



PASSENGER INFO SYSTEMS

Product Range

Sound solutions for train stations
and passenger transportation



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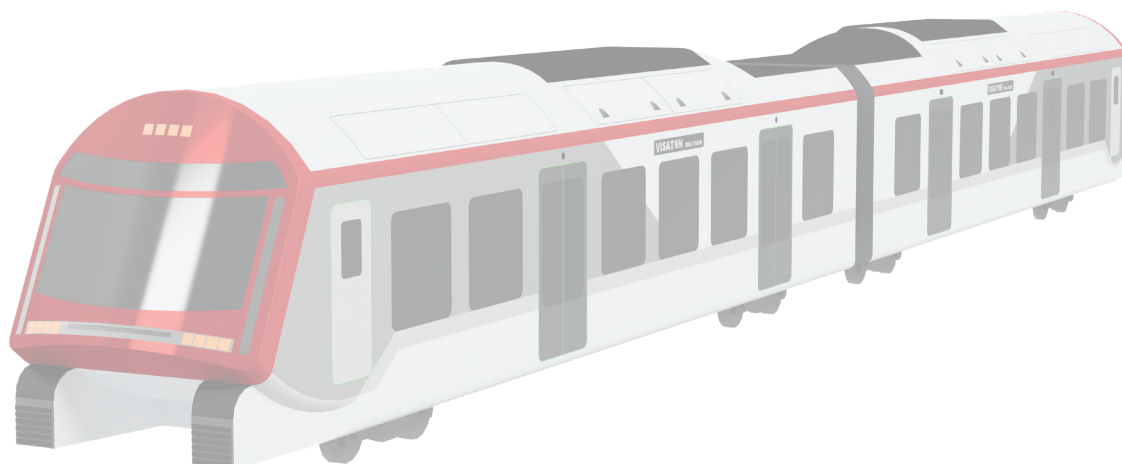
Product Range

Passenger Info System (PIS)

Introduction

Passenger Information Systems (PIS), also known as FIS in German-speaking markets, are communication and information systems used in buses, trains, metros, stations and terminals to provide passengers with real-time travel information. These systems combine visual displays with audio announcements delivered through public address and loudspeaker systems. Typical information

includes route and destination details, next-stop announcements, connection information, delays, service disruptions and safety messages. In the loudspeaker and public address industry, PIS applications are essential for ensuring clear, reliable, and intelligible communication with passengers in both normal operation and emergency situations.



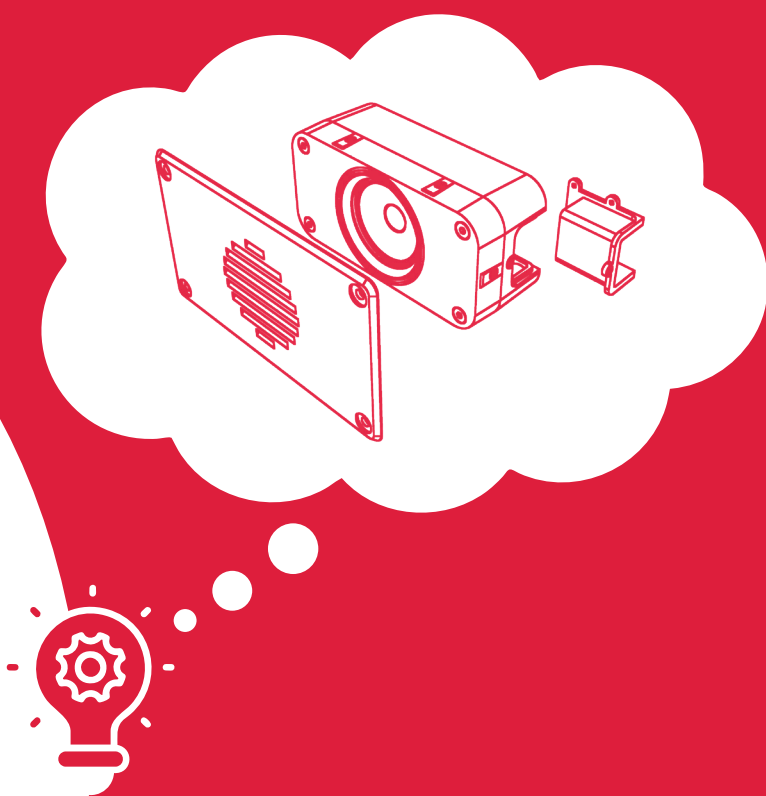
O
E
M

Original Equipment Manufacturer

Individual requirements are our speciality – we can adapt our loudspeakers to all necessary conditions.

If you can not find the right item in this catalogue, we will modify an existing model or develop a new item to meet your requirements.

**We will find a
suitable and sonically
outstanding solution
for every application
– including yours!**



Why Visaton?

- **Broad vertical integration:**

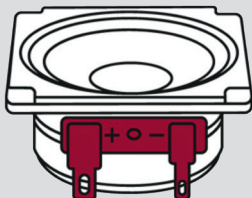
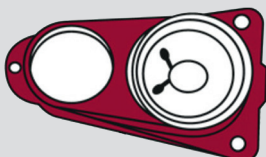
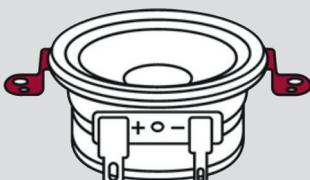
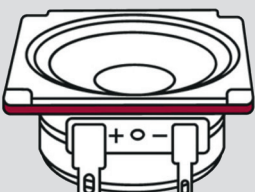
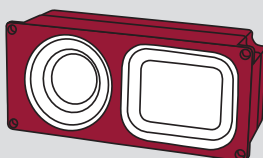
From sample production during development to series production – everything from a single source.

- **Technical expertise:**

Consulting, enclosure design and acoustic simulation from a single source.

- **Flexibility & reliability:**

Fast response times, transparent project planning and compliance with high quality standards (ISO 9001).

			
different seal	different terminal	round basket	special frame
			
method of fixing	additional seal	round basket, wiring	housing

Contact

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DK 121

IP 66

IP 67

-40
+85
°C

Built-in horn speaker - low profile. Waterproof design with an impedance of 8 ohms. Housing made of black lacquered aluminium, horns made of plastic. High IP protection class, high sound pressure and good voice reproduction. Ideal for inconspicuous installation due to the very compact dimensions, e.g. in vehicles. The potential equalisation connection is by means of an M6 grub screw (including two screws, lock washer and shake-proof washer, maximum fastening torque 2 Nm) on the rear of the housing. The connection is via a two-core, sheathed flexible cable (250 cm) with insulated flat pin terminals (4.8/0.8 and 2.8/0.8 mm).

More options available.

Impedance:	8 Ohm	100 V
Art. No.:	50231	50232



DK 121 AN - 8 Ohm

Art. No.: 50227

IP 66

IP 67

-40
+85
°C

Built-in horn speaker - low profile. Waterproof design with an impedance of 8 ohms. Housing made of black lacquered aluminium, horns made of plastic. High IP protection class, high sound pressure and good voice reproduction. Ideal for inconspicuous installation due to the very compact dimensions, e.g. in vehicles. The potential equalisation connection is by means of an M6 grub screw (including two screws, lock washer and shake-proof washer, maximum fastening torque 2 Nm) on the rear of the housing. Connector M12, D-Coding.



DK 97 - 8 Ohm

Art. No.: 50210

IP 67

-40
+110
°C

Horn Speaker with waterproof design and 8 Ohm impedance. High IP protection class, high sound pressure level, good voice reproduction, compact dimensions. Connection: Open wire.



DK 97 EB - 8 Ohm

Art. No.: 50212

IP 65

IP 67

-40
+80
°C

Build-in Horn Speaker with waterproofed design and 8 Ohm impedance. High IP protection class, high sound pressure level, good voice reproduction, compact dimensions. The loudspeaker fulfils all important standards from the train sector, such as EN50155, EN45545 or EN61373. These include temperature and humidity standards, IP67, vibration and shock tests and fire tests.



DK 97 W - 8 Ohm

Art. No.: 50218

IP 67

-40
+100
°C

Horn Speaker with waterproofed design and 8 Ohm impedance. High IP protection class, high sound pressure level, good voice reproduction, compact dimensions. Connection: M12.

More options available.



BG 13 P - 8 Ohm

Art. No.: 3011

13 cm (5") fullrange speaker with tweeter dome. Very evenly spread frequency response and excellent voice reproduction quality. High level of efficiency. For use in larger scale PA arrays or in smaller monitor speakers.



FR 12

13 cm (5") fullrange speaker system with inverted surround. Very compact design making this the ideal choice where space is at a premium.



Impedance:	4 Ohm	8 Ohm
Art. No.:	2060	2061

Accessory:

GRILLE FR 12

Art. No.: 2062

Protective grille made of black painted metal. Decoration ring made of black plastics. Can be supplied painted in other colours on request. Suitable for: FR 12.



FR 10 WP

Saltwater resistant 10 cm (4") fullrange driver with moulded plastic cone, plastic basket and grille. Absolutely corrosion-resistant and waterproof due to encased magnet. Clear-cut high-range output.



Colour:	White	Black
Impedance:	4 Ohm	4 Ohm
Art. No.:	2110	2130



FR 9.15 - 4 Ohm

Art. No.: 2054

9 x 15 cm (4" x 6") fullrange driver. Balanced frequency response makes this speaker ideal for both voice and music reproduction e.g. extremely well suited to use in vehicles. Minimum depth required.



Accessory:

GRILLE FR 9.15

Art. No.: 4745



Accessory:

GRILLE 4x6

Art. No.: 4645



FR 7.12 - 8 Ohm

Art. No.: 2058

Oval 7 x 12 cm (2.8" x 4.7") fullrange speaker with high efficiency and balanced frequency response. Well suitable for speech reproduction.



FRS 10 WP

10 cm (4") fullrange speaker with glas fibre cone, plastic basket and grille. Balanced frequency response, high efficiency and good high-midrange reproduction. Due to the combination of resistant materials, it is very well suited for indoor and outdoor applications where high robustness is required.



Colour:	White	White	Black	Black
Impedance:	4 Ohm	8 Ohm	4 Ohm	8 Ohm
Art. No.:	2102	2103	2100	2101



FRS 8

8 cm (3.3") HiFi fullrange driver. Linear frequency response between 100 and 20.000 Hz. Suitable for surround effect speakers, mini sub/sat systems. Due to the small size very suitable for model construction and as control speaker for electronic devices.



Impedance:	4 Ohm	8 Ohm
Art. No.:	2003	2004

Accessory:

GRILLE FRS 8

Art. No.: 1138

Protective grille made of black painted metal. Decoration ring made of black plastics. Can be supplied painted in other colours on request. Plastics: PC-110 (UL 94: V-2). Suitable for: FR 8, FRS 8, F 8 SC, FRS 8 M, FR 8 JS.



Accessory:

GRILLE 8 ES

Art. No.: 4634

Protective grille made of black painted metal. Decoration ring made of black plastics. Can be supplied painted in other colours on request. Plastics: PC-110 (UL 94: V-2). Suitable for: FR 8, FRS 8, F 8 SC, FRS 8 M, FR 8 JS.





FRS 7

6.5 cm (2.5") fullrange speaker with balanced frequency response and very good highs. Especially suitable as built-in speaker for music reproduction and as driver for 100 V network column speakers. Very low resonance frequency.

Impedance:	4 Ohm	8 Ohm
Art. No.:	2011	2012



Accessory:

GRILLE FRS 7

Art. No.: 2312

Protective grille made of black painted metal. Decoration ring made of black plastics. Can be supplied painted in other colours on request. Plastics: ABS
Suitable for: FRS 7, FRS 7 S, FRS 7 W, FR 7



R 10 S - 8 Ohm

Art. No.: 2037

10 cm (4") fullrange speaker with high efficiency and balanced frequency response. Especially suitable as control speaker for electronic devices.
More options available.



Accessory:

DIFFERENT GRILLES

Article:	Grille 10 ES	Grille 10 PL	Grille 10 RS	Grille 10 R/134	Grille 10 R/134 (black/chrome)
Art. No.:	4642	4744	4640	4670	4770

Accessory grille for R 10 S.

Painting available. More options available.

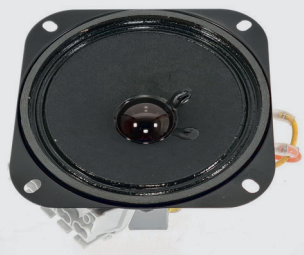


R 10 SN - 32 Ohm

Art. No.: 2111

10 cm (4") fullrange speaker with high efficiency and balanced frequency response. Especially suitable as control speaker for electronic devices.





R 10 S-TR - 100 V

Art. No.: 2039

10 cm (4") fullrange speaker with 100 V transformer. High efficiency and balanced frequency response, very good speech intelligibility.



SL 87 FS - 8 Ohm

Art. No.: 2394

8 cm (3.1") fullrange speaker with plastic cone and ferrite magnet. Very flat design, optimized for good voice and signal quality in public transport.



SL 87 ND

Art. No.: 2086

8.5 cm (3.4") fullrange speaker with plastic cone and rubber surround. Low weight due to neodymium magnet. Very high efficiency and well-balanced frequency response.
More options available.



Transformers



TR 10.16

Art. No.: 1803

100 V transformer for loudspeakers.
More options available.

Exciter



EX 60 S

Electro dynamical exciter for stimulating bending waves on plates. The unit can be attached to the surface of the plate by gluing or screwing. **Gluing pad available.**



Impedance:	4 Ohm	8 Ohm
Art. No.:	4536	4506

Exterior Speakers



EX 45 S

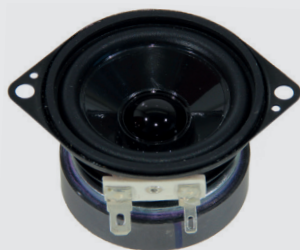
Electro dynamical exciter for stimulating bending waves on plates. The unit can be attached to the surface of the plate by gluing or screwing. **Gluing pad available.**



Impedance:	4 Ohm	8 Ohm
Art. No.:	4503	4501

Interior Speakers

Small Speakers



FRS 5 XWP - 8 Ohm

Art. No.: 2236

5 cm (2") fullrange speaker with black metal basket and two fixing lugs. Due to its low resonant frequency, the frequency response already starts at 120 Hz. Suitable as full- or midrange driver in speaker systems for HiFi-, small PA- and 100 V-PA systems. Thanks to the slim construction, also suitable as a control speaker in electronic devices.



K 64 WP - 8 Ohm

Art. No.: 2918

6.4 cm (2.5") full-range speaker with a plastic basket and plastic diaphragm. Broad frequency response and good voice reproduction. Particularly well suited to outdoor applications and where ambient conditions are generally unfavourable (e.g. high humidity).

More options available.



K 50 SQ - 8 Ohm

Art. No.: 2897

5 cm (2") miniature speaker with plastic diaphragm, square metal basket with 4 mounting holes and foam gasket. 2.8 x 0.5 mm contact pin. Thanks to its compact dimensions, suitable for signal output in machines and other equipment where space is at a premium.



Various Speakers

Stations

Stations

A key objective of public address systems in railway stations is to ensure that every message relating to railway operation and in emergencies is clearly audible to all travellers at the target location in the station. DIN EN 60268-16 sets ambitious standards for speech intelligibility because the acoustic environment on railway platforms is a difficult one.

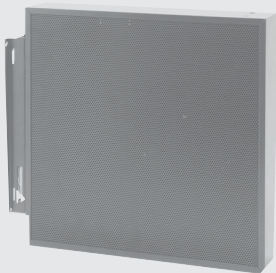
- Trains arriving and leaving generate very loud ambient noises and require the loudspeakers to have a correspondingly high loudness level
- Announcements on adjacent platforms make other announcements unintelligible unless the sound is properly and effectively restricted to the required target area
- Sound reverberating from the sound-reflecting ceilings and walls in enclosed station buildings generates interference noise that makes the announcement hard to understand.

The passive train station loudspeakers made by VISATON will, however, allow the required speech

intelligibility to be achieved, despite the difficult surroundings. These speakers are dipole flat-panel speakers, and provide the required high levels of sound pressure while focussing the sound they produce more accurately than classic speaker systems.

A dipole speaker works by creating air movement (as sound pressure waves) directly from the front and back surfaces of the driver, while the amount of sound emitted to the sides, up and down is much reduced. An arrangement of several loudspeakers in line or in a single plane results in an even more closely focussed sound image. By combining these two principles, VISATON has achieved a targeted improvement in the polar characteristics of loudspeaker systems.

Thanks to this principle, the platform in front of and behind the loudspeaker is addressed and the adjacent platforms hardly hear any of it. The sound also hardly reaches the ceiling and floor so interfering reverberations that would reduce speech intelligibility are reduced.

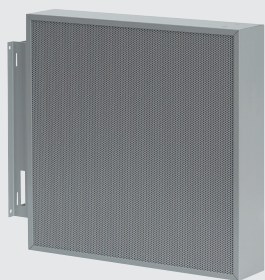


DPS 40 F - 100 V (RAL 9006)

The **DPS 40 F - 100 V dipole flat-panel loudspeaker** has been developed and optimised specifically for applications in the open-air with limited adjoining reflecting surfaces (such as ceilings). It focuses the sound to a great extent in a horizontal direction, so neighbours or adjacent station platforms only receive much reduced signals than would be the case with classic horn speakers. Sound field simulations coupled with measurements under real-life field conditions demonstrate that there is a difference in the level of interference noise to the sides of the platform of 6 to 8 dB in favour of dipole flat-panel speakers. At the same time, their efficiency is considerably higher, which means that typical horn speakers would require eight times the amplifier output to achieve the same sound pressure on a railway platform.

Other colours are available upon request.





DPS 40 EN - 100 V

Art. No.: 50291



The **DPS 40 EN dipole flat-panel loudspeaker** has been specifically developed to deal with particularly critical acoustic characteristics in rooms with high reverberation levels. In contrast to the similar model DPS 40 F, the loudspeakers of DPS 40 EN are arranged as a symmetrical array. The sound is sharply focused both in horizontal and vertical directions therefore. Because this loudspeaker is normally installed on a higher place (bottom edge about 3 m), there is a passive time delay element integrated to optimize the radiating direction at an angle of -10°. DPS 40 EN is a passive loudspeaker, so it will not require any power supply.



DPS 26 - 100 V

Art. No.: 50280



26 x 26 cm dipole flat-panel loudspeaker made of corrosion resistant aluminum with weather-proof equipment for outdoor use. The DPS 26 is a passive speaker without power supply, adapted for all applications of speech reproduction (e.g. announcements at railway stations, etc.). The optimized directivity pattern and focused sound radiation ensure perfect speech intelligibility while minimizing the disturbance of nearby areas (noise pollution). The clear design line with a square body, simple and variable mounting possibilities as well as thoughtful power taps on the 100 V transformer for easier adjustment complete the advantages.



UL 7 EN - 100 V

Art. No.: 50475



Cabinet-housed speaker for use in lighting systems. Stainless steel cabinet (V2A). Equipped with two 7 cm fullrange speakers and an 100 V transformer.

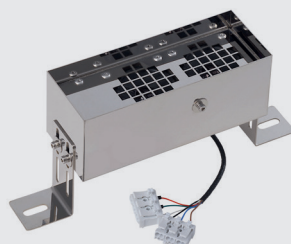


UL 7 FL EN - 100 V

Art. No.: 50484



Cabinet-housed speaker for use in lighting systems. Particularly flat design. Stainless steel cabinet (V2A). Equipped with two 7 cm fullrange speakers and an 100 V transformer.



UL 7 N - 100 V

Art. No.: 50471



Cabinet-housed speaker for use in lighting systems. Stainless steel cabinet (V2A). Equipped with two 7 cm fullrange speakers and an 100 V transformer.

Norm Overview

Norm	Description
DIN EN 50155	Railway applications - Rolling stock - Electronic equipment
DIN EN IEC 60068-2-11/-30/-78	Environmental testing: Cold; Dry heat; Salt mist; Damp heat, cyclic; Damp heat, steady state
DIN EN 45545	Railway applications - Fire protection on railway vehicles
DIN EN 61373	Railway applications - Rolling stock equipment - Shock and vibration tests
DIN EN 60529	Degrees of protection provided by enclosures (IP Code)
DIN EN ISO 2812-3	Paints and varnishes - Determination of resistance to liquids
IEC 62262	Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)
DIN EN 50125-1	Railway applications - Environmental conditions for equipment on board rolling stock
TSI-PRM Nr. 1300/2014	Commission Regulation (EU) on the technical specifications for inter-operability relating to accessibility of the Union's rail system for persons with disabilities and persons with reduced mobility
DIN EN IEC 60268-21/-22	Sound system equipment - Acoustical (output-based) measurements/ Sound system equipment: Electrical and mechanical measurements on transducers
DIN EN IEC 63034	Microspeaker
EN 54-24	Fire detection and fire alarm systems: Components of voice alarm systems - Loudspeakers
NFPA 130	Standard for fixed guideway transit and passenger rail systems



Glossary

Icons



Temperature range that the product will withstand without packing and applied signal.



Protective system



European standard that specifies the requirements, test methods, and performance criteria for loudspeakers.

Ingress Protection (IP)

„Ingress Protection“ shows the protection against the ingress of foreign material (1st digit) and water (2nd digit). The higher the number the higher the protection (DIN EN 60529).

For speakers with an open rear side the mentioned classes of protection are valid for the front side when built into a sealed enclosure (gluing of the loudspeaker and a front cover (grille) might be necessary).

Digit	Foreign materials	Water
0	no protection	no protection
1	> 50 mm Ø	vertical dripping
2	> 12,5 mm Ø	dripping (15°)
3	> 2,5 mm Ø	spray water
4	> 1,0 mm Ø	splash water
5	dust protected	water jet
6	dust-proof	powerful water jet
7	–	temporary immersion
8	–	permanent immersion
9	–	High-pressure and high-temperature water jet
X	not applicable	not applicable

Contact

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VISATON Imagefilm

Deutsch



English

