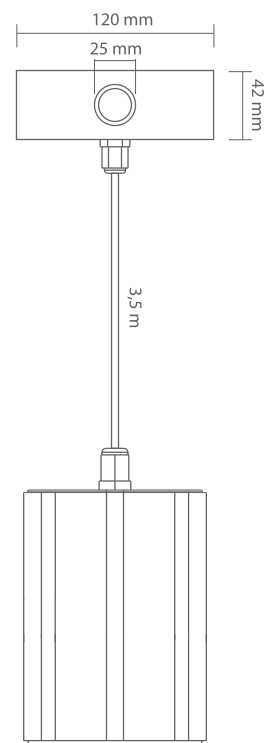
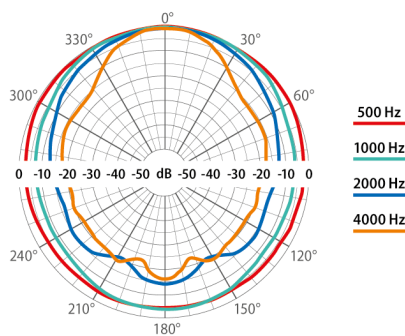


	ABT-P20	ABT-P20P
<b>Electrical</b>		
Rated power, W	20	
Tappings 100 V line according to EN 54-24, W	20 / 10 / 5 / 2,5	
Tappings 70V line, W	10 / 5 / 2,5 / 1,25	
Transformer impedance @ 100 V, Ω	500 / 1000 / 2000 / 4000	
Driver impedance, Ω	8	
Effective frequency range, Hz	120–20000	
Sensitivity @ 4 m, 1 W, dB	79	
SPL @ 4 m, rated power, dB	90	
SPL @ 1 m, 1 W, dB, test signal bandwidth 300 Hz–6 kHz	91	
SPL @ 1 m, rated power, dB, test signal bandwidth 300 Hz–6 kHz	102	
Dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]	360 / 230 / 110 / 65	
<b>Environmental</b>		
Environmental type / IP rating according to EN 54-24	B / IP33C	
IP rating*	66	
Min./max. ambient temperature	-25°C / 70°C	
<b>Mechanical</b>		
Dimensions, mm	Length 210, ø 143	
Net weight, kg	2,4	2,8
Colour	White (RAL 9003)	
Material	Aluminium	
Mounting	Screw, U type bracket	Screw, pendant
<b>Option</b>		
For DC line monitoring	Capacitor (ABT-P20C / ABT-P20PC)	
Colour optional	RAL palette	
<b>Model Ease</b>		
	✓	

Frequency band:



Circular chart of directional characteristic:



# ABT-T1410/T2015

EN 54-24

## HORN-TYPE LOUDSPEAKERS

- ✓ *Compliance with EN 54-24*
- ✓ *Certificate of Conformity issued by CNBOP: 1438-CPR-0801*
- ✓ *Compliance with BS5839-8 standard (thermal protection)*



Horn-type fire alarm ABT-T1410/T2015 loudspeakers are designed for either simple or most complex and sophisticated sound-transmitting applications. They combine excellent acoustic parameters and high aesthetics with resistance to mechanical damages and varying weather conditions as well as simple assembling and low price. Quality standards and audio characteristics have been confirmed through tests and trials in an anechoic chamber, resistance and integrity testing equipment, as well as chambers for resistance to weather and air humidity testing.

ABT-T1410/T2015 comprise series comprises highly efficient loudspeakers which produce sounds featuring directional characteristics and operate in any atmospheric conditions (A, B, C environmental type). Thanks to their balanced frequency band they guarantee high understanding of verbal communication. Their casings are made of ABS, a synthetic material featuring high resistance to mechanical damages. Loudspeakers are perfectly protected from dust and humidity (IP66). The assembling jig ensures adjusting the inclination for the optimum coverage of the area of communications.

ABT-T1410/T2015 loudspeakers are applied on circulation routes and inside the rooms with high reverberation time as well as in widespread outdoor area broadcasting. They are perfect for sport sites, at swimming pools, in expo and industrial halls, warehouses, open and underground car parks, and in open areas such as stadiums, parks, etc.

ABT-T loudspeakers entirely comply with global requirements. They have been certified for product compliance with EN 54-24 and acceptance by CNBOP. Ceramic blocks and thermal fuses protect the broadcasting line from short-circuits or breaks.

The individual rated power is selected by connection to the appropriate terminal of the ceramic terminal block. All the ABT-T loudspeakers are designed so as to ensure continuous operations at rated parameters for at least 100 hours (consistent with IEC-268-5 Standard). In spite of the fact our loudspeakers are designed for the highest reliability under fire conditions, they can be also used in any and all public address systems.

## CHARACTERISTICS

- » *Directional characteristic of sound emission and the highest verbal communication understanding*
- » *All the working environments – A, B and C*
- » *Wall and ceiling installation*
- » *Protection from dust and humidity: IP66 rating*
- » *100% line protection from short-circuit and break in fire conditions*

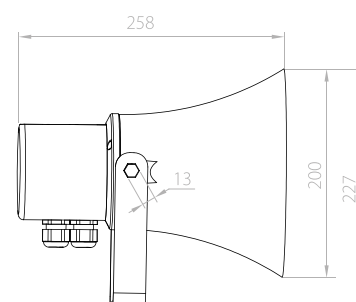
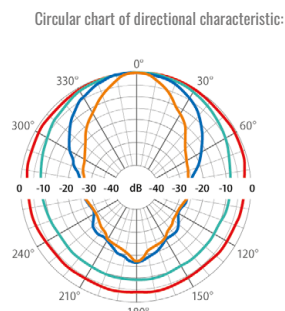
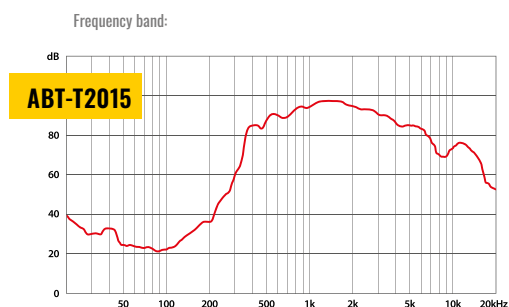
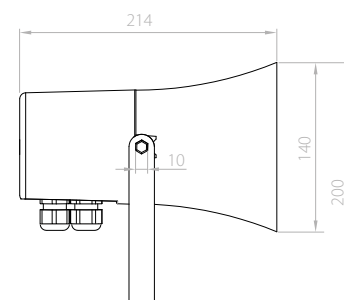
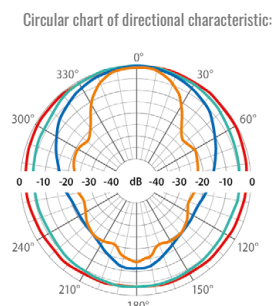
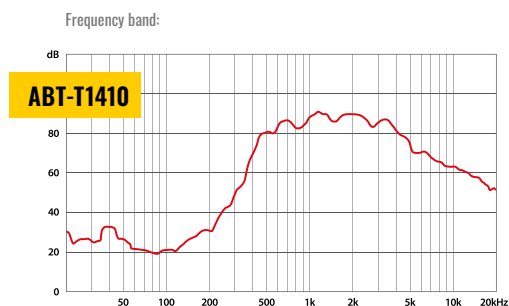


ABT-T2015



ABT-T1410

	ABT-T1410	ABT-T2015
<b>Electrical</b>		
Rated power, W	10	15
Tappings 100 V line according to EN 54-24, W	10 / 5 / 2,5 / 1,25	15 / 7,5 / 3,75 / 1,87
Tappings 70 V line, W	5 / 2,5 / 1,25 / 0,62	7,5 / 3,75 / 1,87 / 0,94
Transformer impedance @ 100 V, Ω	1000 / 2000 / 4000 / 8000	667 / 1330 / 2770 / 5330
Driver impedance, Ω	8	8
Effective frequency range, Hz	300-6300	300-8000
Sensitivity @ 4 m, 1 W, dB	81	87
SPL @ 4 m, rated power, dB	89	97
SPL @ 1 m, 1 W, dB, test signal bandwidth 300 Hz–6 kHz	93	99
SPL @ 1 m, rated power, dB, test signal bandwidth 300 Hz–6 kHz	101	109
Dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]	360 / 355 / 97 / 54	360 / 132 / 68 / 33
<b>Environmental</b>		
Environmental type / IP rating according to EN 54-24	B/IP33C	
IP rating	66	
Min./max. ambient temperature	-25 °C / 70 °C	
<b>Mechanical</b>		
Dimensions, mm	Length 214, ø 140	Length 258, ø 200
Net weight, kg	1,2	1,5
Colour	Light grey (RAL 7035)	
Material	ABS	
Mounting	Screw, U type bracket	
<b>Option</b>		
For DC line monitoring	Capacitor	
<b>EaseModel</b>		
	✓	



# ABT-T1510 / T2215 / T2430 / T2435

EN 54-24

## HORN-TYPE LOUDSPEAKERS

- ✓ *Compliance with EN 54-24*
- ✓ *Certificate of Conformity issued by CNBOP: 1438-CPR-0640*
- ✓ *Compliance with BS5839-8 standard (thermal protection)*



Horn-type fire alarm ABT-T loudspeakers are designed for either simple or most complex and sophisticated sound-transmitting applications. They combine excellent acoustic parameters and high aesthetics with resistance to mechanical damages and varying weather conditions as well as simple assembling and low price. Quality standards and audio characteristics have been confirmed through tests and trials in an anechoic chamber, resistance and integrity testing equipment, as well as chambers for resistance to weather and air humidity testing.

The ABT-T series comprises highly efficient loudspeakers which produce sounds featuring directional characteristics and operate in any atmospheric conditions (A, B, C environmental type). Thanks to their balanced frequency band they guarantee high understanding of verbal communication. Their casings are made of ABS UL94V0, a synthetic material featuring high resistance to mechanical damages and self-extinguishing properties. Loudspeakers are perfectly protected from dust and humidity (IP66). The assembling jig ensures adjusting the inclination for the optimum coverage of the area of communications.

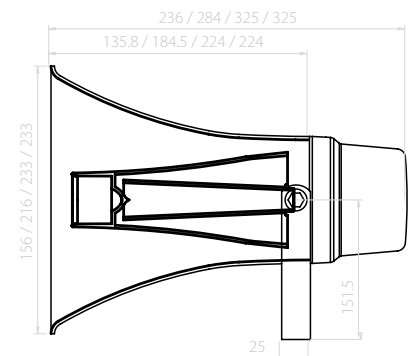
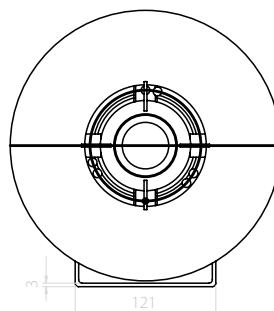
ABT-T loudspeakers are applied on circulation routes and inside the rooms with high reverberation time as well as in widespread outdoor area broadcasting. They are perfect for sport sites, at swimming pools, in expo and industrial halls, warehouses, open and underground car parks, and in open areas such as stadiums, parks, etc. ABT-T loudspeakers entirely comply with global requirements concerning evacuation systems,

including the standards such as BS5839 Part 8 and EN 54-24. They have been certified for product compliance and acceptance by CNBOP. Ceramic blocks, internal flame-resistant wiring, and temperature limit fuses protect the broadcasting line from short-circuits or breaks and ensure continuous operations even in case of fire-produced damages or burns. The loudspeaker located in the zone of fire is isolated from the sound-transmitting line. A special design eliminates the risk of fall of any of its burnt components, which ensures safe fire escape process.

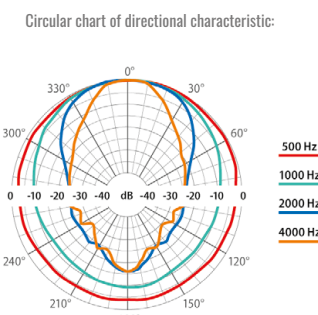
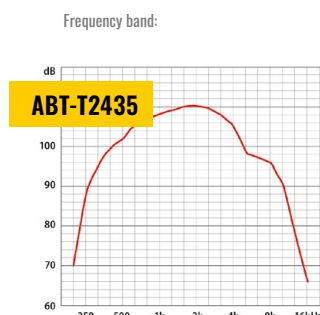
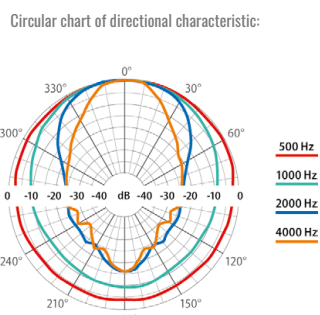
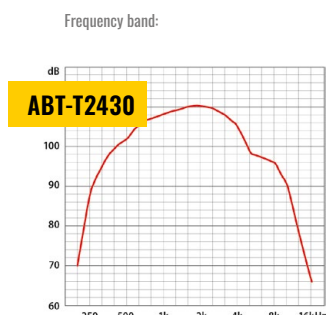
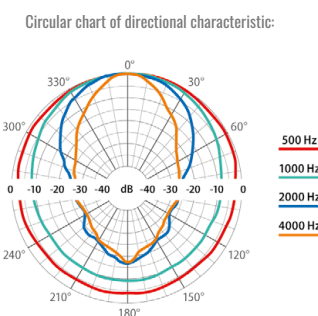
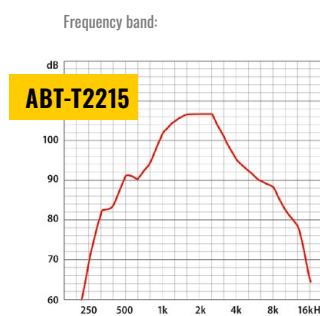
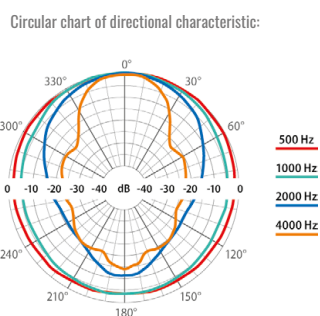
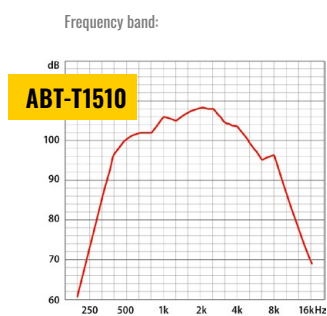
Our ABT-T loudspeaker offer comprises four power rating models, i.e. 10 W, 15 W, 30 W and 35 W. The individual rated power is selected by means of connection with applicable transformer branch. All the ABT-T loudspeakers are designed so as to ensure continuous operations at rated parameters for at least 100 hours (consistent with IEC-268-5 Standard). In spite of the fact our loudspeakers are designed for the highest reliability under fire conditions, they can be also used in any and all public address systems.

## CHARACTERISTICS

- » *Directional characteristic of sound emission and the highest verbal communication understanding*
- » *All the working environments – A, B and C*
- » *Wall and ceiling installation*
- » *Protection from dust and humidity: IP66 rating*
- » *Casing made of self-extinguishing ABS UL94V0 plastic, with steel assembling jig*
- » *100% line protection from short-circuit and break in fire conditions*



	ABT-T1510	ABT-T2215	ABT-T2430	ABT-T2435
<b>Electrical</b>				
Rated power, W	10	15	30	35
Tappings 100 V line according to EN 54-24, W	10 / 5 / 2,5 / 1,25	15 / 7,5 / 3,75 / 1,87	30 / 15 / 7,5 / 3,75	35 / 17,5 / 8,75 / 4,38
Tappings 70V line, W	5 / 2,5 / 1,25 / 0,62	7,5 / 3,75 / 1,87 / 0,94	15 / 7,5 / 3,75 / 1,87	17,5 / 8,75 / 4,38 / 2,19
Transformer impedance @ 100 V, Ω	1000 / 2000 / 4000 / 8000	667 / 1330 / 2770 / 5330	333 / 666 / 1330 / 2660	285 / 571 / 1142 / 2284
Driver impedance, Ω	8	8	8	8
Effective frequency range, Hz	340–9000	460–9000	400–7500	400–7500
Sensitivity @ 4 m, 1 W, dB	86	87	88	88
SPL @ 4 m, rated power, dB	96	100	103	103
SPL @ 1 m, 1 W, dB, test signal bandwidth 300Hz–6 kHz	103	104	105	105
SPL @ 1 m, rated power, dB, test signal bandwidth 300Hz–6 kHz	113	116	120	120
Dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]	240 / 200 / 88 / 45	180 / 121 / 68 / 36	180 / 120 / 75 / 41	180 / 120 / 75 / 41
<b>Environmental</b>				
Environmental type / IP rating according to EN 54-24	B/IP33C			
IP rating	66			
Min./max. ambient temperature	-25 °C / 70 °C			
<b>Mechanical</b>				
Dimensions, mm	Length 236, ø 156	Length 284, ø 216	Length 325, ø 233	Length 325, ø 233
Net weight, kg	1,75	1,95	2,20	2,20
Colour	Light grey (RAL 7035)			
Material	ABS UL94V0			
Mounting	Screw, U type bracket			
<b>Option</b>				
For DC line monitoring	Capacitor			
<b>Ease Model</b>				
	✓			



# ABT-HP240EN/ABT-HP120EN

EN 54-24

## HIGH POWER LOUDSPEAKER

- ✓ Compliance with EN 54-24
- ✓ Certificate of Conformity issued by CNBOP: 1438-CPR-0482
- ✓ 240 W and 120 W transformers 100 V
- ✓ Highest level of speech intelligibility
- ✓ Waterproof housing IP65
- ✓ Wide frequency range suitable for music
- ✓ Compliance with BS5839-8 standard

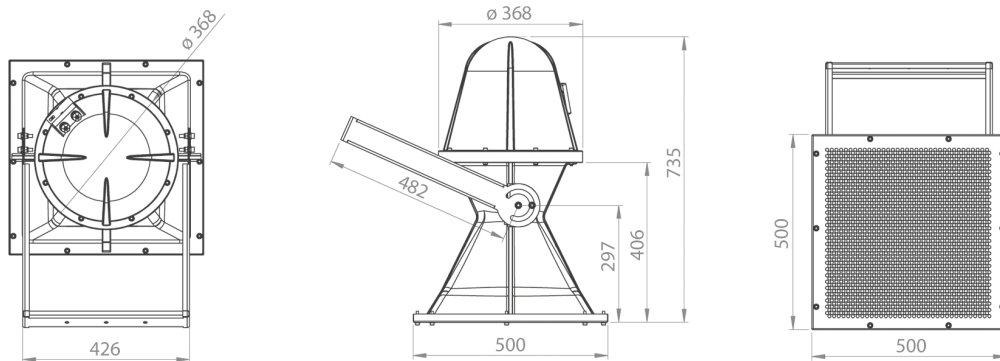


ABT-HP240EN and ABT-HP120HP are powerful loudspeakers designed for sport venues. They are two-way loudspeaker equipped with electroacoustic transducers 12" + 1,75" and 8" + 1,3". These speakers sets have a wide effective frequency band, which is perfect for the transmission

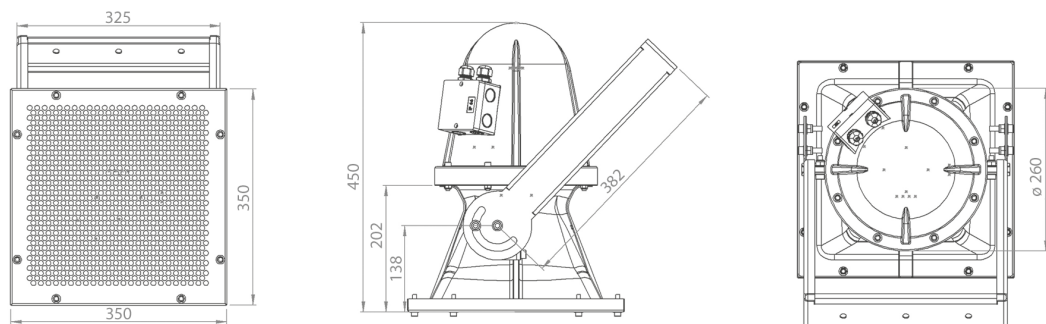
of verbal and musical communication. Universal mounting method allows to mount the speakers in a simple manner. Waterproof housing makes that it can be successfully used outdoors (stadiums, halls, etc.). ABT-HP240EN and ABT-HP120EN are equipped with the necessary

instrumentation required to connect them to the voice evacuation system. Between the ceramic block and speaker transformer there is installed thermal fuse isolating transformer from a loudspeaker line.

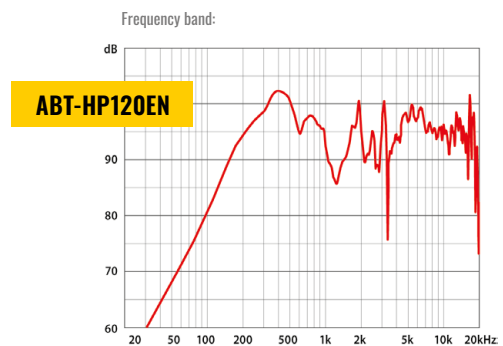
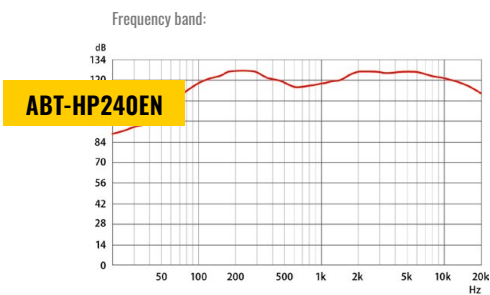
ABT-HP240EN



ABT-HP120EN

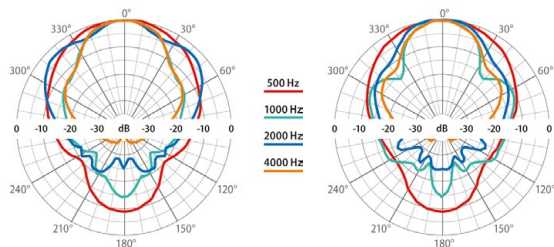


	ABT-HP240EN66	ABT-HP240EN94	ABT-HP120EN66	ABT-HP120EN94
<b>Electrical</b>				
Number of transducers	2	2	2	2
Rated power, W	240	240	120	120
Tappings 100 V line according to EN 54-24, W	240 / 120 / 60	240 / 120 / 60	120 / 60 / 30	120 / 60 / 30
Tappings 70V line, W	120 / 60 / 30	120 / 60 / 30	60 / 30 / 15	60 / 30 / 15
Transformer impedance @ 100 V, Ω	42 / 84 / 167	42 / 84 / 167	84 / 167 / 333	84 / 167 / 333
Driver impedance, Ω	8	8	8	8
Effective frequency range, Hz	65 – 20 000	65 – 20 000	85 – 20 000	85 – 20 000
Sensitivity @ 4 m, 1 W, dB	84	84	81	81
SPL @ 4 m, rated power, dB	108	108	105	105
SPL @ 1 m, 1 W, dB	96	96	93	93
SPL @ 1 m, rated power, dB	120	120	117	117
Horizontal dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]	110 / 60 / 65 / 55	110 / 60 / 85 / 55	160 / 90 / 45 / 35	165 / 120 / 80 / 60
Vertical dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]	105 / 60 / 65 / 55	105 / 65 / 80 / 65	160 / 90 / 45 / 35	160 / 100 / 65 / 45
<b>Environmental</b>				
Environmental type / IP rating according to EN 54-24				B / IP33C
IP rating				IP65
Min./max. ambient temperature				-25°C / 70°C
<b>Mechanical</b>				
Dimensions, mm	500 × 500 × 735	500 × 500 × 735	350 × 350 × 450	350 × 350 × 450
Net weight, kg	29	29	16	16
Colour	Black (RAL 9005)			
Material	Glass fiber			
Mounting	U type bracket			
<b>Ease Model</b>	✓			

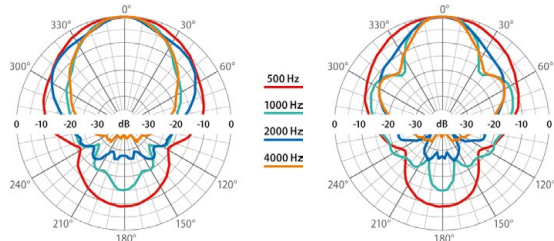


horizontal << circular chart of directional characteristic >> vertical

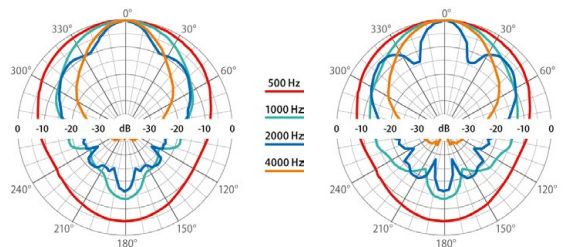
ABT-HP240EN66



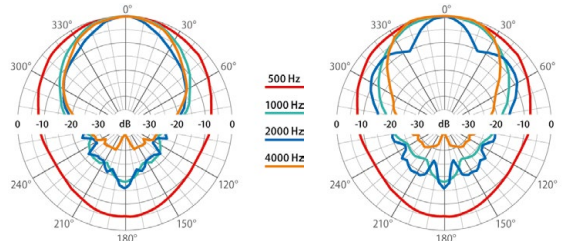
ABT-HP240EN94



ABT-HP120EN66



ABT-HP120EN94



# ABT-TNL100

EN 54-24

## HIGHLY DIRECTIONAL TUNNEL LOUDSPEAKER

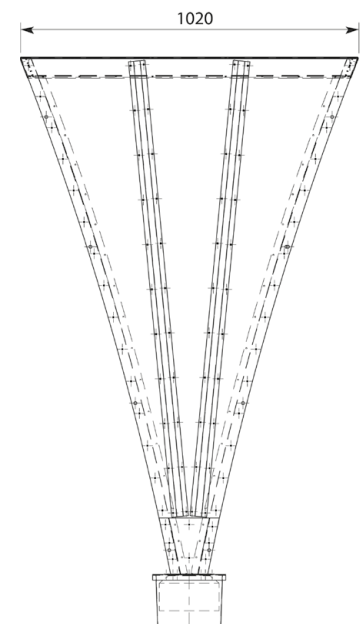
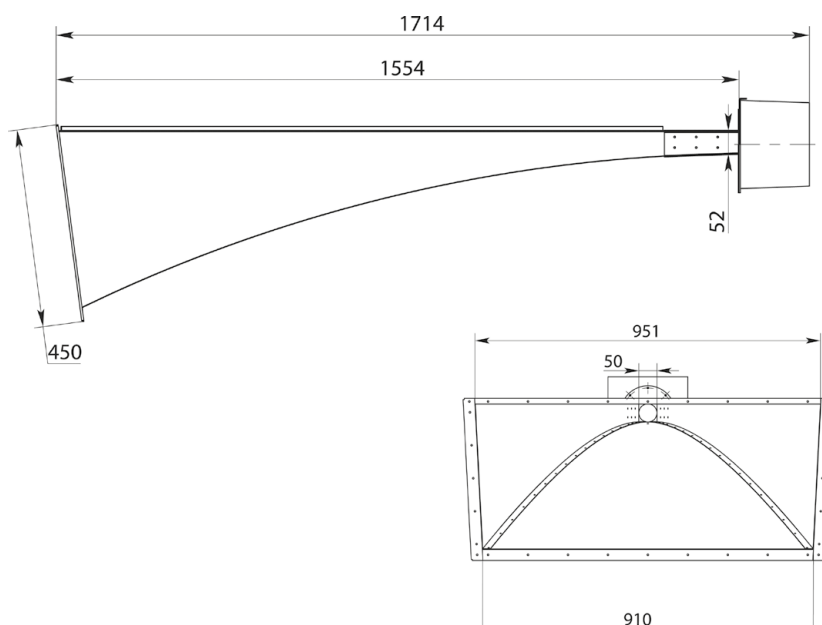
- ✓ *Specially designed for tunnel applications*
- ✓ *Highly directional asymmetric horn*
- ✓ *Excellent speech intelligibility*
- ✓ *Stainless steel construction*
- ✓ *Waterproof housing IP66*
- ✓ *High power output 100 / 50 / 25 W*
- ✓ *Thermal protection*
- ✓ *Certificate of Conformity: 1438-CPR-0778*



In case of an emergency, the Voice Evacuation System needs to guide people in the tunnel to safety so the audio transmission should be as clear as possible. In general, due to high levels of reverberation and noise, a tunnel is not an ideal environment for Voice Evacuation System and therefore speech intelligibility becomes a critical parameter for any voice alarm application.

To establish a sufficient level of speech intelligibility, a highly directional speakers system is required. By reducing the energy emitted to other surfaces, reflective sound energy can be minimized which results in a better direct to reverberant ratio. This will improve the maximum feasible speech intelligibility. To minimize disturbing echo effects, resulting in a loss of speech

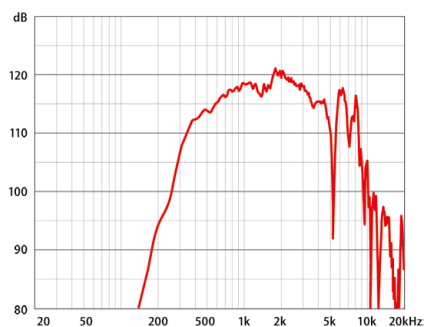
intelligibility, each horn speaker is driven by an individual signal channel in a 100 V installation, which is equipped with audio DSP including EQ and delay. Our product S4T (Safety For Tunnel) offers the most effective solution which seamlessly combines a dedicated Voice Evacuation System with tailored Tunnel Loudspeakers.



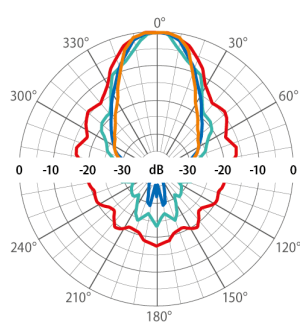


		<b>ABT-TNL100</b>
<b>Electrical</b>		
Rated power, W		100
Tappings 100 V line, W		100 / 50 / 25
Tappings 70 V line, W		50 / 25 / 12,5
Transformer impedance @ 100 V, Ω		100 / 200 / 400
Driver impedance, Ω		6
Effective frequency range, Hz		250 – 8000
Sensitivity @ 4 m, 1 W, dB		99
SPL @ 4 m, rated power, dB		118
SPL @ 1 m, 1 W, dB		111
SPL @ 1 m, rated power, dB		131
Horizontal dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]		27 / 22 / 27 / 21
Vertical dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]		60 / 36 / 21 / 15
<b>Environmental</b>		
Environmental type		B
IP Rating		IP66
Min. / max. ambient temperature		-25°C / 70°C
<b>Mechanical</b>		
Dimensions, mm		1714 × 1020 × 450
Net weight, kg		34,2
Colour		Grey (RAL 7037)
Material		Stainless steel
Mounting		Anchor for concrete
<b>Option</b>		
For DC line monitoring		Capacitor
Colour optional		RAL palette
<b>Ease Model</b>		
		✓

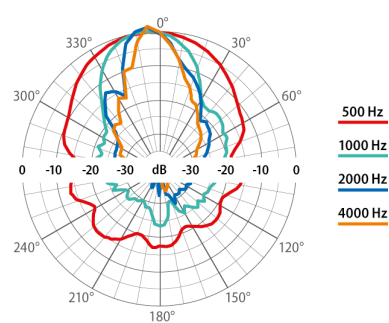
Frequency band:



Circular chart of directional characteristic – horizontal:



Circular chart of directional characteristic – vertical:



# ABT-S226/AB

## CEILING-MOUNTED A/B LOUDSPEAKER

- ✓ Compliance with EN 54-24
- ✓ Certificate of Conformity issued by CNBOP: 1438-CPR-0899
- ✓ Compliance with BS5839-8 standard (Thermal protection)
- ✓ 6-watt transformer enabling precise handling of loudspeaker power
- ✓ Optimised level of speech intelligibility
- ✓ Operation of two A/B loudspeaker lines



**NEW!**

The ceiling-mounted ABT-S226/AB loudspeaker has been designed to guarantee the highest quality of sound even in difficult conditions. ABT-S226/AB is equipped with two in-built drivers, two transformers, two thermal fuses and two ceramic connection blocks, which allow the connection of two independent A/B loudspeaker lines. ABT-S226/AB has been designed for application

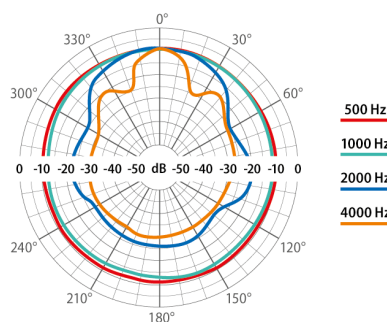
in rooms of such size and acoustic conditions that the design proposes one ceiling-mounted loudspeaker of VES standard. In case of a single fault on the loudspeaker line, there is no loss of the sound coverage. To be sure that our speakers meet the highest quality standards, we test them thoroughly according to procedures that guarantee excellent sound emission parameters,

safety and reliability. The loudspeaker offers adjustable power regulation through connection to applicable transformer tapings thus allowing suitable sound pressure level within areas of sound emission adequately to the character and acoustic conditions existing in those areas.

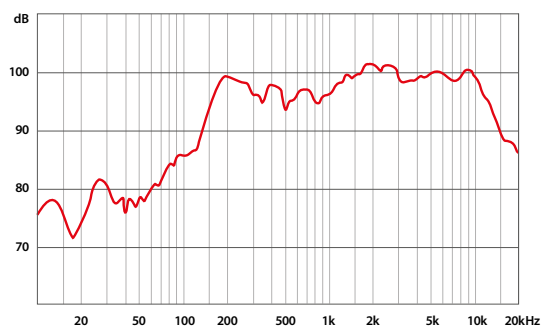


		<b>ABT-S226/AB</b>
<b>Electrical</b>		
Number of transducers		2
Rated power, W		2 × 6
Tappings 100 V line according to EN 54-24, W		2 × 6 / 3 / 1,5 / 0,75
Tappings 70V line, W		2 × 3 / 1,5 / 0,75 / 0,37
Transformer impedance, Ω 100V		2 × 1667 / 3333 / 6666 / 13333
Driver impedance, Ω		8
Effective frequency range, Hz		150–20000
Sensitivity @ 4 m, 1 W, dB		75
SPL @ 4 m, Rated power, dB		85
SPL @ 1 m, 1 W, dB, Test signal bandwidth 300 Hz–6 kHz		89
SPL @ 1 m, Rated power, dB, Test signal bandwidth 300 Hz–6 kHz		99
Horizontal dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]		180 / 180 / 150 / 110
Vertical dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]		180 / 160 / 80 / 40
<b>Environmental</b>		
Environmental type / IP Rating according to EN 54-24		A / IP21C
IP Rating		32
Min / Max Amb Temp		-10°C / 55°C
<b>Mechanical</b>		
Dimensions, mm		Height 115 mm , ø220
Net Weight, kg		1,8
Colour		White (RAL 9003)
Material		Steel
Mounting		Spring clamp
<b>Option</b>		
For DC line monitoring		Capacitor (ABT-S226C/AB)
Colour optional		RAL Palette
<b>Ease Model</b>		

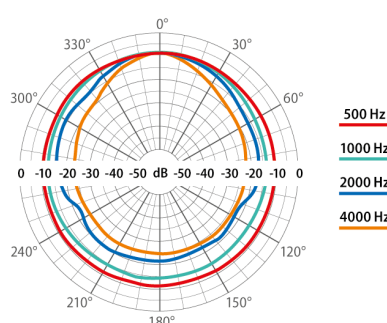
Circular chart of directional characteristic – horizontal:



Frequency band:



Circular chart of directional characteristic – vertical:



# ABT-SW176/AB

EN 54-24

## SURFACE MOUNTED AB LOUDSPEAKER

- ✓ *Compliance with EN 54-24*
- ✓ *Certificate of Conformity:  
1438-CPR-0885*
- ✓ *Compliance with BS5839-8 standard  
(thermal protection)*



**NEW!**

The ABT-SW176/AB is an elegant multi-function loudspeaker designed to guarantee the highest acoustic parameters. The loudspeaker can be mounted either on a wall or on a ceiling.

ABT-SW176/AB is equipped with two in-built drivers, two transformers, two thermal fuses and two ceramic connection blocks, which allow the connection of two independent A/B loudspeaker lines.

Our loudspeakers are perfect on any circulation routes and in staircases located in shopping centres, offices, schools, hotels, hospitals, and industrial buildings.

The loudspeaker mingles well with any interior and is virtually invisible thanks to its small dimensions and neat white finish.

The loudspeaker offers adjustable power regulation through connectivity to applicable transformer tapings thus allowing suitable acoustic pressure (the level of sound) within areas of sound emission adequately to the acoustic conditions existing in those areas.

To be quite sure our loudspeakers comply with the highest quality standards we test them thoroughly following the most meticulous procedures that warrant excellent parameters of sound emission, safety, and reliability. They are also recommended for use in any and all public address systems.

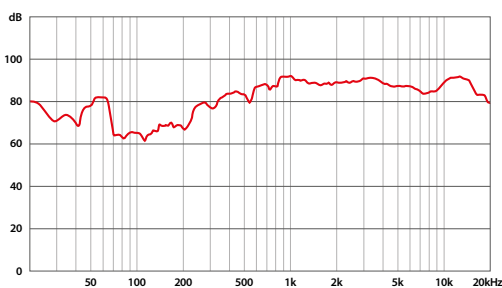
## CHARACTERISTICS

- » *Easy and quick to mount*
- » *Modern and elegant design*
- » *High quality sound of both speech and music*
- » *Ideal for on-wall or on-ceiling mounting*
- » *6 W transformers with multiple branches ensuring accurate selection of output power*
- » *Operation of two A/B loudspeaker lines*

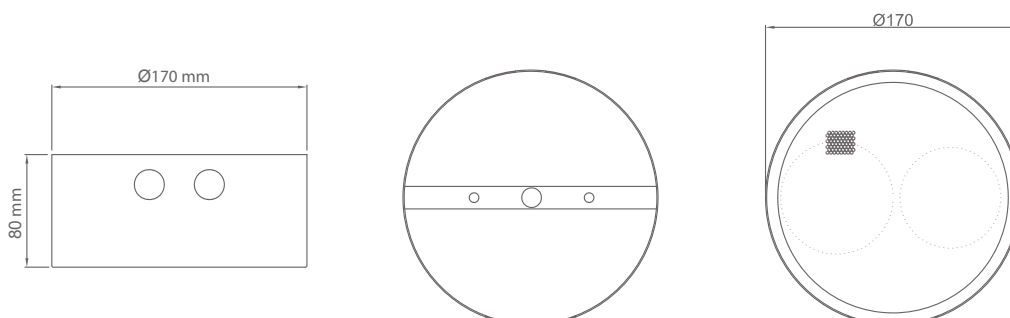
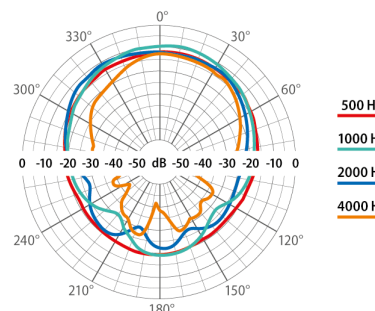


		ABT-SW176/AB
<b>Electrical</b>		
Rated power, W		2 x 6
Tappings 100 V line according to EN 54-24, W		2 x 6 / 3 / 1,5 / 0,75
Tappings 70V line, W		2 x 3 / 1,5 / 0,75 / 0,37
Transformer impedance @ 100 V, $\Omega$		2 x 1667/3333/6667/13333
Driver impedance, $\Omega$		2 x 8
Effective frequency range, Hz		150–20 000
Sensitivity @ 4 m, 1 W, dB		74
SPL @ 4 m, rated power, dB		84
SPL @ 1 m, 1 W, dB, test signal bandwidth 300 Hz–6 kHz		86
SPL @ 1 m, rated power, dB, test signal bandwidth 300 Hz–6 kHz		96
Horizontal dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]		360 / 160 / 75 / 40
Vertical dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]		360 / 190 / 130 / 100
<b>Environmental</b>		
Environmental type / IP Rating according to EN 54-24		A / IP21C
IP Rating		32
Min./max. ambient temperature		-10°C / 55°C
<b>Mechanical</b>		
Dimensions, mm		Height 80, $\varnothing$ 170
Net weight, kg		1,26
Colour		White (RAL 9003) / Black (RAL 9011)
Material		Steel
Mounting		Screw
<b>Option</b>		
For DC line monitoring		Capacitor (ABT-SW176C/AB)
Colour optional		RAL palette
<b>Ease Model</b>		

Frequency band:



Circular chart of directional characteristic:



# ABT-W6W/AB

## WALL-MOUNTED AB LOUDSPEAKER

- ✓ *Compliance with EN 54-24*
- ✓ *Certificate of Conformity: 1438-CPR-0884*
- ✓ *Compliance with BS5839-8 standard (thermal protection)*



**NEW!**

The ABT-W6W/AB is an elegant multi-function loudspeaker designed to guarantee the highest acoustic parameters. The loudspeaker can be mounted either on a wall or on a ceiling.

ABT-W6W/AB is equipped with two in-built drivers, two transformers, two thermal fuses and two ceramic connection blocks, which allow the connection of two independent A/B loudspeaker lines.

Our loudspeakers are perfect on any norm and circulation routes and in staircases located in shopping centres, offices, schools, hotels, hospitals, and industrial buildings. The loudspeaker fits well in any interior thanks to its small dimensions and white finish.

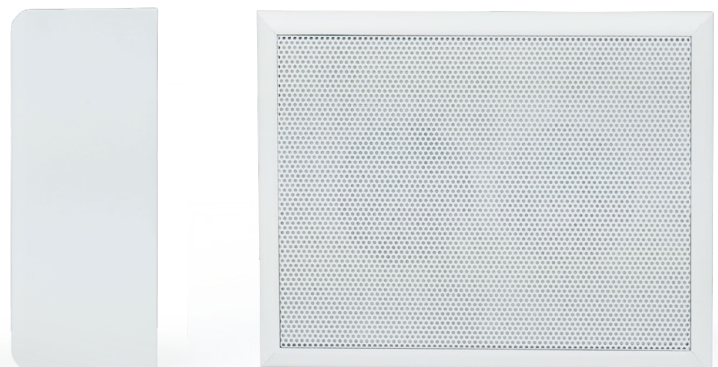
The loudspeaker offers adjustable power regulation through connection to applicable transformer tapings thus allowing suitable sound pressure level within areas of sound emission adequately to the acoustic conditions existing in those areas.

To be sure that our speakers meet the highest quality standards, we test them thoroughly according to procedures

that guarantee excellent sound emission parameters, safety and reliability. They are also recommended for use in public address systems.

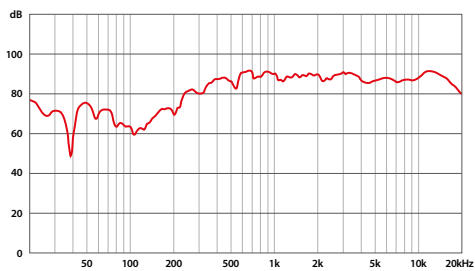
### CHARACTERISTICS

- » *Easy and quick to mount*
- » *Modern and elegant design*
- » *High quality sound of both speech and music*
- » *Ideal for wall installation*
- » *6 W transformers with multiple branches ensuring accurate selection of output power*
- » *Operation of two A/B loudspeaker lines*

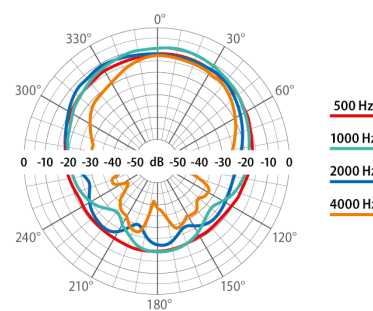


		ABT-W6W/AB
<b>Electrical</b>		
Rated power, W		2 x 6
Tappings 100 V line according to EN 54-24, W		2 x 6 / 3 / 1,5 / 0,75
Tappings 70V line, W		2 x 3/1,5/0,75/0,37
Transformer impedance @ 100 V, Ω		2 x 1667/3333/6667/13333
Driver impedance, Ω		2 x 8
Effective frequency range, Hz		120 – 20 000
Sensitivity @ 4 m, 1 W, dB		75
SPL @ 4 m, rated power, dB		84
SPL @ 1 m, 1 W, dB, test signal bandwidth 300 Hz – 6 kHz		87
SPL @ 1 m, rated power, dB, test signal bandwidth 300 Hz – 6 kHz		96
Horizontal dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]		225 / 135 / 70 / 45
Vertical dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]		245 / 190 / 140 / 115
<b>Environmental</b>		
Environmental type / IP rating according to EN 54-24		A / IP21C
IP rating		32
Min./max. ambient temperature		-10°C / 55°C
<b>Mechanical</b>		
Dimensions, mm		254 x 196 x 78
Net weight, kg		1,99
Colour		White (RAL 9003)
Material		MDF
Mounting		Screw
<b>Option</b>		
For DC line monitoring		Capacitor (ABT-W6WC/AB)
<b>Ease Model</b>		

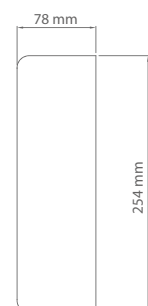
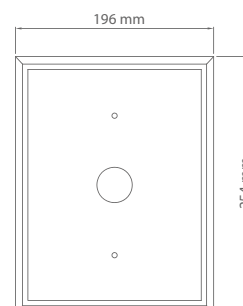
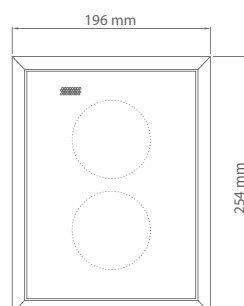
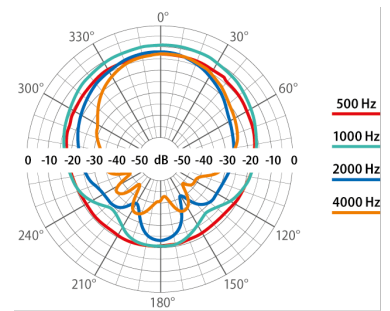
Frequency band:



Circular chart of directional characteristic – horizontal:



Circular chart of directional characteristic – vertical:



# ABT-W6/AB

EN 54-24

## WALL-MOUNTED AB LOUDSPEAKER

- ✓ *Compliance with EN 54-24*
- ✓ *Certificate of Conformity issued by CNBOP: 1438-CPR-0413*
- ✓ *Compliance with BS5839-8 standard (thermal protection)*



The ABT-W6/AB is an elegant multi-function loudspeaker designed to guarantee the highest acoustic parameters. Its solid casing offers an effective protection against acts of vandalism. The loudspeaker can be mounted either on a wall or on a ceiling.

Additionally, the ABT-W6/AB loudspeaker can be fixed as an recessed speaker and therefore it is an ideal solution for rooms where aesthetic factors play a significant role.

The loudspeaker offers adjustable power regulation through connectivity to applicable transformer tapings thus allowing suitable acoustic pressure (the level of sound) within areas of sound emission adequately to the acoustic conditions existing in those areas.

Unlike the standard wall-mounted fire alarm loudspeakers; the ABT-W6/AB is equipped with two in-built electro-acoustic transducers, two transformers and two separate sets of ceramic clamps and fuses, which allow connectivity of two independent A/B loudspeaker lines.

ABT-W6/AB has been designed for application in rooms of such size and acoustic conditions that the design proposes one wall-mounted loudspeaker of VES standard. However, in case of a single fault on the loudspeaker line, there is no loss of the sound coverage area in rooms with installed wall-mounted ABT-W6/AB loudspeakers.

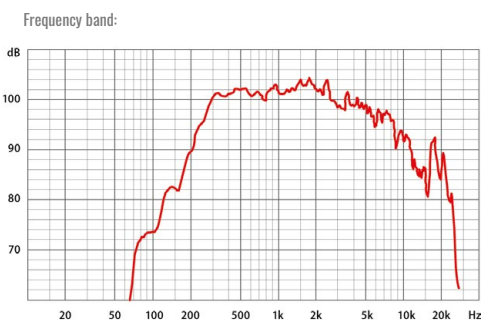
## CHARACTERISTICS

- » *Easy and quick to mount*
- » *Modern and elegant design*
- » *High quality sound of both speech and music*
- » *Ideal for on-wall or in-wall mounting*

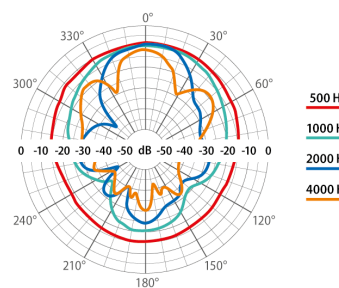




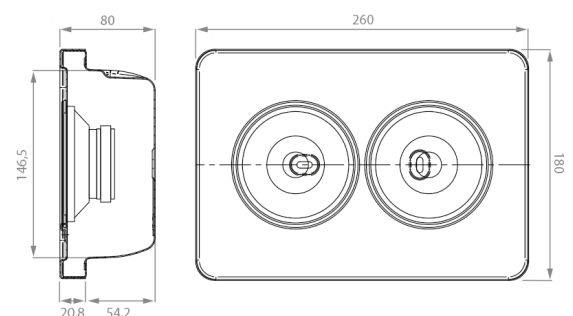
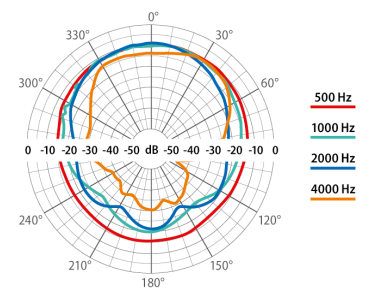
	ABT-W6/AB
<b>Electrical</b>	
Rated power, W	2 × 6
Tappings 100 V line according to EN 54-24, W	2 × 6/3/1,5/0,75
Tappings 70V line, W	2 × 3/1,5/0,75/0,37
Transformer impedance @ 100 V, Ω	2 × 1667/3333/6667/13333
Driver impedance, Ω	2 × 8
Effective frequency range, Hz	150 – 20 000
Sensitivity @ 4 m, 1 W, dB	84
SPL @ 4 m, rated power, dB	91
SPL @ 1 m, 1 W, dB, test signal bandwidth 300 Hz – 6 kHz	97
SPL @ 1 m, rated power, dB, test signal bandwidth 300 Hz – 6 kHz	104
Dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]	180 / 165 / 53 / 30
<b>Environmental</b>	
Environmental type / IP rating according to EN 54-24	A / IP21C
IP rating	32
Min./max. ambient temperature	-10°C / 55°C
<b>Mechanical</b>	
Dimensions, mm	260 × 180 × 80
Net weight, kg	2,25
Colour	White (RAL 9003)
Material	Steel
Mounting	Screw
<b>Option</b>	
For DC line monitoring	Capacitor
Colour optional	RAL palette
<b>Ease Model</b>	
	✓



Circular chart of directional characteristic – horizontal:



Circular chart of directional characteristic – vertical:



# ABT-BS140 / ABT-BS220

## ACTIVE BEAM STEERING LINE ARRAY

- ✓ *Excellent Speech Intelligibility*
- ✓ *Bandwidth 130Hz-20kHz for enhanced music reproduction*
- ✓ *Both line input and high impedance input level for 100V*
- ✓ *Adjustable sound beam*
- ✓ *Suitable for daisy chain installations*
- ✓ *Limiters, noise gate, 10-band parametric EQ, delay line*

ABT-BS140 and ABT-BS220 are digitally beam steering line arrays, which have been specially designed to meet the most stringent requirements for the reproduction of the sound for both speech and music.

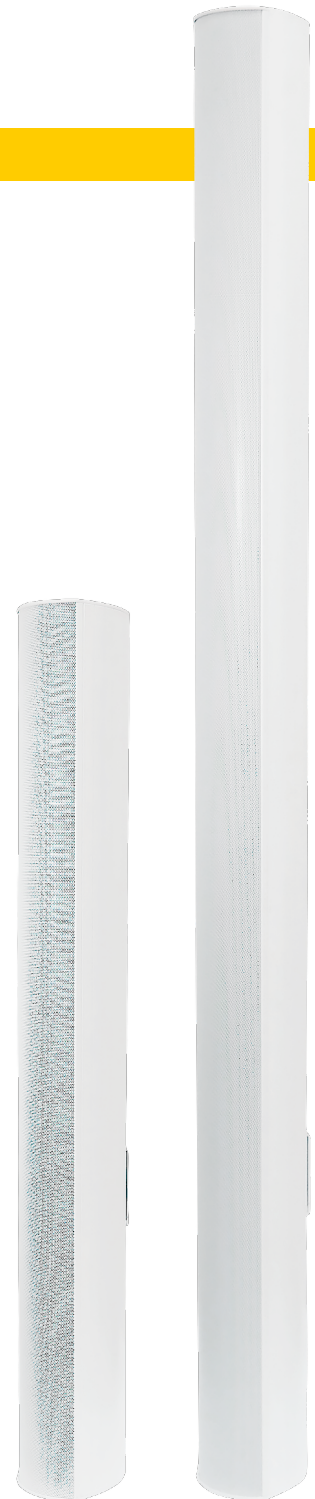
They are aimed at large-volume rooms and reverberant acoustic environments, where meeting speech intelligibility requirements can be very challenging.

Thanks to the use of a multi-channel digital signal processor DSP, the implemented algorithms will modify the directivity of the emitted sound and model the shape of the acoustic beam, adapting it to the acoustic conditions in the audience area.

Using the beam steering feature, these line arrays will reach large distances with a highly uniform sound pressure level precisely covering a greater area per speaker.

ABT-BS line arrays are perfect for facilities such as airports, railway stations, sports venues, exhibition halls, shopping malls, places of worship etc.

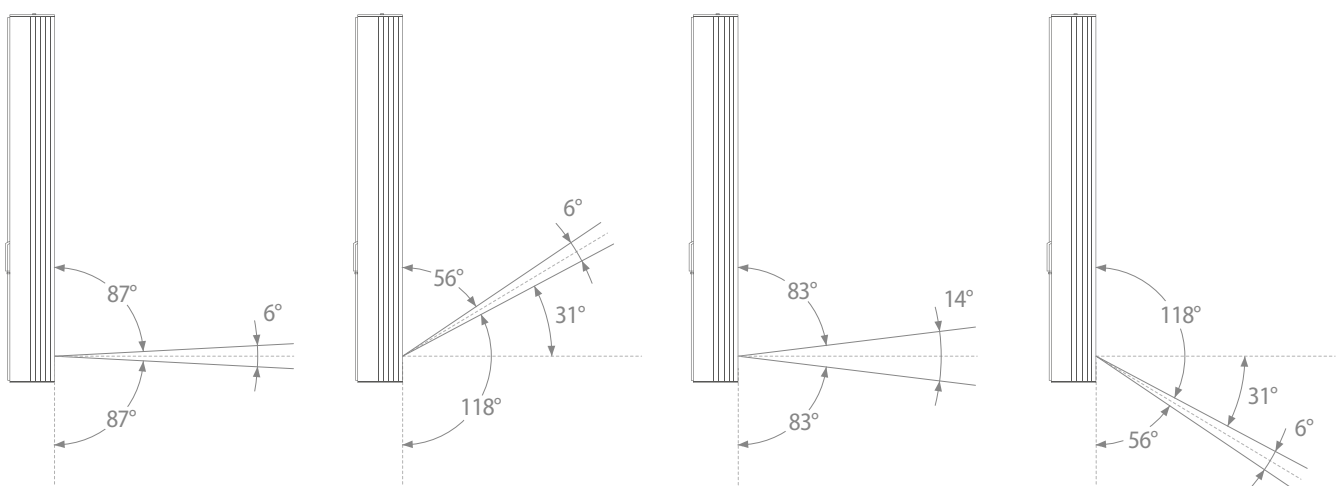
The line arrays can be controlled via the DSP ABT-BS INT interface, to programme the appropriate configuration and settings for the required directivity and frequency characteristics in real time. These settings are saved in the internal memory of each column. This enables quick and easy configuration of the entire system during the commissioning process.



ABT-BS220

ABT-BS140

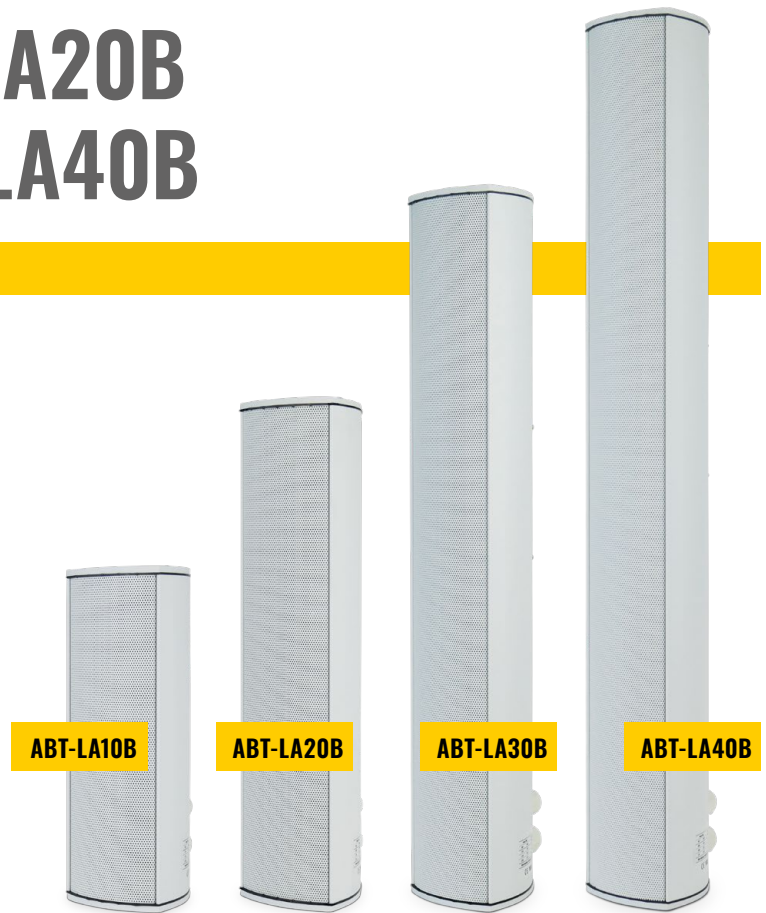
	ABT-BS140	ABT-BS220
<b>Electrical</b>		
Rated power, W	140	220
Effective frequency range, Hz	130 - 20 000	120 - 20 000
Loudspeakers	9 x 3,3"	15 x 3,3"
Dome tweeters	3 x 1"	4 x 1"
DSP channel	8	16
Class D power amplifier	8 x 20 W	16 x 20 W
SPL @ 1 m, rated power, dB	113	119
SPL @ 4 m, rated power, dB	101	107
Max SPL , rated power, dB	95 @ 15m	95 @ 25m
Horizontal dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]	360 / 180 / 140 / 110	360 / 180 / 140 / 100
Vertical dispersion, [°]	6 ÷ 14	6 ÷ 14
DSP	Limiter, noise gate, 10-band parametric EQ, delay line	
<b>Audio inputs</b>		
Line input level [dB]	0	
100V input level [dB]	+ 50	
Line input impedance [kΩ]	15	
100V input impedance [kΩ]	40	
<b>Power supply</b>		
Power supply, V AC	230	
Power consumption, W	15 ÷ 160	30 ÷ 280
<b>Mechanical</b>		
Dimensions, H x W x D, mm	900 x 95 x 119	1450 x 95 x 113
Net weight, kg	4,6	5,8
Color	White (RAL 9016)	
Material	Aluminium	
<b>Option</b>		
Color optional	RAL Palette	



# ABT-LA10B / ABT-LA20B ABT-LA30B / ABT-LA40B

## LINE ARRAY LOUDSPEAKERS COLUMNS

- ✓ *Speaker tested to comply with the requirements of the Dynamic Passenger Information System for railways*



ABT-LA10B, ABT-LA20B, ABT-LA30B, ABT-LA40B loudspeakers are Type B loudspeakers designed to meet the requirements for the Dynamic Passenger Information System for railways.

They provide much further coverage while maintaining high sound level uniformity in the publicized area. ABT-LAB loudspeakers are characterized by high directivity, so the sound emitted by the loudspeaker is directed precisely to the listening area and not to undesired areas, such as the ceiling or floor. ABT-LAB are dedicated primarily for rooms with long reverberation times and unfavorable acoustic conditions for speech intelligibility.

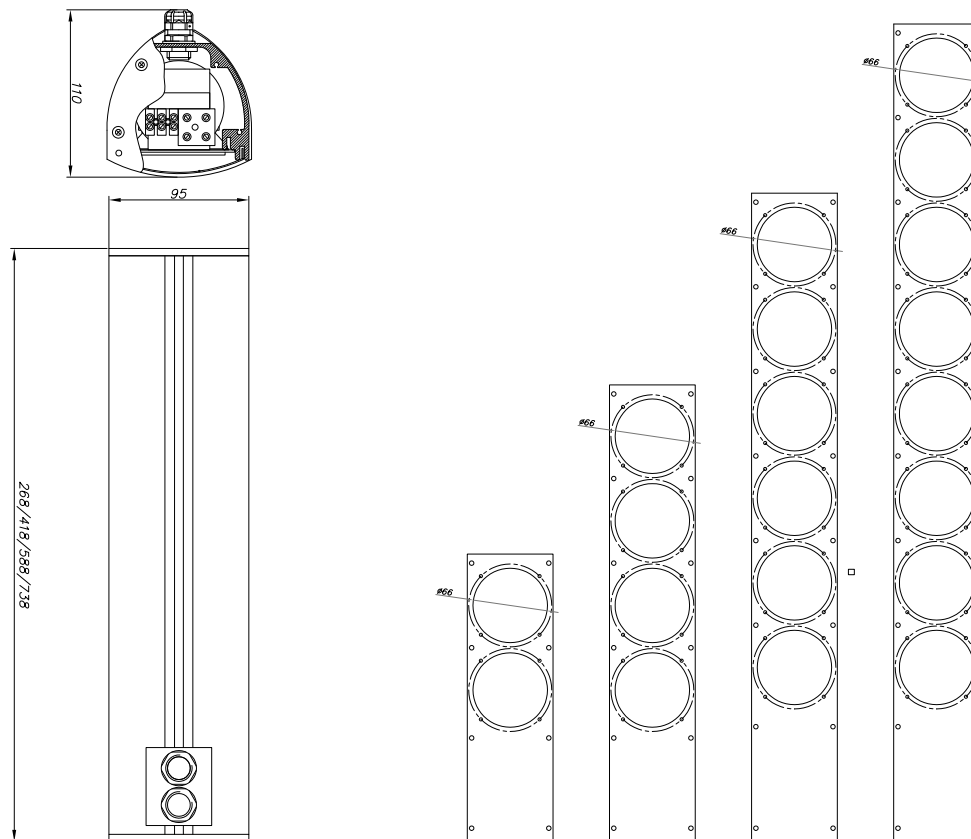
The frequency response of ABT-LAB speakers has been designed for most accurate reproduction of the speech signal, to provide the highest speech intelligibility required in Public Address systems.

They are also perfectly suited for music broadcasting. Robust aluminum housing that provides the degree of protection to environmental parameters IP65 and mechanical impact IK07 guarantees long, trouble-free operation in all conditions

## CHARACTERISTICS

- » *Easy and quick installation*
- » *High sound quality of both speech and music*
- » *Highest level of speech intelligibility*
- » *Ideal for mounting on a ceiling, wall or pole.*
- » *Two cable inputs insulated with glands*
- » *Weatherproof housing IP65*
- » *For indoor and outdoor applications*

	ABT-LA10B	ABT-LA20B	ABT-LA30B	ABT-LA40B
<b>Electrical</b>				
Rated power, W	10	20	30	40
Tappings 100 V line, W	10 / 5 / 2,5	20 / 10 / 5	30 / 15 / 7,5	40 / 20 / 10
Tappings 70 V line, W	5 / 2,5 / 1,25	10 / 5 / 2,5	15 / 7,5 / 3,75	20 / 10 / 5
Effective frequency range, Hz	150 – 15000*	150 – 15000*	150 – 15000*	150 – 15000*
SPL @ 4 m, Rated power, dB	87	92	94	96
SPL @ 1 m, 1 W, dB	90	91	93	92
SPL @ 1 m, Rated power, dB	99	104	106	108
Horizontal dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]	360 / 190 / 140 / 120	360 / 190 / 140 / 120	360 / 190 / 140 / 120	360 / 180 / 130 / 110
Vertical dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]	360 / 96 / 42 / 24	260 / 68 / 34 / 20	104 / 66 / 28 / 14	52 / 28 / 11 / 2
<b>Environmental</b>				
Environmental type	Type B			
IP rating	IP65			
Min. / max. ambient temperature	-25°C / 55°C			
<b>Mechanical</b>				
Dimensions, mm	95 × 345 × 100	95 × 408 × 100	95 × 519 × 100	95 × 946 × 100
Colour	Light gray (RAL 7035)			
Material	Aluminium			
Impact Protection	IK07			
Mounting	Mounting screws, mounting bracket			



# ABT-S206F

## CEILING-MOUNTED LOUDSPEAKER

- ✓ *Speaker tested to comply with the requirements of the Dynamic Passenger Information System for railways*



ABT-S206F are Type A loudspeakers designed to meet the requirements for the Dynamic Passenger Information System for railways.

The ABT-S206F loudspeakers are designed to operate at high sound pressure levels with maximum reduction in required power. The actual high efficiency of the speakers over a wide bandwidth guarantees the highest speech intelligibility.

The parameters of the speakers have been carefully selected for operation in ceilings suspended ceilings at standard height, as

well as in cases where the distance to the ceiling is much higher.

ABT-S206F loudspeakers combine excellent acoustic parameters with high aesthetics, resistance to mechanical damage and changes atmospheric conditions. They have a high degree of protection against environmental parameters IP54 and mechanical impact IK07.

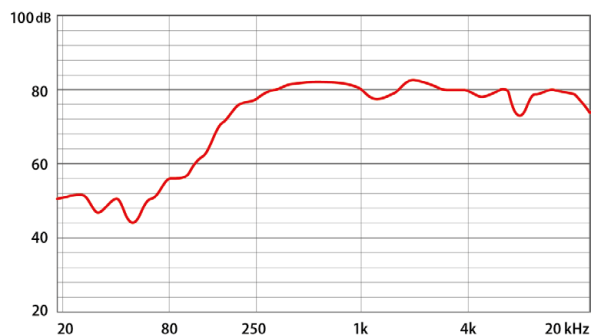
## CHARACTERISTICS

- » *Highest level of speech intelligibility*
- » *6-watt transformer allowing precise selection of the speaker power*
- » *Modern and elegant design*
- » *High quality sound of both speech and music*

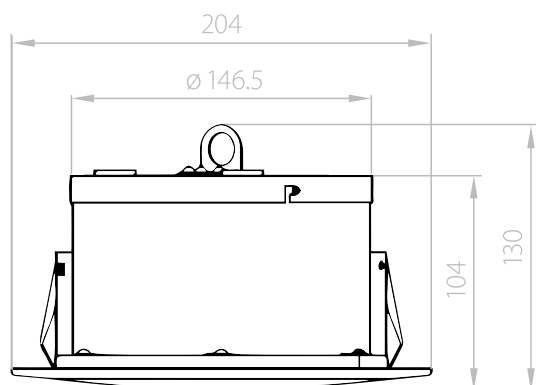
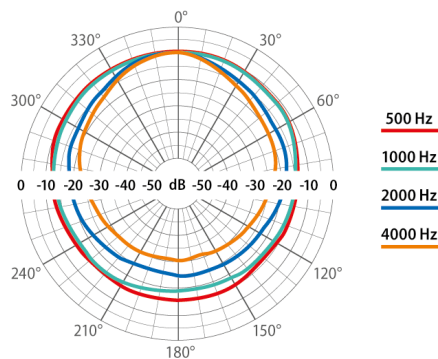


		ABT-S206F
<b>Electrical</b>		
Rated power, W		6
Tappings 100 V line, W		6 / 3 / 1,5 / 0,75
Tappings 70 V line, W		3 / 1,5 / 0,75 / 0,38
Effective frequency range, Hz		150 – 15000*
SPL @ 4 m, Rated power, dB		86
SPL @ 1 m, 1 W, dB		91
SPL @ 1 m, Rated power, dB		99
Dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]		180 / 180 / 160 / 85
<b>Environmental</b>		
Environmental type		Type A
IP rating		IP54
Min. / max. ambient temperature		-10°C / 55°C
<b>Mechanical</b>		
Dimensions, mm		ø204 x 130
Colour		White, RAL palette
Material		Metal
Mounting		Spring clamp
Impact Protection		IK07
Cut-out, mm		ø170

Frequency band:



Circular chart of directional characteristic:



# ABT-W6F

## WALL-MOUNTED LOUDSPEAKER

- ✓ *Speaker tested to comply with the requirements of the Dynamic Passenger Information System for railways*



ABT-W6F are Type A loudspeakers designed to meet the requirements for the Dynamic Passenger Information System for railways.

The ABT-W6F loudspeaker is an elegant multifunction loudspeaker designed to ensure the highest acoustic parameters. A solid, durable housing protects the loudspeaker against acts of vandalism.

It has a high degree of protection with the environmental parameters IP44 and mechanical impact IK07.

The loudspeaker is designed for wall or on ceiling mounting. In addition, it has the option of flush mounting, which makes it perfect for interior spaces where high aesthetics is required.

The loudspeaker has the possibility of power adjustment by connecting to the appropriate transformer tap, thanks to which it will be possible to properly adjust the sound pressure level, according to the acoustic conditions.

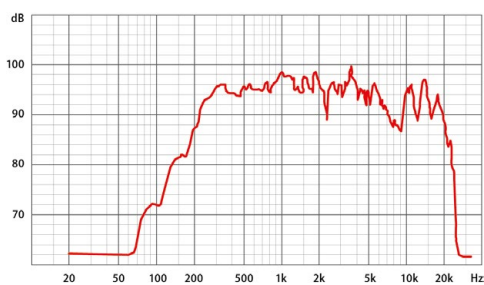
## CHARACTERISTICS

- » *Highest level of speech intelligibility*
- » *6-watt transformer allowing precise selection of the speaker power*
- » *Modern and elegant design*
- » *High quality sound of both speech and music*
- » *Ideal for on-wall or in-wall mounting*
- » *Easy and quick to mount*

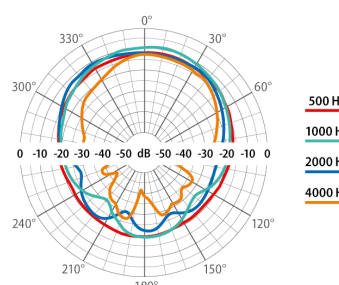


		ABT-W6F
<b>Electrical</b>		
Rated power, W		6
Tappings 100 V line, W		6 / 3 / 1,5 / 0,75
Tappings 70 V line, W		3 / 1,5 / 0,75 / 0,37
Effective frequency range, Hz		150 – 15000*
SPL @ 4 m, Rated power, dB		85
SPL @ 1 m, 1 W, dB		94
SPL @ 1 m, Rated power, dB		101
Dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]		180 / 180 / 163 / 80
<b>Environmental</b>		
Environmental type		Type A
IP rating		IP44
Min. / max. ambient temperature		-10°C / 55°C
<b>Mechanical</b>		
Dimensions, mm		260 × 180 × 80
Colour		White, RAL palette
Material		Metal
Impact Protection		IK07
Cut-out, mm		Screws

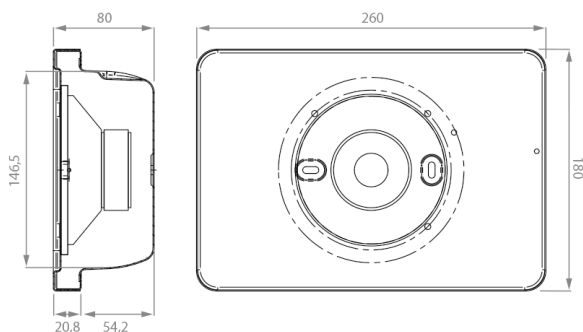
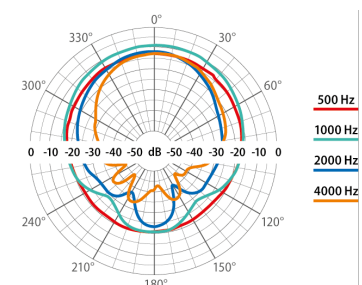
Frequency band:



Circular chart of directional characteristic – horizontal:



Circular chart of directional characteristic – vertical:



# ABT-T2520A

## ACTIVE HORN LOUDSPEAKER WITH BUILT-IN 20 W AMPLIFIER

- ✓ *High sound pressure level*
- ✓ *Protection from dust and humidity:  
IP65 rating*
- ✓ *Internal volume control*



ABT-T2520A is an active horn loudspeaker with a built-in 20 W amplifier designed to work with security systems. It is an ideal choice for applications in security systems, industrial and commercial systems in both outdoor and indoor areas such as train stations, airports, parking lots, parks, gardens, corridors and much more. Built-in 20

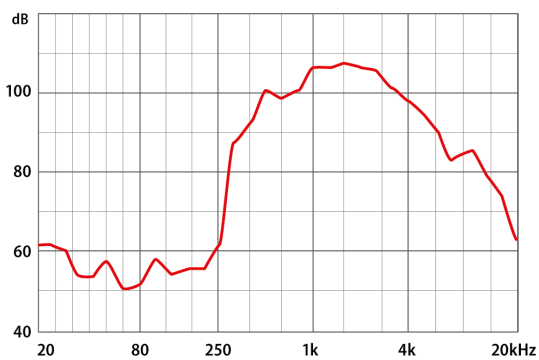
W amplifier powered with 12 V voltage has an audio line-in input. It allows to connect the speaker directly to CCTV camera. Built-in internal volume control of gain allows you to choose the appropriate volume level of the broadcast message. The high efficiency and directionality of the loudspeaker allow broadcasting voice

messages directly to even distant places, while ensuring a high sound pressure level. The durable housing guarantees increased resistance to adverse weather conditions provided by the IP65 rating.

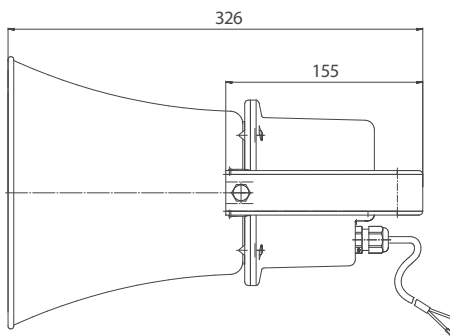
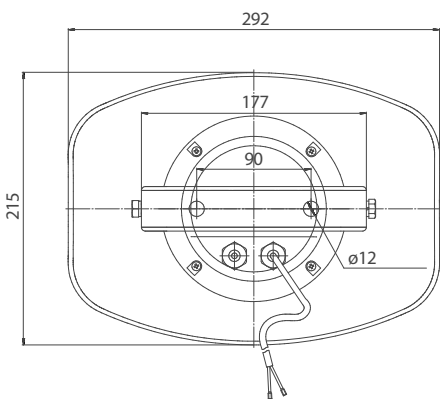
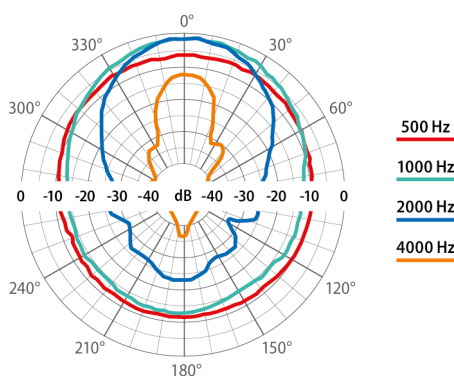


		ABT-T2520A
<b>Electrical</b>		
Rated power of amplifier		20 W
Input impedance		10 kΩ
Power supply		DC 12 V / 2 A
Signal gain		8 dB, 16 dB, 24 dB, 32 dB
Volume adjustment		Internal volume control
Effective frequency range		350 Hz – 9 kHz
Dispersion at 1 kHz		110°
SPL (20W @ 1 m)		112 dB
<b>Environmental</b>		
IP rating		IP65
Min./max. ambient temperature		-20°C / 55°C
<b>Mechanical</b>		
Dimensions		292 × 215 × 326 mm
Net weight		2,1 kg
Colour		Light grey (RAL 7035)
Material		ABS
Mounting		U type bracket
<b>Accessories</b>		
Power Supply		12 VDC / 2 A / 24 W

Frequency band:



Circular chart of directional characteristic:



# ABT-TNL100-1

## HIGHLY DIRECTIONAL TUNNEL LOUDSPEAKER

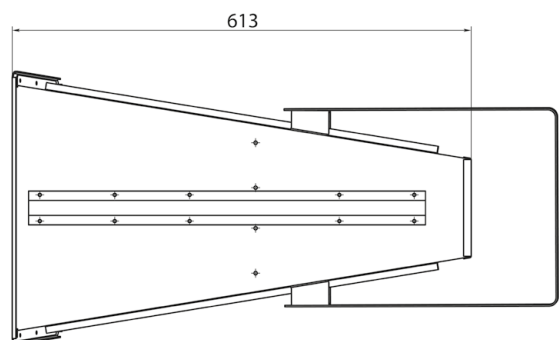
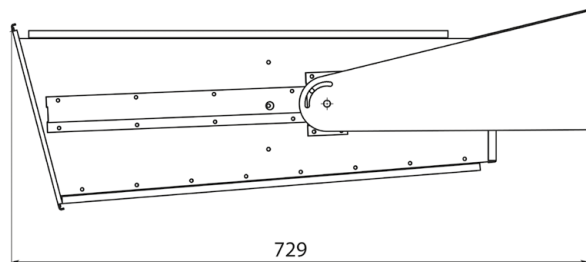
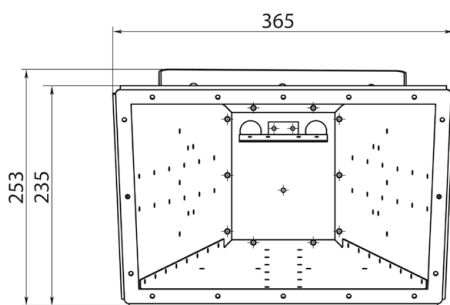
- ✓ *Specially designed for tunnel applications*
- ✓ *Highly directional asymmetric horn*
- ✓ *Excellent speech intelligibility*
- ✓ *Stainless steel construction*
- ✓ *Waterproof housing IP66*
- ✓ *High power output 100 / 50 W*
- ✓ *Thermal protection*



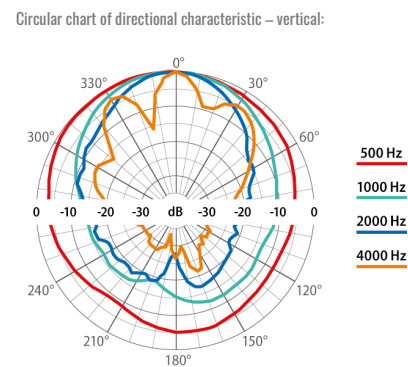
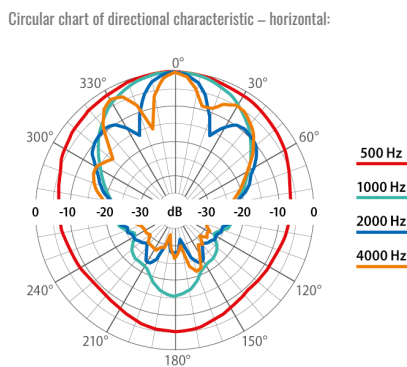
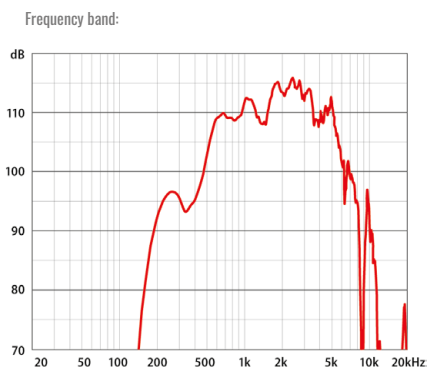
In case of an emergency, the Voice Evacuation System needs to guide people in the tunnel to safety so the audio transmission should be as clear as possible. In general, due to high levels of reverberation and noise, a tunnel is not an ideal environment for Voice Evacuation System and therefore speech intelligibility becomes a critical parameter for any voice alarm application.

To establish a sufficient level of speech intelligibility, a highly directional speakers system is required. By reducing the energy emitted to other surfaces, reflective sound energy can be minimized which results in a better direct to reverberant ratio. This will improve the maximum feasible speech intelligibility. To minimize disturbing echo effects, resulting in a loss of speech intelligibility,

each horn speaker is driven by an individual signal channel in a 100 V installation, which is equipped with audio DSP including EQ and delay. Our product S4T (Safety For Tunnel) offers the most effective solution which seamlessly combines a dedicated Voice Evacuation System with tailored Tunnel Loudspeakers.



		<b>ABT-TNL100-1</b>
<b>Electrical</b>		
Rated power, W		100
Tappings 100 V line, W		100 / 50
Tappings 70 V line, W		50 / 12,5
Transformer impedance @ 100 V, Ω		100 / 200
Driver impedance, Ω		8
Effective frequency range, Hz		250 – 8000
Sensitivity @ 4 m, 1 W, dB		96
SPL @ 4 m, 1 W, dB		116
SPL @ 1 m, 1 W, dB		108
SPL @ 1 m, rated power, dB		128
Horizontal dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]		141 / 66 / 29 / 49
Vertical dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]		192 / 117 / 59 / 47
<b>Environmental</b>		
Environmental type		B
IP Rating		IP66
Min. / max. ambient temperature		-25°C / 70°C
<b>Mechanical</b>		
Dimensions, mm		729 × 365 × 253
Net weight, kg		14,5
Colour		Grey (RAL 7037)
Material		Stainless steel
Mounting		U type bracket
<b>Option</b>		
For DC line monitoring		Capacitor
Colour optional		RAL palette
<b>Ease Model</b>		
		✓



# ETH20MD Loud



## EXPLOSION PROOF LOUDSPEAKER

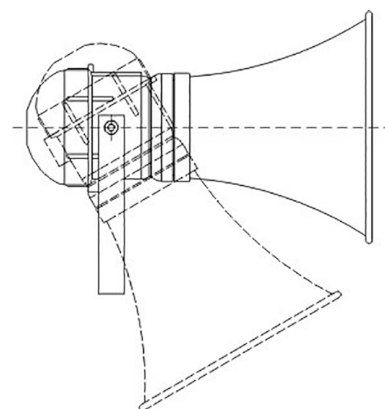
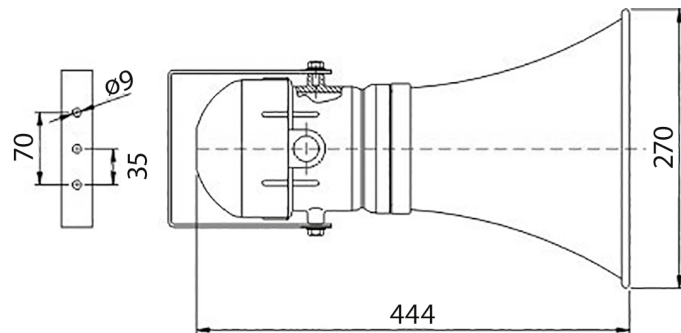
- ✓ Full compliance with directive 2014/34/UE
- ✓ Full compliance with:  
EN 60079-0:2012/A11:2013,  
EN 60079-1:2014, EN 60079-31:2014
- ✓ Ex db IIB+H2 Gb Ex tb IIIC Db II2GD T6 T5
- ✓ Ex db IIC Gb Ex tb IIIC Db II2GD T6 T5
- ✓ Zone 1, zone 2, zone 21, zone 22



The explosion-proof loudspeakers ETH20MD LOUD series have been designed for use in potentially explosive atmospheres in presence of explosive gases and dusts. They have a high degree of protection (IP66) to withstand the harsh off-shore and on-shore plants environmental conditions. They are suitable for connection to standard amplification system with output 100 V, to alarm systems and for public address.

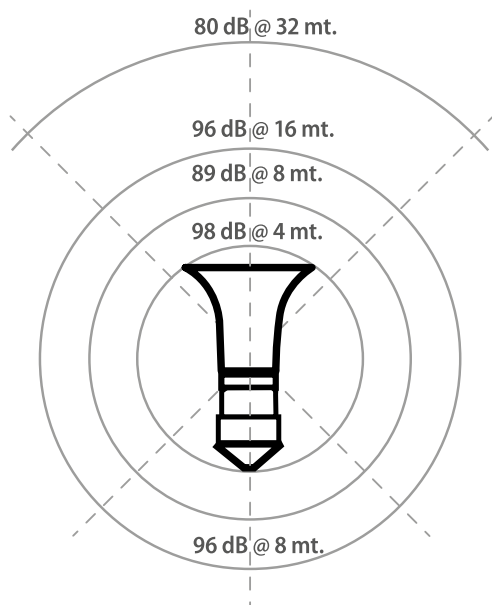
The chamber of acoustic compression is separated from the outer atmosphere through a special filter of sintering. They are equipped with a transformer offering the possibility to adapt and select the sound level according to the real needs of the installation point.

Body, cover and horn cone in aluminium alloy. Adjustable galvanized steel bracket. Bolts and screws in stainless steel. Epoxy coating RAL 7000. Selectable power.



ETH20MD LOUD	
<b>Electrical features</b>	
Selectable power	6W – 12W – 20W – 25W
Rated voltage	100V
Audio line	16Ω
Output	100 ÷ 102 dB @ 6 W 104 ÷ 106 dB @ 12 W 107 ÷ 108 dB @ 20 W 109 ÷ 112 dB @ 25 W
Frequency range	650 ÷ 10 000 Hz @ 6 W 450 ÷ 9000 Hz @ 12 W 400 ÷ 9000 Hz @ 20 W 350 ÷ 10 000 Hz @ 25 W
<b>Environmental</b>	
IP rating	IP66
Min./max. ambient temperature	-20°C / 60°C
<b>Mechanical</b>	
Material	Light alloy body, cover and horn cone
Installation	Adjustable galvanized steel lugs
Hardware	Stainless steel
Gaskets	EPDM
Cable entry	N° 1 Ø 3/4"
Weight	3,5 kg

Outdoor loudness distribution polar diagram:



# ETHY20MD Loud



## EXPLOSION PROOF LOUDSPEAKER STAINLESS STEEL 316

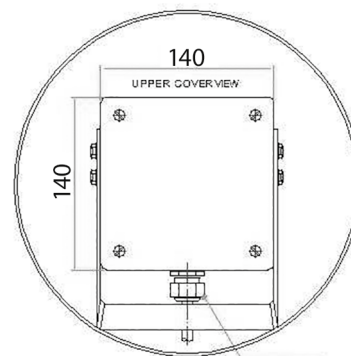
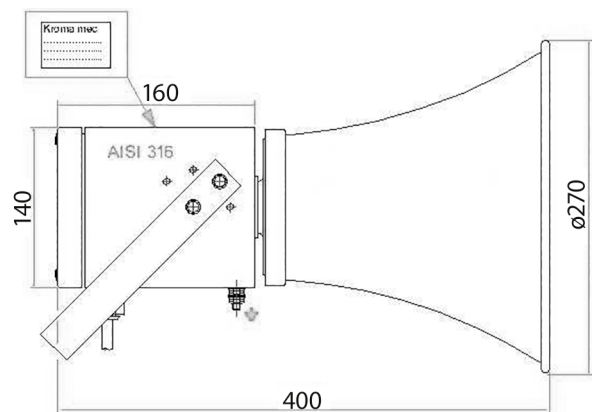
- ✓ Full compliance with directive 2014/34/UE
- ✓ Full compliance with:  
EN 60079-0:2012/A11:2013,  
EN 60079-1:2014, EN 60079-31:2014
- ✓ Ex de mb IIB+H2 Gb Ex mb tb IIIC Db II2GD T6 T5
- ✓ Ex de mb IIC Gb Ex mb tb IIIC Db II2GD T6 T5
- ✓ Zone 1, zone 2, zone 21, zone 22



The explosion-proof loudspeakers ETHY20MD LOUD series have been designed for use in potentially explosive atmospheres in presence of explosive gases and dusts. They have a high degree of protection (IP66) to withstand the harsh off-shore and on-shore plants environmental conditions. They are suitable for connection to standard amplification system with output 100 V, to alarm systems and for public address.

The chamber of acoustic compression is separated from the outer atmosphere through a special filter of sintering. They are equipped with a transformer offering the possibility to adapt and select the sound level according to the real needs of the installation point.

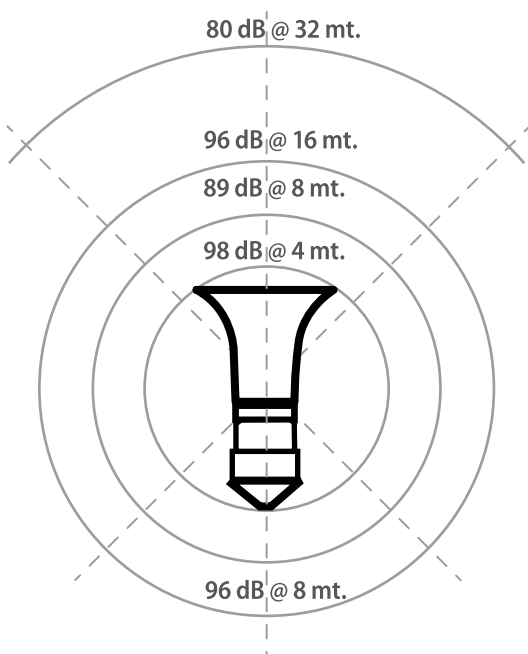
Body, cover and horn cone in stainless steel 316. Adjustable stainless steel 316 bracket. Bolts and screws in stainless steel 316. Epoxy coating RAL 7000. Selectable power.





ETHY20MD LOUD	
<b>Electrical features</b>	
Selectable power	6 W – 12 W – 20 W – 25 W
Rated voltage	100 V
Audio line	16 Ω
Output	100 ÷ 102 dB @ 6 W 104 ÷ 106 dB @ 12 W 107 ÷ 108 dB @ 20 W 109 ÷ 112 dB @ 25 W
Frequency range	650 ÷ 10 000 Hz @ 6 W 450 ÷ 9000 Hz @ 12 W 400 ÷ 9000 Hz @ 20 W 350 ÷ 10 000 Hz @ 25 W
<b>Environmental</b>	
IP rating	IP66
Min./max. ambient temperature	-20°C / 60°C
<b>Mechanical</b>	
Material	Body, cover and horn cone in stainless steel 316
Installation	Adjustable stainless steel 316 bracket
Hardware	Stainless steel
Gaskets	Silicone
Cable entry	N° 2 Ø M20
Weight	7 kg

Outdoor loudness distribution polar diagram:





# ETH20MD Loud 24/48 VDC

## EXPLOSION PROOF LOUDSPEAKER WITH 24/48 VDC AMPLIFIER

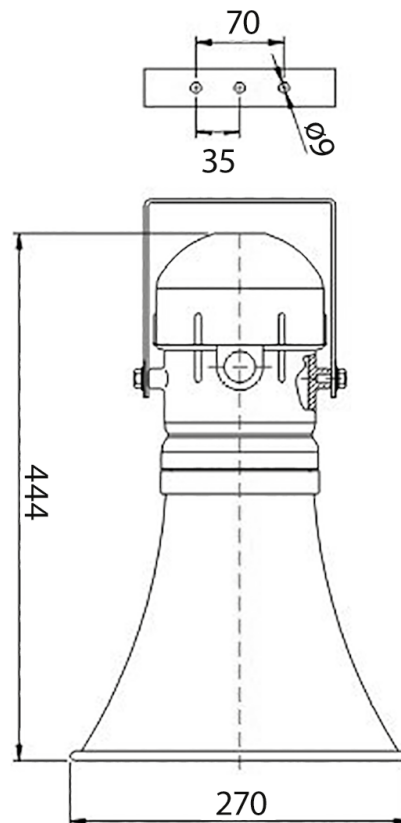
- ✓ Full compliance with directive 2014/34/UE
- ✓ Full compliance with:  
EN 60079-0:2012/A11:2013,  
EN 60079-1:2014, EN 60079-31:2014
- ✓ Incorporate amplifier 24/48 VDC
- ✓ Acoustic pressure a 1 m  
maximum power 112 dB
- ✓ Ex db IIB+H2 Gb Ex tb IIIC Db II2GD T6 T5
- ✓ Ex db IIC Gb Ex tb IIIC Db II2GD T6 T5
- ✓ Zone 1, zone 2, zone 21, zone 22



The explosion-proof loudspeakers ETH20MD LOUD 24/48 VDC series have been designed for use in potentially explosive atmospheres in presence of explosive gases and dusts. They have a high degree of protection (IP66) to withstand the harsh offshore and on-shore plants environmental conditions. They are equipped with a class D audio amplifier powered at 24/48 VDC, to alarm systems and for public address. The chamber of acoustic compression is separated from the outer atmosphere through a special filter of sintering.

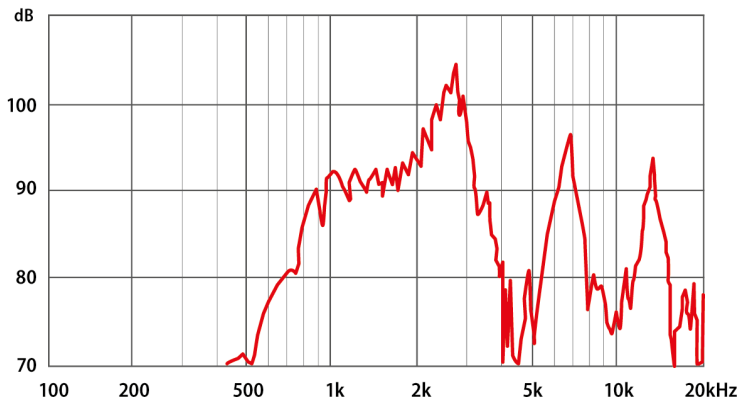
Possibility to select the sound level according to the real needs of the installation site. (4 power steps are available).

Body, cover and horn cone in aluminium alloy. Adjustable galvanized steel bracket. Bolts and screws in stainless steel. Epoxy coating RAL 7000. Selectable power.



ETH20MD LOUD 24/48 VDC	
<b>Features transducer</b>	
Work power	25 W
Maximum power	40 W
Impedance 1 kHz	8 Ω
<b>Environmental</b>	
IP rating	IP66
Min./max. ambient temperature	-20°C / 60°C
<b>Class D audio amplifier</b>	
Input signal	0 dB at 600 8 Ω
Input sensitivity	40 mV / 150 kΩ
Power supply	from 24 VDC to 48 VDC
Absorption at maximum power	0.8 A @ 48 V - 1.2 A @ 24 VDC
Piloting	8 Ω loudspeakers
Output power	30 W
Total harmonic distortion + noise	(f = 1 kHz, PO = 20 W) 0.2%
Signal report / noise	(f = 1 kHz, Gain = 20 dB) 102 dB
Power regulation	adjustable with trimmer from zero to maximum power of the set step
Power step	4 power steps are available, selectable by SW1 dip-switch Step 1 (gain 20 db) = 1.57 W Step 2 (gain 26 db) = 5.4 W Step 3 (gain 32 db) = 21.5 W Step 4 (gain 36 db) = 30.4 W
Frequency response	from 20 Hz to 20 kHz

Frequency band:



# ETH20MD Loud 24/48 VDC Special



## EXPLOSION PROOF LOUDSPEAKER WITH 24/48 VDC AMPLIFIER

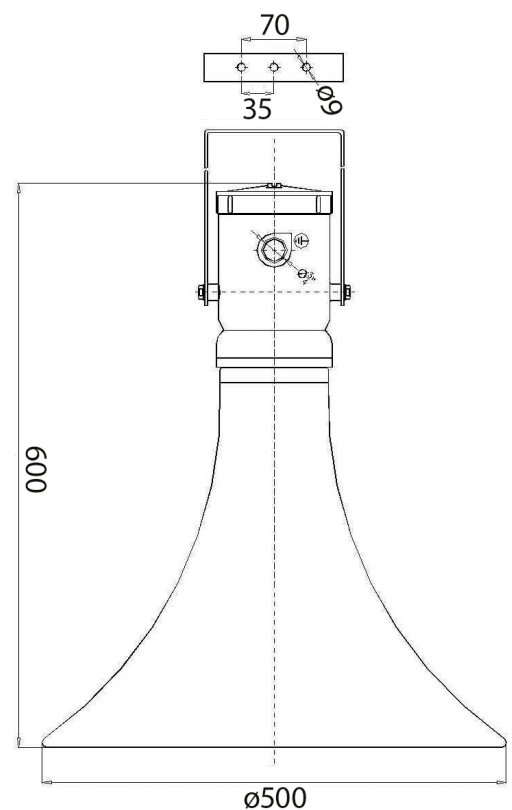
- ✓ Full compliance with directive 2014/34/UE
- ✓ Full compliance with:  
EN 60079-0:2012/A11:2013,  
EN 60079-1:2014, EN 60079-31:2014
- ✓ Incorporate amplifier 24 / 48 VDC
- ✓ Acoustic pressure a 1 m  
maximum power 112 dB
- ✓ Ex db IIB+H2Gb Ex tb IIIC Db II2GD T6 T5
- ✓ Ex db IIC Gb Ex tb IIIC Db II2GD T6 T5
- ✓ Zone 1, zone 2, zone 21, zone 22



The explosion-proof loudspeakers ETH20MD LOUD 24/48 VDC series have been designed for use in potentially explosive atmospheres in presence of explosive gases and dusts. They have a high degree of protection (IP66) to withstand the harsh off-shore and on-shore plants environmental conditions. They are equipped with a class D audio amplifier powered at 24/48 VDC, to alarm systems and for public address. The chamber of acoustic compression is separated from the outer atmosphere through a special filter of sintering.

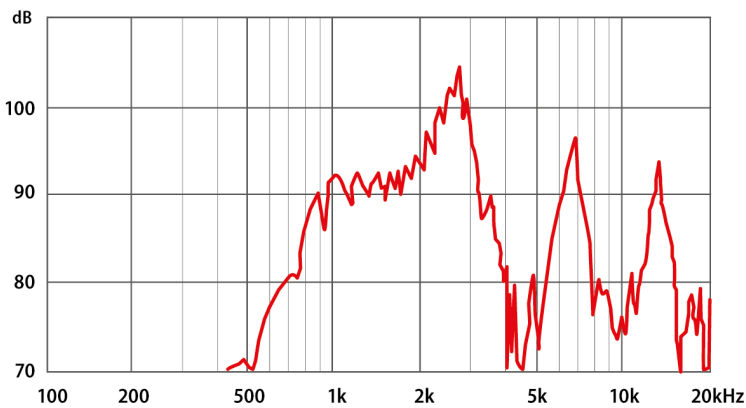
Possibility to select the sound level according to the real needs of the installation site. (4 power steps are available).

Body, cover and horn cone in aluminium alloy. Adjustable galvanized steel bracket. Bolts and screws in stainless steel. Epoxy coating RAL 9005. Selectable power.



ETH20MD Loud 24/48 VDC Special	
<b>Features transducer</b>	
Work power	25 W
Maximum power	40 W
Impedance 1 kHz	8 Ω
<b>Environmental</b>	
IP rating	IP66
Min./max. ambient temperature	-20°C / 60°C
<b>Class D audio amplifier</b>	
Input signal	0 dB at 600 8 Ω
Input sensitivity	40 mV / 150 kΩ
Power supply	from 24 VDC to 48 VDC
Absorption at maximum power	0.8 A @ 48 V - 1.2 A @ 24 VDC
Piloting	8 Ω
Output power	30 W
Total harmonic distortion + noise	(f = 1 kHz, PO = 20 W) 0.2%
Signal report / noise	(f = 1 kHz, Gain = 20 dB) 102 dB
Power regulation	adjustable with trimmer from zero to maximum power of the set step
Power step	4 power steps are available, selectable by SW1 dip-switch Step 1 (gain 20 db) = 1.57 W Step 2 (gain 26 db) = 5.4 W Step 3 (gain 32 db) = 21.5 W Step 4 (gain 36 db) = 30.4 W
Frequency response	from 20 Hz to 20 kHz

Frequency band:



# ABT-S206S

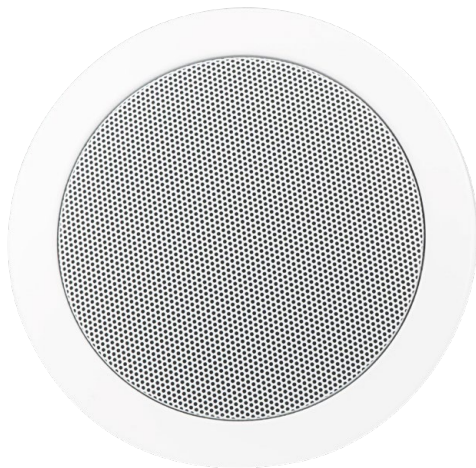
## SIP CEILING LOUDSPEAKER

- ✓ *Easy and quick to mount*
- ✓ *Modern and elegant design*
- ✓ *High quality sound of both speech and music*



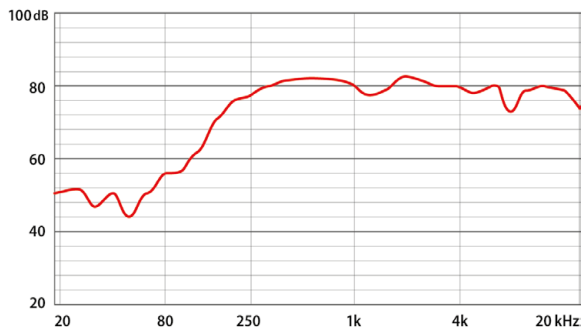
The ABT-S206S is SIP ceiling loudspeaker with built-in amplifier. It has been designed to guarantee the highest acoustic parameters. The loudspeaker is an ideal solution for rooms where aesthetic factors play a significant role.

It can be powered by PoE that allows to easily connect it to existing local area networks using one CAT5 / CAT6 cable connection. It is an ideal choice for applications in security systems, industrial and commercial systems.

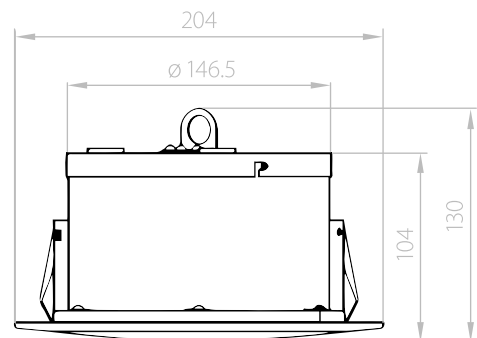
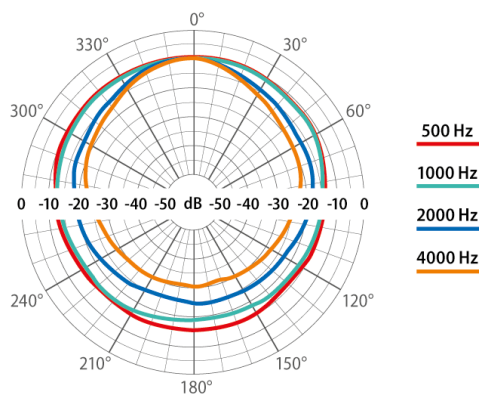


<b>ABT-S206S</b>	
<b>Electrical</b>	
Rated power	6 W
Network interface	10/100BASE-TX, RJ45
Power supply	DC 12–24 V or POE
Decoding mode	Max. 48 kHz, 320 kbps audio stream, support MP3, G.711 a/u, G.722. min. delay: 50 ms
Effective frequency range	120 Hz – 20 000 Hz
Dispersion at 1 kHz	180°
SPL (6W @ 1 m)	99 dB
<b>Environmental</b>	
IP rating	IP32
Min./max. ambient temperature	-20°C / 55°C
<b>Mechanical</b>	
Dimensions	Height 130 mm, ø 204 mm
Net Weight	1,1 kg
Colour	White (RAL 9003)
Material	Steel
Mounting	Spring clamp
<b>Accessories</b>	
Power supply	12VDC / 2 A / 24W

Frequency band:



Circular chart of directional characteristic:



# ABT-W6S

## SIP WALL-MOUNTED LOUDSPEAKER

- ✓ *Easy and quick to mount*
- ✓ *Modern and elegant design*
- ✓ *High quality sound of both speech and music*
- ✓ *Ideal for on-wall or in-wall mounting*



The ABT-W6S is an elegant multi-function SIP loudspeaker with built-in amplifier. It has been designed to guarantee the highest acoustic parameters. Its solid casing offers an effective protection against acts of vandalism. The loudspeaker can be mounted either on a wall or on a ceiling.

Additionally, the ABT-W6S loudspeaker can be fixed as a recessed speaker and therefore it is an ideal solution for rooms where aesthetic factors play a significant role.





**ABT-W6S**

**Electrical**

Rated power	6 W
Network interface	10/100BASE-TX, RJ45
Power supply	DC 12–24 V or POE
Decoding mode	Max. 48 kHz, 320 kbps audio stream, support MP3, G.711 a/u, G.722. min. delay: 50 ms
Effective frequency range	120 Hz – 20 000 Hz
Dispersion at 1 kHz	180°
SPL (6W @ 1 m)	101 dB

**Environmental**

IP rating	IP32
Min./max. ambient temperature	-20°C / 55°C

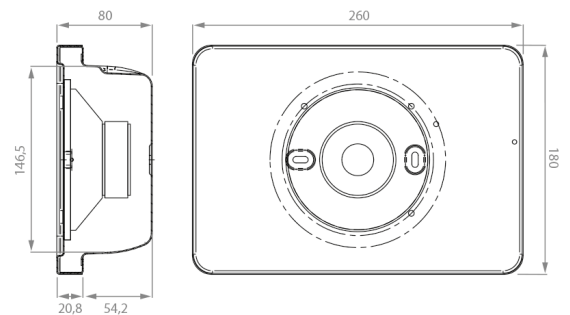
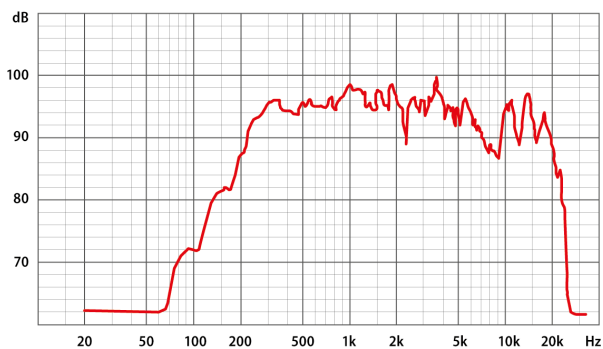
**Mechanical**

Dimensions	260 × 180 × 80 mm
Net weight	1,5 kg
Colour	White (RAL 9003)
Material	Steel
Mounting	Screw

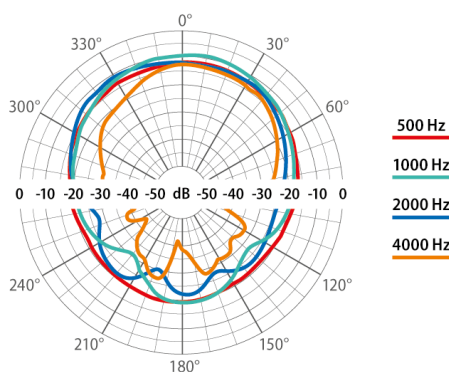
**Accessories**

Power Supply	12VDC / 2 A / 24W
--------------	-------------------

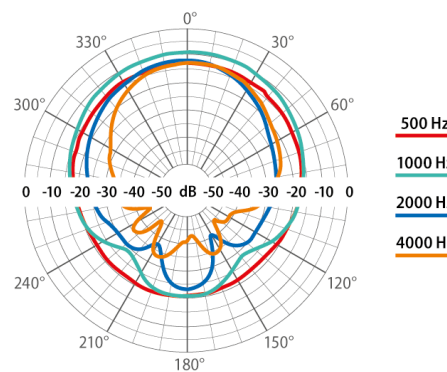
Frequency band:



Circular chart of directional characteristic – horizontal:



Circular chart of directional characteristic – vertical:



# ABT-T2515S

## SIP HORN LOUDSPEAKER WITH BUILT-IN 15 W AMPLIFIER

- ✓ High sound pressure level
- ✓ Aluminium housing
- ✓ Protection from dust and humidity:  
IP65 rating



ABT-T2515S is a SIP horn loudspeaker with a built-in 15 W amplifier. It can be powered by PoE that allows to easily connect it to existing local area networks using one CAT5/CAT6 cable connection. It is an ideal choice for applications in security systems,

industrial and commercial systems in both outdoor and indoor areas such as train stations, airports, parking lots, parks, gardens, corridors and much more. The high efficiency and directionality of the loudspeaker allow broadcasting voice messages

directly to even distant places, while ensuring a high sound pressure level. The aluminium housing guarantees increased resistance to adverse weather conditions provided by the IP65 rating.



**ABT-T2515S**

**Electrical**

Rated power of amplifier	15 W
Network interface	10/100BASE-TX, RJ45
Power supply	DC 12–24 V or POE
Decoding mode	Stereo playing, max. 48 kHz, 320 kbps audio stream, support MP3, WAV (PCM +IMA ADPCM), G.711 a/u, G.722., min. delay: 50 ms
Encoding mode	G.711a/u, G.722 and RTP mode, min. delay: 30 ms
Effective frequency range	350 Hz – 7 kHz
Dispersion at 1 kHz	110°
SPL (15W @ 1 m)	111 dB

**Environmental**

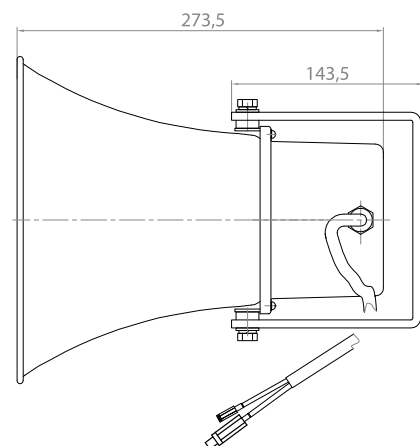
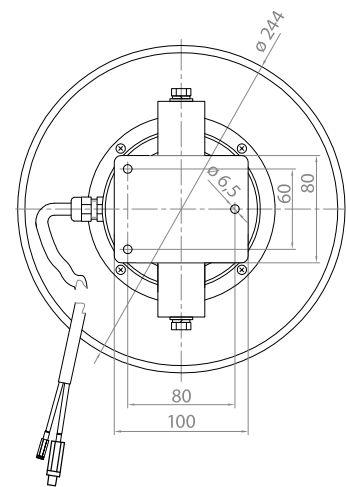
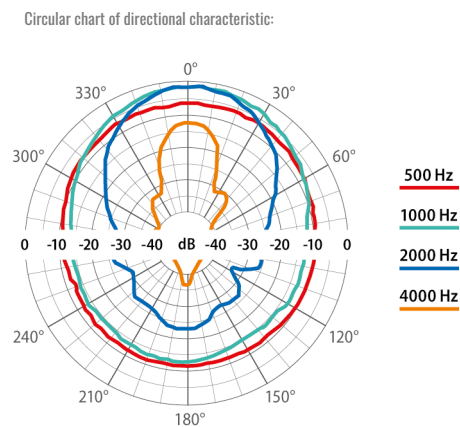
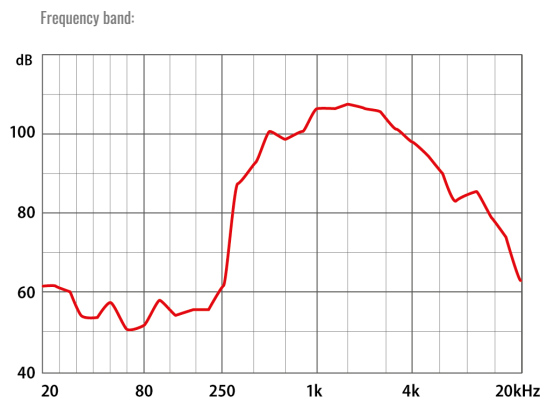
IP rating	IP65
Min./max. ambient temperature	-20°C / 55°C

**Mechanical**

Dimensions	250 × 320 mm
Net weight	2,3 kg
Colour	Light grey (RAL 7035)
Material	Aluminium
Mounting	U type bracket

**Accessories**

Power Supply	12VDC / 2 A / 24W
--------------	-------------------



# ABT-W6W/PA

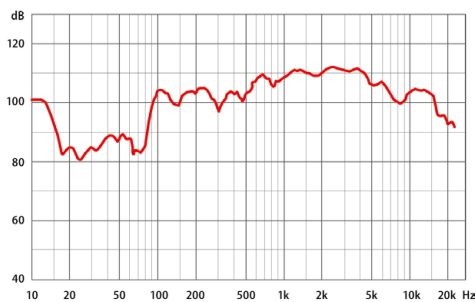
## WALL-MOUNTED LOUDSPEAKER

- ✓ *Easy and quick to mount*
- ✓ *Modern and elegant design*
- ✓ *High quality sound of both speech and music*
- ✓ *Ideal for wall installation*
- ✓ *6 W transformer with multiple tapings ensuring accurate selection of output power*

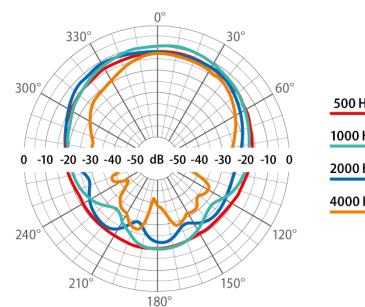


		ABT-W6W/PA
<b>Electrical</b>		
Rated power, W		6
Tappings 100 V line according to EN 54-24, W		6 / 3 / 1,5 / 0,75
Tappings 70 V line, W		3 / 1,5 / 0,75 / 0,37
Effective frequency range, Hz		130–20 000
SPL @ 1 m, 1 W, dB		90
SPL @ 1 m, rated power, dB		96
Horizontal dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]		320 / 160 / 95 / 70
Vertical dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]		290 / 140 / 100 / 70
<b>Environmental</b>		
IP rating		32
Min./max. ambient temperature		-10°C / 55°C
<b>Mechanical</b>		
Dimensions, mm		254 × 196 × 78
Net weight, kg		1,8
Colour		White (RAL 9003)
Material		MDF
Mounting		Screw

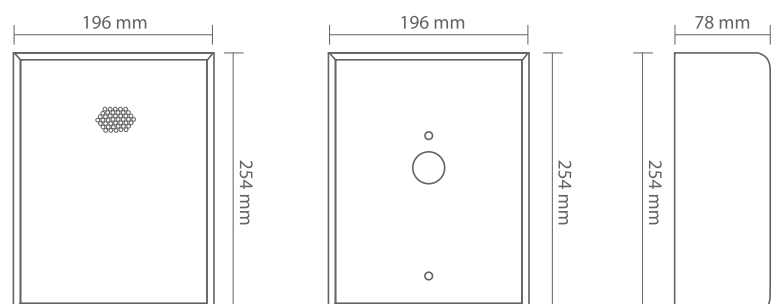
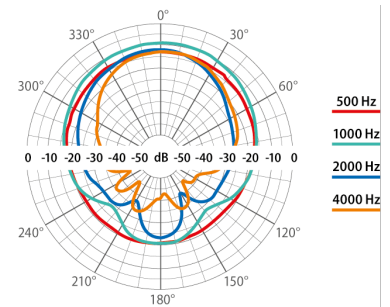
Frequency band:



Circular chart of directional characteristic – horizontal:



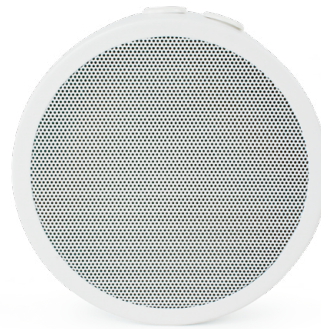
Circular chart of directional characteristic – vertical:



# ABT-SW176/PA

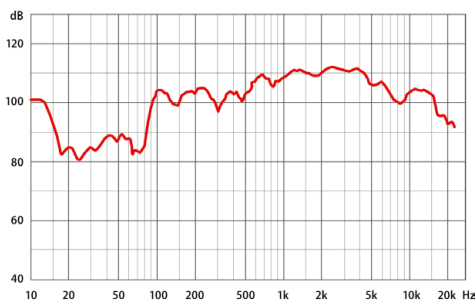
## SURFACE MOUNTED LOUDSPEAKER

- ✓ *Easy and quick to mount*
- ✓ *Modern and elegant design*
- ✓ *High quality sound of both speech and music*
- ✓ *Ideal for on-wall or on-ceiling mounting*
- ✓ *6 W transformer with multiple branches ensuring accurate selection of output power*
- ✓ *Available in white and black*

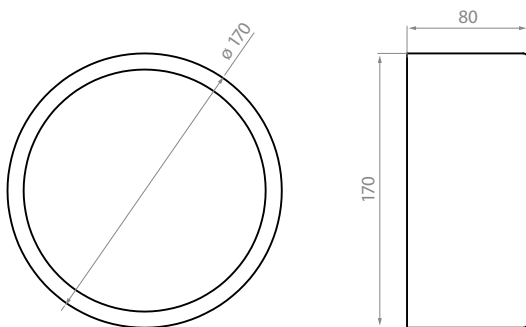
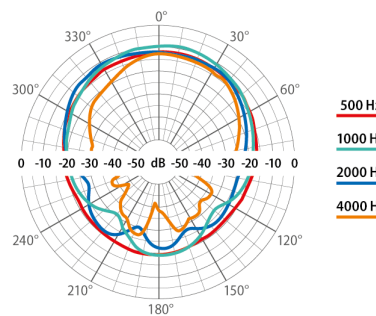


		ABT-SW176/PA
<b>Electrical</b>		
Rated power, W		6
Tappings 100 V line, W		6 / 3 / 1,5 / 0,75
Tappings 70V line, W		3 / 1,5 / 0,75 / 0,37
Effective frequency range, Hz		130–20 000
SPL @ 1 m, 1 W, dB		91
SPL @ 1 m, rated power, dB		97
Dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]		180 / 180 / 90 / 65
<b>Environmental</b>		
IP Rating		32
Min./max. ambient temperature		-10°C / 55°C
<b>Mechanical</b>		
Dimensions, mm		Height 80, ø 170
Net weight, kg		1,2
Colour		White (RAL 9003) / Black (RAL 9011)
Material		Steel
Mounting		Screw

Frequency band:



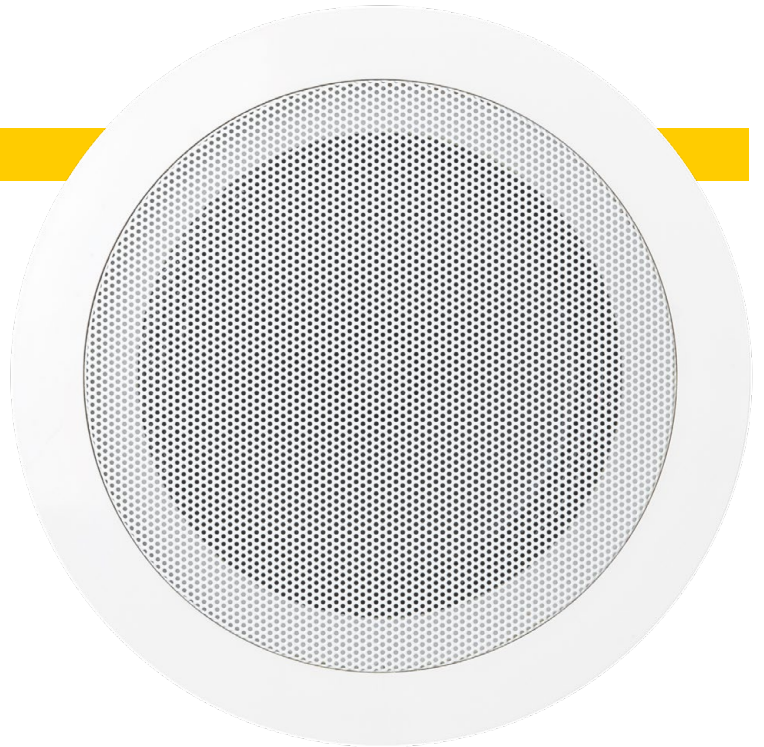
Circular chart of directional characteristic:



# ABT-S186/PA

## CEILING-MOUNTED LOUDSPEAKERS

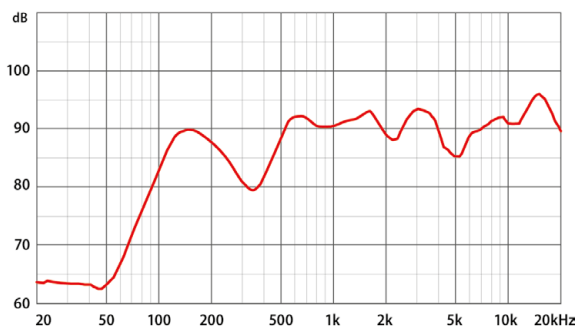
- ✓ *The highest level of speech intelligibility*
- ✓ *Elegant design*
- ✓ *6 W transformer allowing a precise selection of loudspeaker output power*



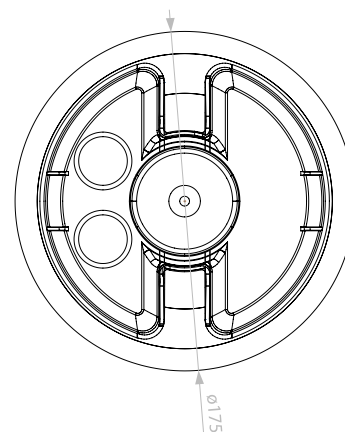
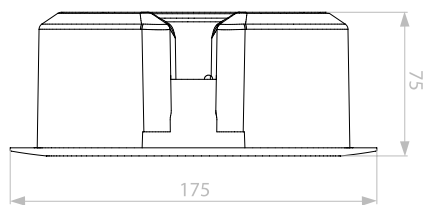
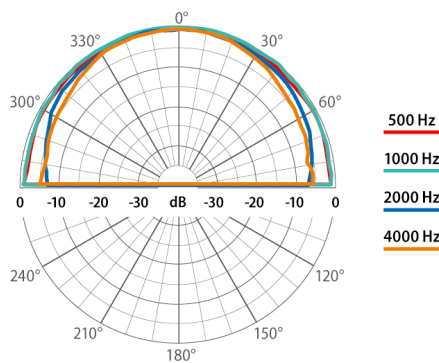


		ABT-S186/PA
<b>Electrical</b>		
Rated power, W		6
Tappings 100 V line, W		6 / 3 / 1,5 / 0,75
Tappings 70 V line, W		3 / 1,5 / 0,75 / 0,37
Effective frequency range, Hz		120 – 20 000
SPL @ 1 m, 1 W, dB		91
SPL @ 1 m, rated power, dB		99
Dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]		180 / 180 / 150 / 90
<b>Environmental</b>		
IP rating		32C
Min./max. ambient temperature		-10°C / 55°C
<b>Mechanical</b>		
Dimensions, mm		Height 75, ø 175
Net weight, kg		0,66
Colour		White (RAL 9003)
Material		ABS
Mounting		Spring clamp
Cut-out, mm		ø 150

Frequency band:



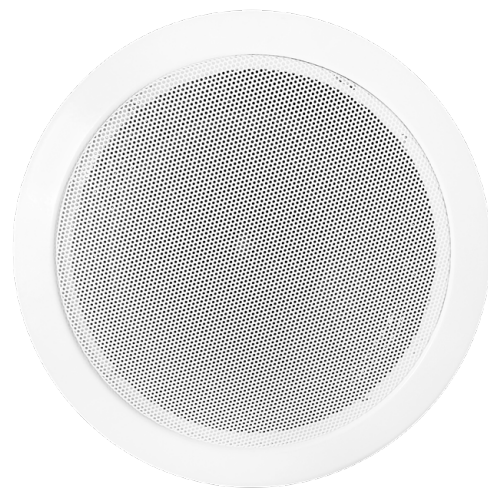
Circular chart of directional characteristic:



# ABT-S206B/PA

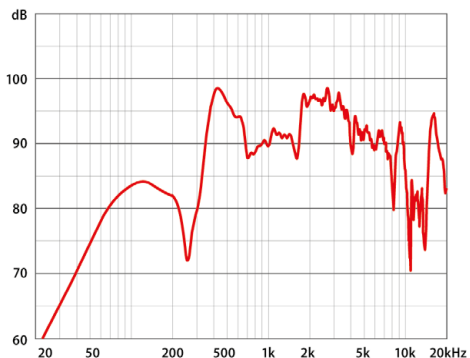
## CEILING-MOUNTED LOUDSPEAKERS

- ✓ *The highest level of speech intelligibility*
- ✓ *Elegant design*
- ✓ *6 W transformer allowing a precise selection of loudspeaker output power*
- ✓ *100% protection of line from breaks and short-circuits*
- ✓ *Available in white and black*

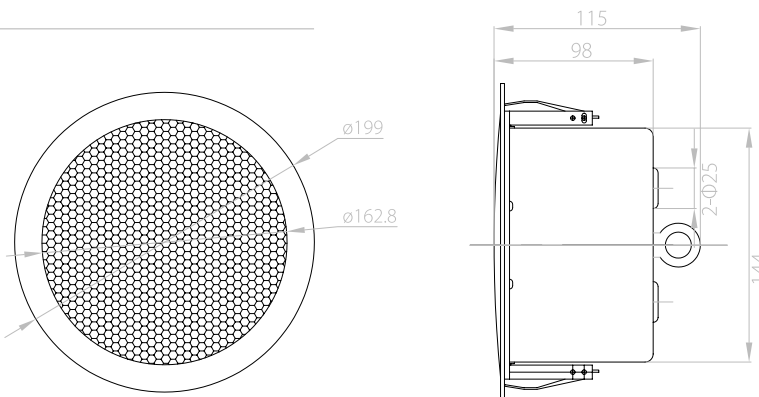
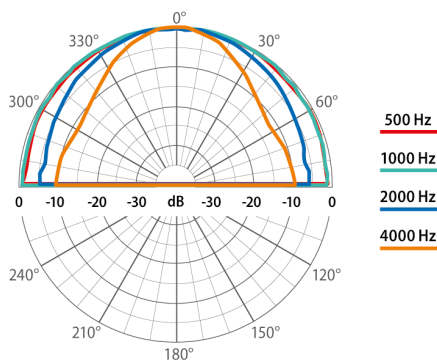


		ABT-S206B/PA
<b>Electrical</b>		
Rated power, W		6
Tappings 100 V line, W		6 / 3 / 1,5 / 0,75
Tappings 70 V line, W		3 / 1,5 / 0,75 / 0,37
Effective frequency range, Hz		120 – 20 000
SPL @ 1 m, 1 W, dB		93
SPL @ 1 m, rated power, dB		101
Dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]		180 / 180 / 95 / 70
<b>Environmental</b>		
IP rating		32C
Min./max. ambient temperature		-10°C / 55°C
<b>Mechanical</b>		
Dimensions, mm		Height 115, ø199
Net weight, kg		1,13
Colour		White (RAL 9003) / Black (RAL 9011)
Material		Steel
Mounting		Spring clamp
Cut-out, mm		ø175

Frequency band:



Circular chart of directional characteristic:



# ABT-P10/PA/ABT-P10P/PA

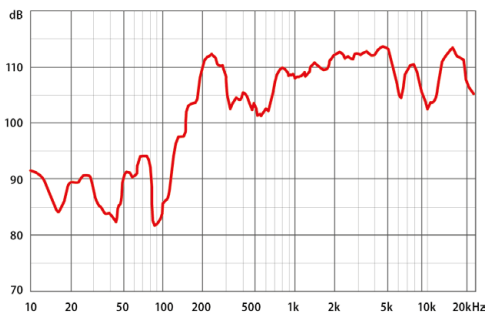
## SOUND PROJECTORS

- ✓ *Designed to achieve directional characteristic of sound emission*
- ✓ *10 W transformer with multiple branches ensuring accurate selection of output power*
- ✓ *Enclosed in an advance and functional cylindrical casing made of resistant and durable ABS*
- ✓ *Ideal for either ceiling or wall installation*
- ✓ *High sound quality in music and speech emission*

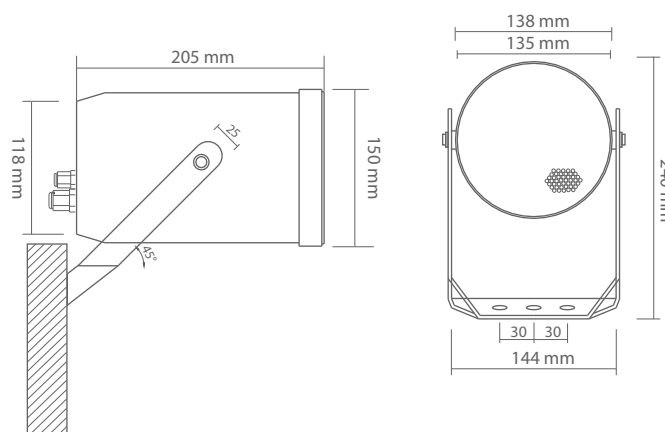
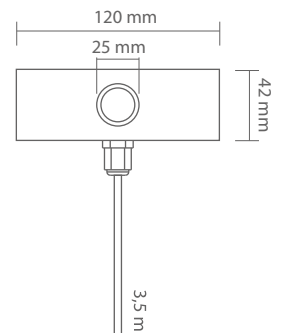
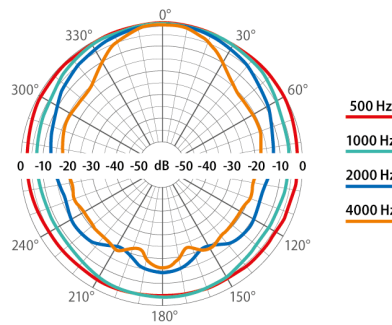


	ABT-P10/PA	ABT-P10P/PA
<b>Electrical</b>		
Rated power, W	10	
Tappings 100 V, W	10 / 5 / 2,5 / 1,25	
Tappings 70V line, W	5 / 2,5 / 1,25 / 0,625	
Effective frequency range, Hz	130 – 20000	
SPL @ 1 m, 1 W, dB	92	
SPL @ 1 m, rated power, dB	100	
Dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]	360 / 210 / 120 / 65	
<b>Environmental</b>		
IP rating	66	
Min./max. ambient temperature	-25°C / 70°C	
<b>Mechanical</b>		
Dimensions, mm	Length 205, ø 135	
Net weight, kg	1,6	2
Colour	White (RAL 9003)	
Material	ABS	
Mounting	Screw, U type bracket	Screw, pendant

Frequency band:



Circular chart of directional characteristic:



# ABT-P20/PA / ABT-P20P/PA

## SOUND PROJECTORS

- ✓ *Designed to achieve directional characteristic of sound emission*
- ✓ *20 W transformer with multiple branches ensuring accurate selection of output power*
- ✓ *Enclosed in an advance and functional cylindrical casing made of extruded aluminium*
- ✓ *Ideal for either ceiling or wall installation*
- ✓ *High sound quality in music and speech emission*



### ABT-P20/PA

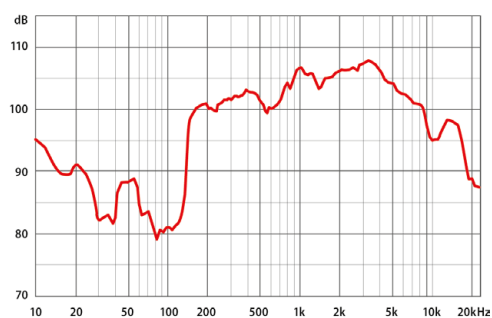


### ABT-P20P/PA

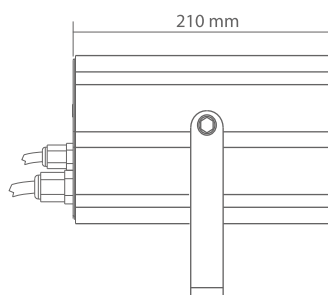
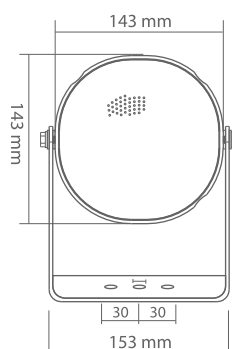
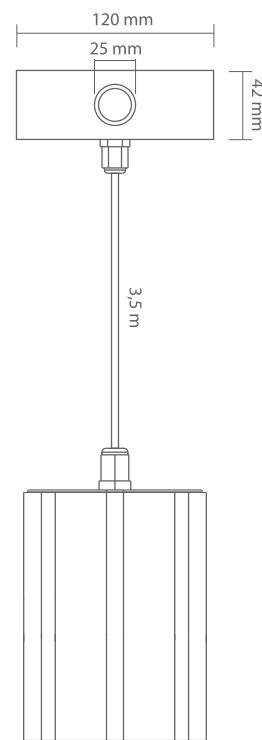
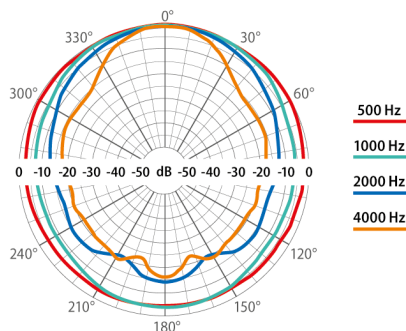


	ABT-P20/PA	ABT-P20P/PA
<b>Electrical</b>		
Rated power, W	20	
Tappings 100 V, W	20 / 10 / 5 / 2,5	
Tappings 70V line, W	10 / 5 / 2,5 / 1,25	
Effective frequency range, Hz	130 – 20000	
SPL @ 1 m, 1 W, dB	91	
SPL @ 1 m, rated power, dB	102	
Dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]	360 / 230 / 110 / 65	
<b>Environmental</b>		
IP rating	66	
Min./max. ambient temperature	-25°C / 70°C	
<b>Mechanical</b>		
Dimensions, mm	Length 210, ø 143	
Net weight, kg	2,4	2,8
Colour	White (RAL 9003)	
Material	Aluminium	
Mounting	Screw, U type bracket	Screw, pendant

Frequency band:



Circular chart of directional characteristic:



# ABT-T1410/PA / ABT-T2015/PA

## HORN-TYPE LOUDSPEAKERS

- ✓ *Directional characteristic of sound emission and the highest verbal communication understanding*
- ✓ *Wall and ceiling installation*
- ✓ *Protection from dust and humidity: IP66 rating*



ABT-T2015/PA



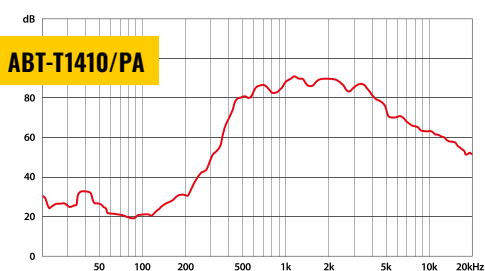
ABT-T1410/PA





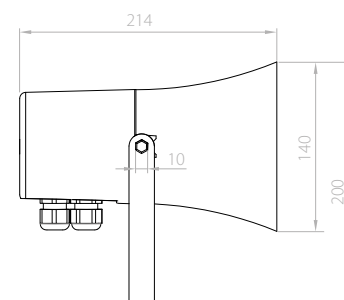
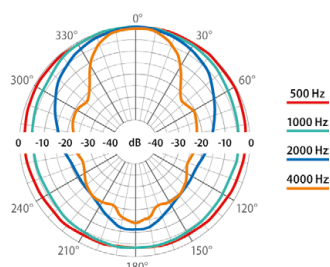
	ABT-T1410/PA	ABT-T2015/PA
<b>Electrical</b>		
Rated power, W	10	15
Tappings 100 V line, W	10 / 5 / 2,5 / 1,25	15 / 7,5 / 3,75 / 1,87
Tappings 70 V line, W	5 / 2,5 / 1,25 / 0,62	7,5 / 3,75 / 1,87 / 0,94
Effective frequency range, Hz	400-6300	400-8000
SPL @ 1 m, 1 W, dB	93	99
SPL @ 1 m, rated power	101	109
Dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]	360 / 355 / 97 / 54	360 / 132 / 68 / 33
<b>Environmental</b>		
IP rating	66	
Min./max. ambient temperature	-25 °C / 70 °C	
<b>Mechanical</b>		
Dimensions, mm	Length 214, ø 140	Length 258, ø 200
Net weight, kg	1,2	1,5
Colour	Light grey (RAL 7035)	
Material	ABS	
Mounting	Screw, U type bracket	

Frequency band:

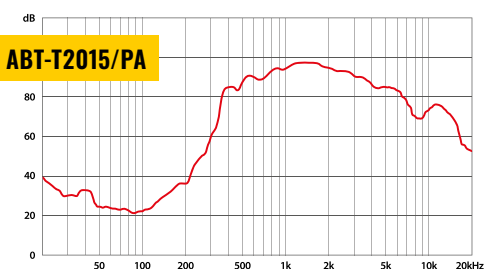


**ABT-T1410/PA**

Circular chart of directional characteristic:

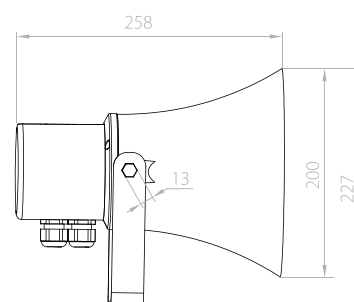
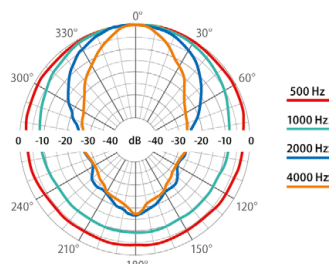


Frequency band:



**ABT-T2015/PA**

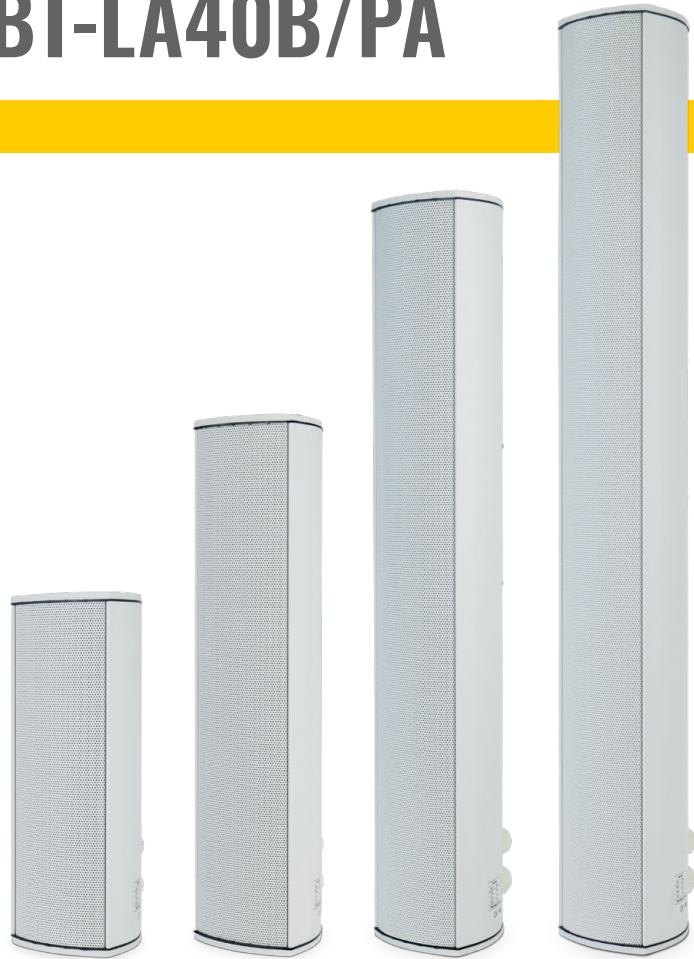
Circular chart of directional characteristic:



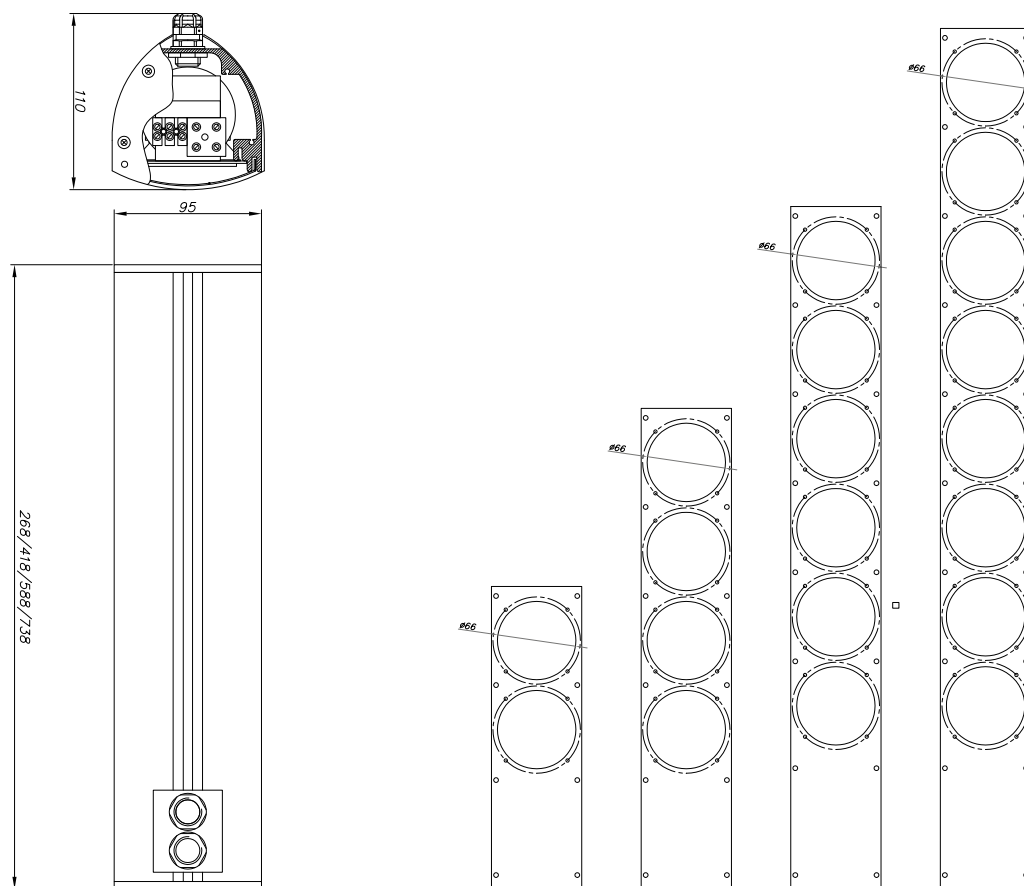
# ABT-LA10B/PA/ABT-LA20B/PA ABT-LA30B/PA/ABT-LA40B/PA

## LINE ARRAY LOUDSPEAKERS COLUMNS

- ✓ *Easy and quick installation*
- ✓ *High sound quality of both speech and music*
- ✓ *Highest level of speech intelligibility*
- ✓ *Ideal for mounting on a ceiling, wall or pole.*
- ✓ *Two cable inputs insulated with glands*
- ✓ *Weatherproof housing IP65*
- ✓ *For indoor and outdoor applications*



	ABT-LA10B/PA	ABT-LA20B/PA	ABT-LA30B/PA	ABT-LA40B/PA
<b>Electrical</b>				
Rated power, W	10	20	30	40
Tappings 100 V line, W	10 / 5 / 2,5	20 / 10 / 5	30 / 15 / 7,5	40 / 20 / 10
Tappings 70 V line, W	5 / 2,5 / 1,25	10 / 5 / 2,5	15 / 7,5 / 3,75	20 / 10 / 5
Effective frequency range, Hz	150 – 15000*	150 – 15000*	150 – 15000*	150 – 15000*
SPL @ 1 m, 1 W, dB	90	91	93	92
SPL @ 1 m, Rated power, dB	99	104	106	108
Horizontal dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]	360 / 190 / 140 / 120	360 / 190 / 140 / 120	360 / 190 / 140 / 120	360 / 180 / 130 / 110
Vertical dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]	360 / 96 / 42 / 24	260 / 68 / 34 / 20	104 / 66 / 28 / 14	52 / 28 / 11 / 2
<b>Environmental</b>				
IP rating	IP65			
Min. / max. ambient temperature	-25°C / 55°C			
<b>Mechanical</b>				
Dimensions, mm	95 × 345 × 100	95 × 408 × 100	95 × 519 × 100	95 × 946 × 100
Colour	Light gray (RAL 7035)			
Material	Aluminium			
Impact Protection	IK07			
Mounting	Mounting screws, mounting bracket			





*We make everyday life safer*

*Ambient System products are continually improved. All specifications are therefore subject to change without prior notice.*

EN / 03.2024