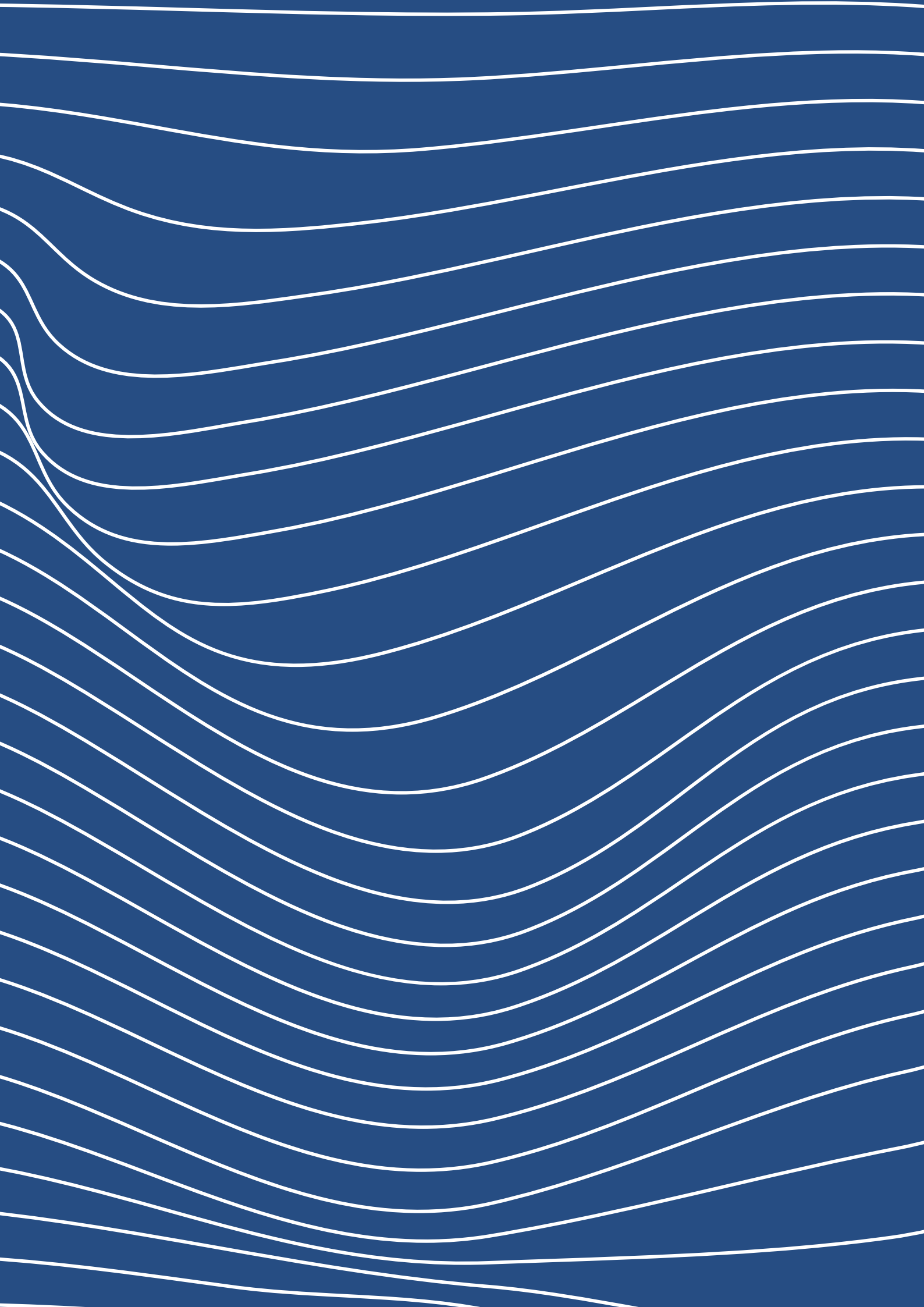


AUDIO & ROOM MANAGEMENT



LEONARDO MINI E MAXI

PRODUCTS EN54






AUDIO & ROOM MANAGEMENT

To **make big things**,
we have not only to **act**,
but also to **dream**:
not only to **design**,
but also to **create**.

More than
30 years' experience
in **public address**
and **room automation**
for accommodation
facilities.



The ITC world

Established in 1985, I.T.C. srl is dedicated to the **development, manufacturing and distribution** of premier audio and hotel room automation products. The endless search for new technologies, the constant control over quality of products and services provided, have made I.T.C. a leading company in the market of sound reinforcement, multimedia and building automation systems.

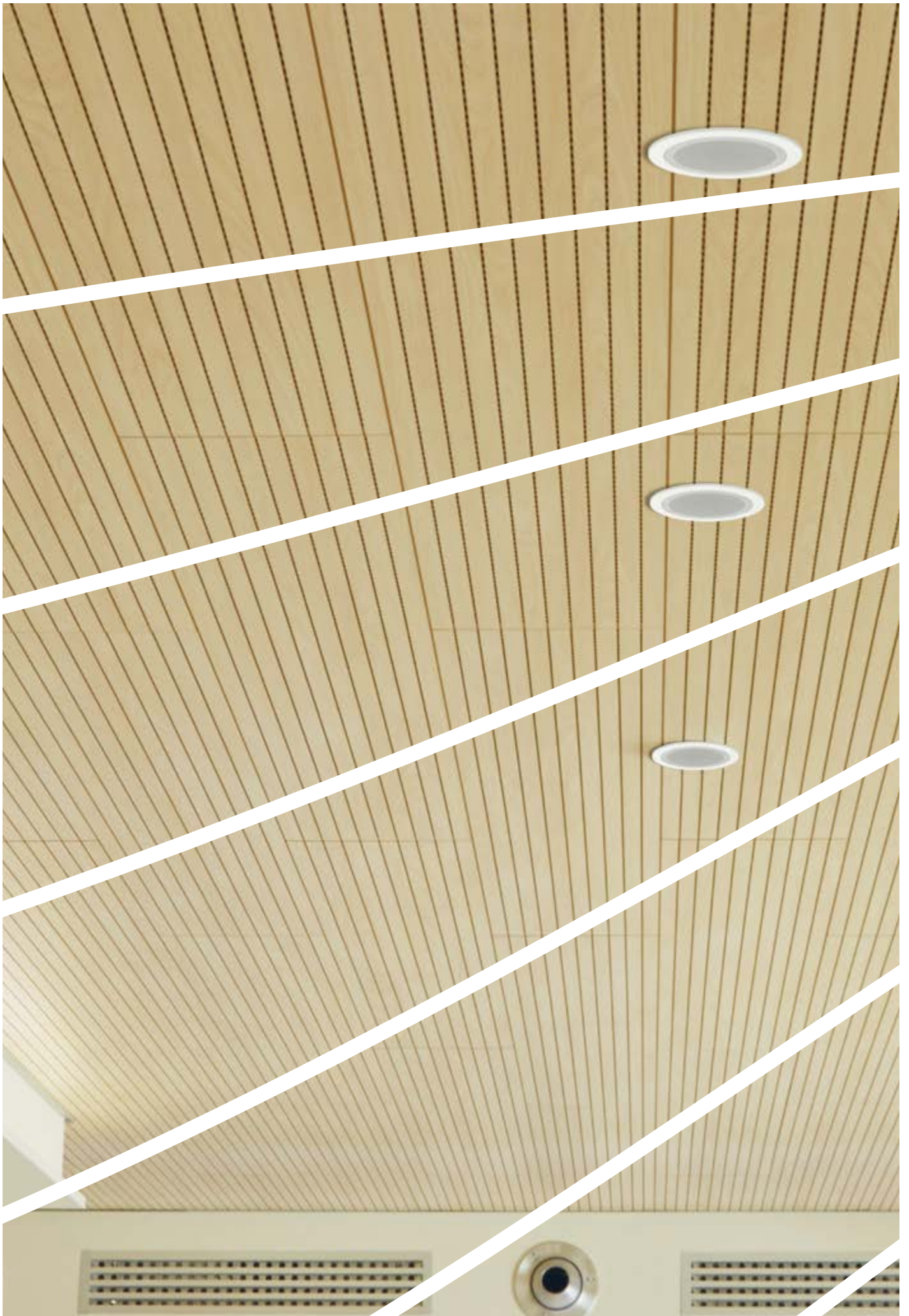
The Company 's headquarters are located in Recanati (Province of Macerata), Regione Marche, **Central Italy**. The area hosts small and medium-sized companies that play a key role in the development and realisation of large industrial projects.

Whether you install simple **sound diffusion systems** in private houses, announcement systems for large malls, audio-video systems for Convention Centres or **room automation systems** for hotels, hospitals and nursing homes, I.T.C. is always with you, with the efficiency given by our deep knowledge of the market, and with a strong motivation to extend

our presence worldwide. Trusted by our Clients, we are proud to be, think and act as a **"MADE IN ITALY"** company. Young, qualified and motivated personnel, constantly trained, allow I.T.C. to provide the best solutions and services to the market.

I.T.C. has got a network of **13 specialised agencies and 22 technical assistance service companies** all over Italy in order to guarantee **pre and post-sales activities** and constant assistance to designers, contractors and installers, to illustrate product applications and provide upgrade information on manuals and installation diagrams.







Fields

**Over 100.000
hotel rooms
and 5000 audio
systems realized**

AUDIO

Designing, producing and providing amplifying systems is our bread and butter. The audio department, with its dedicated technicians and engineers, daily takes care of supporting the clients on designing and achieving **any type of audio system for any need**. The entire line of **EN54 products** makes ITC the perfect partner also for sound evacuation systems for any space, big or small. Thanks to some external companies' partnership, we are able to design and supply **also multimedia audio/video systems**.

HOTEL AUTOMATION

I.T.C.'s **GRMS (Guest Room Management System)** department boasts over 30 years of experience on the most **advanced technologies** available on the market for our products, in order to give to our customers the possibility to **simplify and automate** their daily work; in doing that, they can save on electric and thermal energy and staff management. Thanks to GRMS department's technicians and engineers, the activity of **research and development** is very active. With our systems it is possible to manage from the simple access control to the air-conditioning, lights and alarms control both in the rooms and in the communal areas.



LEONARDOMINI cod. 1100-107010



BM2 cod. 1800-341010



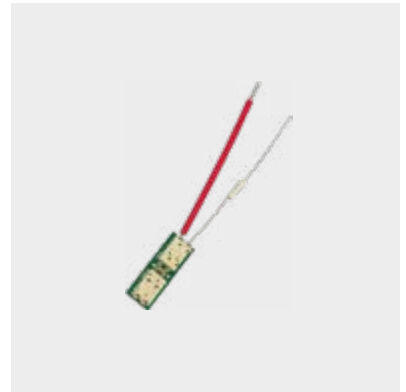
BM2E cod. 1800-341020



IC4/2 cod. 1800-304110



LEONARDOMAXI cod. 1100-20X000



FLLM cod. 1100-200010



BMSLM cod. 1100-200012



BMTLM cod. 1100-200013



PMELM cod. 1100-200014



BMTELM

cod. 1100-200015



BMTEGLM

cod. 1100-200016



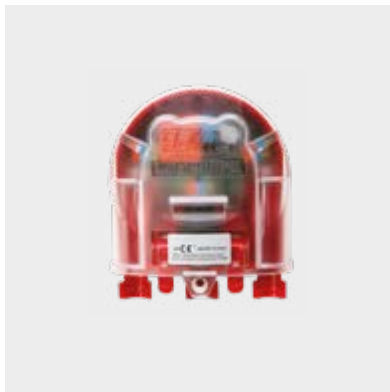
ASLLM

cod. 1100-200021



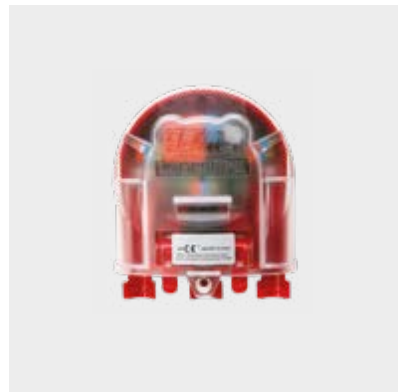
BLLM

cod. 1100-200022



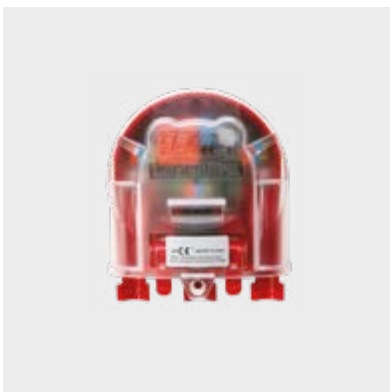
IALM

cod. 1100-200023



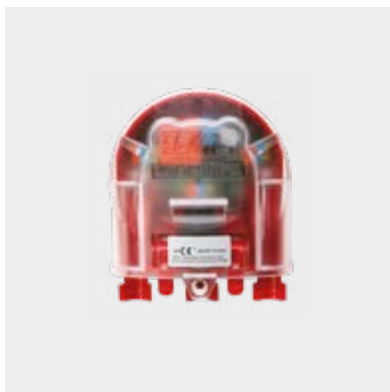
SGLM

cod. 1100-200024



MSLM

cod. 1100-200025



MRVLM

cod. 1100-200026



IFOLM

cod. 1100-200027



ME6LM

cod. 1100-200028



ACOLLPC

cod. 1100-200020



MET

cod. 1100-200017



DC230 / T10EN

cod. 1900-230061



DC185 / T6EN

cod. 1900-185061



DCSB20 / T10EN

cod. 1900-230062



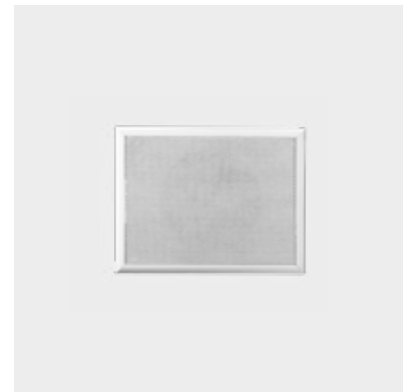
DCSB20 / T6EN

cod. 1900-185064



DC20 / T6EN

cod. 1900-185063



DP2520 / T6EN

cod. 1900-252061



DT165 / T20EN

cod. 1900-165203



SPJ-52WHBS

cod. 8105-131030



PSS / T20EN

cod. 1900-146201



PSS / T15EN

cod. 1900-198151



Leonardo mini

Stand-alone evac system, EN54 certified.

Evacuation system for wall installation, EN54-16 and EN54-24 certified, suitable for medium-small spaces like supermarkets, schools, sport locations, etc. Complete of batteries, PTT emergency microphone and music source, easy to install and set. Usable also for the management of background music and service announcement. Designed and produced in Italy, for a maximum reliability.

EVAC STAND-ALONE COMPACT SYSTEM

LEONARDOMINI

cod. 1100-107010



TECHNICAL SPECIFICATIONS

Certification	EN 54-16 / EN 54-4
N. of managed zones	2
Emergency microphone	on board
Max n. of additional microphones	1 directly connected to the system; unlimited with IC4/2 interfaces
Pre-registered emergency messages	YES
Amplifiers class	D
Output power (100V)	2x100W RMS
Distortion (THD+N) @ 1KHz at rated output	<0,3%
NC/NO clean contacts:	<ul style="list-style-type: none"> • for alarm warning repetition • for fault warning repetition
Inputs	n°4 monitorati per l'attivazione remota e il silenziamento dei messaggi
TEL input	YES
Music source	YEA Tuner FM, SD Card, USB, Bluetooth. remote control included.
AUX inputs	2
Emergency power supply/battery charger 54-4	YES
Batteries	n.2 12V-7Ah batteries included
Power supply	220Vac
Absorption	180W
Dimensions (WxHxD)	400x532x190mm
Colour:	Grey RAL 7035
Weight	16,8Kg

The compact system Leonardo Mini is a stand-alone audio evacuation system, certified EN54-16 and 54-24. It is intended to manage announcements for a quick and neat mobilization of people who need to evacuate indoor or outdoor areas during an emergency.

The warning messages occur through loudspeakers:

- in external speaker through the incorporated microphone
- from pre-registered messages digital sources

Moreover, Leonardo Mini can also carry out usefulness purposes, such as background music from incorporated music source or call voice messages, through remote microphone. Leonardo Mini is compliant with the specifications of the EVAC systems UNI EN-16 rule. It can control two loudspeaker lines at 100V with a maximum power of 100W each line. It has an inner emergency power supply. It is an apparatus contained in a metallic box of 40cm x 53cm x 19cm (WxHxD), settable on wall.

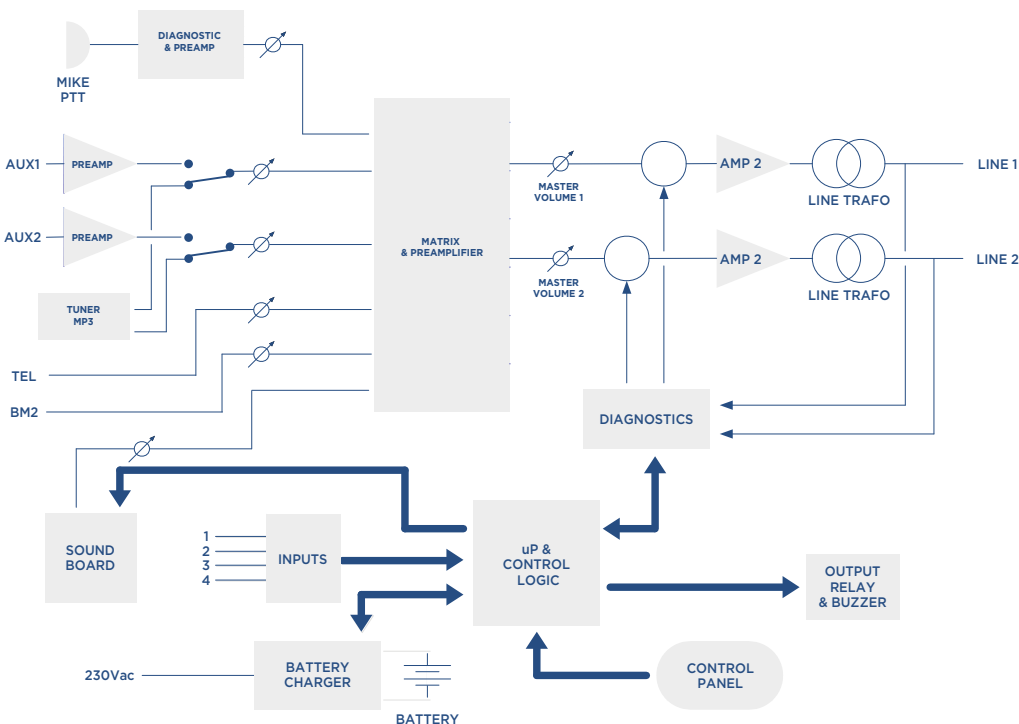
Inside you find different electronics and devices:

- Main circuit/motherboard: this is the heart of the system because every activity of diagnosis and messages, calls and music signals distribution management are developed by this electronic board.
- Front circuit: this circuit is also important because it consists of all the LED lights and buttons for programming and checking the system, together with the PTT microphone for the emergency calls.
- 24V switching power supply in order to make all the electronic boards work and to charge the 2 batteries which make the system work even without the main power supply.

Technical features

- n.2 outputs for 100V loudspeakers lines (n.2 different audio channels), monitored, maximum power 100W;
- n.1 NC/NO clear contact for alarm warning repetition;
- n.1 NC/NO clear contact for fault warning repetition;
- n.1 PTT monitored microphone for general and emergency calls, with priority;
- n.1 internal card for playing 3 alarm messages, pre-registered or custom;
- n.4 monitored inputs for the remote activation and the pre-registered alarm messages muting;
- n.1 input for the remote desktop microphone unit (art. BM2), for selective calls on audio channels or general calls;
- n.1 TEL input for the connection to telephone exchange, for general calls from local telephone;
- n.2 AUX inputs for external music sources for different music on the two audio channels, with the possibility of mixing;
- volume control on the front panel;
- incorporated music source with USB reader;
- SD card reader, FM tuner, Bluetooth receiver and remote controller, alternately commutable to the AUX inputs;
- manual activation/muting from the pre-registered alarm messages panel, protected by key;
- monitored sound-broadcasting lines with interruption or short-circuit fault detection;
- internal monitored audio amplifiers;
- fault acoustic warning (with possibility of muting), with visual indications on the panel, diversified by the type of fault;
- included sealed batteries to power the system in case of lack of network;
- smart battery charger with battery efficiency monitoring;
- network power supply: 230Vac
- metallic box for wall mounting.

Block diagram



DESKTOP MICROPHONE UNIT

BM2

cod. 1800-341010



Pre-amplified desktop microphone provided with gooseneck microphone, cardioid electret, and a bright ferrule, indicated for voice announcements, in combination with Leonardo Mini and with the multimedia player MP2120BT. It has got 2 buttons for zone selection and one button for the microphone activation, all with related led light. Body in aluminium, with sides in ABS and stand pins included. All set with wired 5m cable with RJ45 plug connector, for the connection to the mixer/amplifier from which it also receives the 24Vdc power supply. Colour: black/grey.

TECHNICAL SPECIFICATIONS:

Microphone	gooseneck - electret
Frequency response	50 + 16000Hz
Pick-Up Pattern	cardioid
Sensitivity	-45dB
Impedance	1000Ω
Microphone length	490mm
Power supply	24Vdc
Priority contact	YES
Zone selection	2
Cable length	5m
Connection	plug RJ45
Material	aluminium + ABS
Base dimension	106x60x130mm
Colour	black/grey

EMERGENCY DESKTOP MICROPHONE UNIT

BM2E

cod. 1800-341020



Pre-amplified EN54 desktop microphone with gooseneck microphone, dynamic, unidirectional. Indicated for service and emergency voice announcements, combined with the system Leonardo Mini. It has got buttons for service calls, buttons for the remote activation of pre-registered messages reproduction, a button for the emergency call, a key selector to enable emergency functions, a led to indicate the active functions. Body in aluminium, sides in ABS with stand pins included. It has got two screened plug RJ45 connections for the separated connection of the standard and the emergency microphone line. 24Vdc power supply directly from Leonardo Mini system or by optional AC/DC adaptor. All set with two CAT5e 5m patches.

TECHNICAL SPECIFICATIONS:

Microphone	gooseneck - electret
Frequency response	50 + 15000Hz
Pick-Up Pattern	cardioid
Sensitivity	-54dB
Impedance	1000Ω
Microphone length	410mm
Power supply	24Vdc
Priority contact	YES
Zone selection	2
Cable length	2 x 5m
Connection	2 x plug RJ45
Material	aluminium + ABS
Base dimension	206x60x130mm
Colour	black/grey

INTERFACE UNIT

IC4/2

cod. 1800-304110



Interface for the simultaneous connection of 4 desktop microphone units BM2 to Leonardo Mini or to the multimedia player MP2120BT.

Each microphone unit keeps the functions of the direct connection to the mixer, realizing priority calls on the other sound sources and activating, if present, the circuit, in order to generate the bitonal signal Ding-Dong.

The activation of any microphone unit implicates the temporary exclusion of the remaining connected ones.

Possibility to connect more than one interface in cascade, in order to increase the number of units to more than 4 (with the consequent decrease of 3 units each interface).

Made in a metallic container, it has 4 inputs and 1 output on plug RJ45 connectors.

Furnished with 24Vdc external power supply and with 1m connection cable with plug RJ45 connectors.

TECHNICAL SPECIFICATIONS:

Number of inputs	4 - plug RJ45
Number of outputs	1 - plug RJ45
Power supply voltage	24Vdc
Dimensions (WxHxD)	70x91x65mm
Colour	light grey
Weight	0,2Kg



Leonardo maxi

EN54-16 and EN54-4 stand-alone compact system.

EN54-16 and EN54-4 certified evacuation system for wall installation, suitable for big places like shopping malls, schools, sport centres, train stations, etc. Complete with wall fixing bracket and PTT emergency microphone, it is easy to install and set up. Possibility to connect more cascading devices, in order to serve bigger spaces or spaces which are located in different floors. It can be used also for background music and service calls. Designed and produced in Italy, for the best reliability.

EVAC STAND-ALONE COMPACT SYSTEM

LEONARDOMAXI



- cod. 1100-200000 **200W - 2 Linee**
- cod. 1100-201000 **200W - 2 Linee+bck**
- cod. 1100-202000 **400W - 4 Linee**
- cod. 1100-203000 **400W - 4 Linee+bck**
- cod. 1100-204000 **600W - 6 Linee**
- cod. 1100-205000 **600W - 6 Linee+bck**



TECHNICAL SPECIFICATIONS

Certification	EN 54-16 / EN 54-4
Number of lines	(CC20002) 2 (CC4004) 4 (CC6006) 6
Emergency microphone	on board, with priority and monitoring
Pre-registered emergency messages	YES
Amplifiers class	D
Output power (100V):	(CC20002) 200W - (CC4004) 400W - (CC6006) 600W
Distorsion /THD+N) @ 1KHz nominal power	0.1%
BGM aux inputs	2 analogical balanced independent inputs
Monitored logical inputs	6 x EVAC + 1 x muting + 1 x reset
Non-monitored logical inputs	8 general pull-down, programmable active low/high
Relay outputs	1 x EVAC + 1 x fault
Open collector outputs	8, programmable NA/NC
Emergency power supply/EN54-4 charger	YES
Backup amplifiers	YES on the versions: CC2002+ / CC4004+ / CC6006+
Power supply	220V
Power consumption	2.65A
Battery requirements	sealed rechargeable lead battery, for stationary use. 10-55Ah, based on the system power
Dimensions (HxWxD)	80 x 52 x 28 cm
Weight (without battery)	29Kg
Material	Metal / ABS
Colour	grey / red
Max. number of devices in the network	255
Max. total output power of the system in the network	102 kW
Max. distance among the devices	standard/preset: 250m with copper extensors: 750m with fibre extensors: 2500m

Leonardo Maxi solution is based on the wall all-in-one concept, connectable on the network. This digital audio distribution technology allows to make EVAC systems which are quite big, flexible and easy to control.

Leonardo Maxi offers the ease of an autonomous conventional system and the advantages of the global network topology. Every Leonardo Maxi system contains the necessary routing to serve up to 6 single zones, up to a maximum of total RMS 600W. Available also the versions with additional active backup amplifier. With a maximum of 255 power stations, connectable in a single global network, and considering that every system can serve up to 6 zones, one single installation can reach over 1500 loudspeaker lines, which can be cumulated in many paging zones.

In order to guarantee the maximum tranquillity to both the electrician and the final customer, ITC products are approved by third party and certified according to European standards.

This new selection of ITC products – Leonardo Maxi products – means less installation, maintenance and management costs. Designed to satisfy normative requirements, up to the most complex needs of engineers, facilities owners and managers and contractors' electrical systems. The selection is based on the planning culture, tested on the field by experts on fire safety and vocal alerts. Leonardo Maxi system is provided with a wide selection of software modules for



pre- and post-processing, like volume control devices and routing, mixing, commuting and prioritization devices. Processing components – such as equalizers and delay lines limiters – make Leonardo Maxi the perfect product for EVAC applications in any context.

Based on the necessity, it is possible to get the Leonardo Maxi in 6 different configurations. The system is provided with a special bracket for the batteries, which can contain from a minimum of 12V/10Ah to a maximum of 12V/55Ah. The included charger is certified to charge up to 12V/55Ah in 24hrs.

Available also a Leonardo Maxi Manager software, a management software which provides a complete and specific interface for the network system application. The software provides an easily accessible vision of the general system status and it eases the operating, thanks to an intuitive and safe configuration tool, which makes the setting and assistance easy.

It is the ideal completion of Leonardo Maxi management system in complex buildings.

- The configuration software supports all the components of the integrated system;
- Firmware updates on the field;
- Flashcard exchange protocol for a fast system update/setting with no direct computer.

END OF LINE CARD

FLLM

cod. 1100-200010



Device for the installation at the end of the loudspeakers line. Necessary in order to allow the Leonardo Maxi power station to verify, check and detect loudspeakers line faults or disruptions. 10pcs pack.

STANDARD MICROPHONE UNIT

BMSLM

cod. 1100-200012



Desktop/wall microphone unit for zone calls. Provided with flexible gooseneck microphone. It has 6 programmable buttons for zone selection + an additional button for calling. The microphone unit connects with a CAT5e or higher cable, for a maximum length of 250m. It is a standard microphone base, so it does not have function tied to EVAC/emergency.

TOUCHSCREEN MICROPHONE UNIT

BMTLM

cod. 1100-200013



Desktop/wall microphone unit with touchscreen panel. It can serve up to 255 zones and enable any available source or message for general aims. Provided with gooseneck microphone for general paging. The unit offers general paging functions: general messages, BGM, non-emergency events (so, no emergency functions). The unit is connected to the L-Net microphone interface of the system main unit and can be star-connected to the other L-Net devices. The microphone unit connects with a CAT5e or higher cable, for a maximum length of 250m.

TECHNICAL SPECIFICATIONS

Number of zones	6
Commands and signs	6 configurable zone buttons. "Zone selection" and "occupied" led lights
Microphone	gooseneck. Length: 31,5cm
Consumption (24V)	max. 50mA
Frequency response	100Hz - 12KHz
Connection	RJ-45
Max. length	250m
Dimensions	6x13x21cm
Material	metal/ABS
Mounting	desktop or wall (wall brackets included)

TECHNICAL SPECIFICATIONS

Number of zones	max. 255 zone (global network)
Commands and signs	touchscreen display, configurable for zone calls, zone groups selection, music sources management, events activation/control, errors/fault warning
Microphone	gooseneck. Length: 31,5cm
Consumption (24V)	max. 180mA
Frequency response	100Hz - 12KHz
Connection	RJ-45
Power supply	through RJ-45
Max. length	250m
Dimensions	6x13x21cm
Material	metal/ABS
Mounting	desktop or wall (wall brackets included)

EMERGENCY MICROPHONE WITH WALL BOC

PMELM

cod. 1100-200014



Wall mounting paging microphone, with control panel and fireman microphone. It can serve up to 6 zones for EVAC emergency paging. The product includes a hand-microphone with PTT button, which can be pre-set to access specific zones or group zones. EVAC and NOTICE messages can be enabled on the front panel through specific buttons. Moreover, it incorporates the mandatory EN 54-16 indications, as well as an emergency/fault buzzer and manual mandatory controls. This microphone is connected to the L-Net interface of the main Leonardo Maxi unit and can be star-connected to other devices. This product is for EVAC/NOTICE messages and for EVAC alive paging, not for general or commercial paging. It has a complete monitoring of the microphone faults.

TECHNICAL SPECIFICATIONS

Number of zones	6
Commands and signs	warning light test button, muting button, led lights for: power, alarm and fault.
Microphone	PTT with priority and on board monitoring
Consumption (24V)	max. 180mA
Frequency response	100Hz - 12KHz
Connection	RJ-45
Power supply	through RJ-45
Max. length	250m
Dimensions	38,5x44x13,5cm
Material	metal/ABS
Mounting	wall

TOUCHSCREEN MICROPHONE UNIT + PTT MICROPHONE

BMTELM

cod. 1100-200015



Wall/desktop emergency microphone with touchscreen panel. It can serve up to 255 zones and enable emergency messages or priority vocal alarm of the fireman microphone, in any of the system zones. The microphone unit is designed as emergency panel with a completely monitored portable microphone. This microphone offers only the function in emergency mode. When the transparent window is closed, the panel is blocked (access level 1) and no paging functions are available. As soon as the transparent window is open, the system automatically moves to emergency mode. It includes one EVAC message, two NOTICE messages, muting/reset functions and a PTT fireman microphone for direct evacuation transmission. This microphone is connected to the L-Net interface of the main Leonardo Maxi unit and can be star-connected to other L-Net devices. It can monitor faults and priority EVAC function, being adequate as an emergency microphone with complete access to every zone of the system. The microphone unit connects with a CAT5e or higher cable, for a maximum length of 250m.

TECHNICAL SPECIFICATIONS

Number of zones	max. 255 zone (global network)
Commands and signs	touchscreen display, configurable for zone calls, zone groups selection, music sources management, events activation/control, errors/fault warning PTT
Microphone	
Consumption (24V)	max. 180mA
Frequency response	100Hz - 12KHz
Connection	RJ-45
Power supply	through RJ-45
Max. length	250m
Dimensions	6x26x21cm
Material	metal/ABS
Mounting	desktop or wall (wall brackets included)

TOUCHSCREEN MICROPHONE UNIT + PTT MICROPHONE + GOOSENECK

BMTEGLM

cod. 1100-200016



Wall/desktop emergency microphone with touchscreen panel. It can serve up to 255 zones and enable emergency messages or priority vocal alarm of the fireman microphone, in any of the system zones. The microphone unit is designed as emergency panel with a completely monitored portable microphone. Moreover, it is equipped with a gooseneck microphone for service calls. This microphone offers a double-functioning mode: a paging modality (transparent window closed), in which only paging calls and general messages are available, and an emergency call (transparent window open), in which emergency messages and fireman microphone are available. It includes one EVAC message, two NOTICE messages, muting/reset functions and a PTT fireman microphone for direct evacuation transmission. This microphone is connected to the L-Net interface of the main Leonardo Maxi unit and can be star-connected to other L-Net devices. It can monitor faults and priority EVAC function, being adequate as an emergency microphone with complete access to every zone of the system. The microphone unit connects with a CAT5e or higher cable, for a maximum length of 250m.

TECHNICAL SPECIFICATIONS

Number of zones	max. 255 zone (global network)
Commands and signs	touchscreen display, configurable for zone calls, zone groups selection, music sources management, events activation/control, errors/fault warning
Microphone	PTT for emergency + gooseneck for service calls.
Consumption (24V)	Length: 31,5cm max. 180mA
Frequency response	100Hz - 12KHz
Connection	RJ-45
Power supply	through RJ-45
Max. length	250m
Dimensions	6x26x21cm
Material	metal/ABS
Mounting	desktop or wall (wall brackets included)

LINE ADDITIONAL POWER SUPPLY

ASLLM

cod. 1100-200021



This device is L-Net power supply injector which provides an injection of additional power, directly on the bus line. NOTE: power supply not included.

Thanks to L-Net power supply injector, more than one L-Net device, with high power, can be installed in the same cable; devices can be installed way further from the Leonardo Maxi and far from each other. Connection with RJ45 plug and CAT5e cable. Every bus power offers 30V CC during the network functioning, with a maximum output of 500Ma, powering all devices along the bus. NOTE: it is possible to connect a maximum of 8 devices in one bus channel. This device is extremely useful when current consumption of the devices connected to the same bus is higher than 500Ma. Power voltage in the bus cable could go below 20V CC, because of an excessive cable resistance, caused by:

- small diameter of the string in the L-Net CAT5e cable;
- big distance from the main system;
- both.

TECHNICAL SPECIFICATIONS

Power supply	24 - 30 VDC. Max. 1000mA
Number of connectable devices	8 each bus
Dimensions	22x40x60mm
Material	ABS
Mounting	in the line

DIN RAIL LINE BOOSTER

BLLM

cod. 1100-200022



This booster product is the heart of the Loopdrive system. It can manage up to 20 devices (IALM/SGLM/MSLM/MRVKM types) on a dual-core cable. A single booster can let pass 800W audio signal from an amplifier, and in the meantime, it can inject DC to the loop, in order to power and manage the connected modules. One amplifier channel be split in more than one booster, creating multiple loops with individual monitoring for multi-zone applications.

The case is designed for DIN rail mounting, front indicators and buttons allow a fast access to the main system functions. This product is and works only for loop lines.

TECHNICAL SPECIFICATIONS

Commands and signs	3 status led lights, 2 service and pre-reset buttons and fault contact. Communication on RS-485.
AMP input (100V audio)	AC voltage max.100VRMS, 300VPP. AC current max. 8A.
Frequency range	40Hz - 20kHz (-3dB)
LOOP output	AC. like AMP output. DC voltage: 30V. DC current: max.130Ma
Loop relay contact	max. 250VAC/8A
Loop total load	800W
Consumption (24V)	max. 100mA
Detections	short circuit, opening, ground dispersion
Wiring	2 wires 0,8 - 2,5mm. max length: 1km
Connection	RJ-45
Power supply	24VDC
Max. length	250m
Dimensions	17,5x114,5x99mm
Material	ABS
Mounting	DIN rail

LOUDSPEAKER INSULATOR

IALM

cod. 1100-200023



This is a module which can be used in loop lines, to isolate a portion of line (and related speakers), if a short circuit happens. With this product, in the loop line systems, it is possible to avoid the blockage of the entire line if there is a short circuit. It works combined with the BLLM booster, which is the controller. This product is and works only for loop lines.

TECHNICAL SPECIFICATIONS

Dimensions	140x120x50mm
Material	ABS
Mounting	on cable

JUNCTION BOX

SGLM

cod. 1100-200024



It is a junction box, necessary when a speaker does not contain a condenser, to block the DC coming from the BLLM booster. This product is and works only for loop lines.

TECHNICAL SPECIFICATIONS

Dimensions	140x120x50mm
Material	ABS
Mounting	on cable

RELAY MODULE

MSLM

cod. 1100-200025



It is a device, provided with a relay, to install along the loudspeaker line, in order to activate a clean contact in case of an emergency. It can be very useful to mute the other audio systems during an emergency. This product is and works only for loop lines.

TECHNICAL SPECIFICATIONS

Dimensions	140x120x50mm
Material	ABS
Mounting	su cavo

VOLUME CONTROL MODULE

MRVLM

cod. 1100-200026



It is a module for local volume control (max. 50W), to be associated with a volume regulator. It is provided also with an input for a signal coming from a local source (for example: shops inside malls, in which there is an EVAC system in common). In emergency conditions, the volume control and the local source are bypassed and the emergency message is broadcasted, interrupting the background music. Moreover, like IALM, it can isolate the line part where there could be a short circuit. This product is and works only for loop lines.

TECHNICAL SPECIFICATIONS

Dimensions	140x120x50mm
Material	ABS
Mounting	su cavo

OPTICAL FIBRE INTERFACE

IFOLM

cod. 1100-200027



Multi-mode optical fibre signal adaptor, DIN rail mounting and dedicated to Leonardo Maxi evacuation systems. It is necessary when you have the necessity to connect more than one Leonardo Maxi power stations far away from each other (more than 250m). It can extend the single connection ray up to 2km. The adaptor is powered from the G-Net port of the power station and it is provided with a standard SC connector for the fibre cable, allowing a simple connection.

TECHNICAL SPECIFICATIONS

Dimensions	90x36x62mm
Material	ABS
Mounting	barra DIN

6 LINES EXTENSION MODULE

ME6LM

cod. 1100-200028



It is an 100V audio-matrix, mounted on DIN rail, with 2 inputs and 6 outputs. It has got two 100V audio inputs (CHA, CHB) which directly connect to the amplifier outputs. This device extends the loudspeaker lines up to 6. Every loudspeaker line can manage up to 200W and can be a single separated zone. An input can accept a maximum of 500W, which is also the load limit for all 6 output lines together.

TECHNICAL SPECIFICATIONS

Dimensions	90x118x65mm
Material	ABS
Mounting	barra DIN

PC CONNECTION ADAPTER

ACOLLPC

cod. 1100-200020



Adapter cable for connecting the PC to the Leonardo Maxi system. It has got USB port and RJ45 for connection. 3m USB cable and 1m CAT5e cable included.

PTT EMERGENCY DESKTOP MICROPHONE

MET

cod. 1100-200017



PTT emergency microphone for Leonardo Maxi. It is the same microphone on board of Leonardo Maxi power station, but in a plastic container with transparent window. Wall or desktop installation. Equipped with warning led lights, as requested by the law.

TECHNICAL SPECIFICATIONS

Dimensions	80x130x210mm
Material	Metallo/ABS
Mounting	da tavolo/da parete

EN 54 10W CEILING MOUNT SPEAKER

DC230 / T10EN

cod. 1900-230061

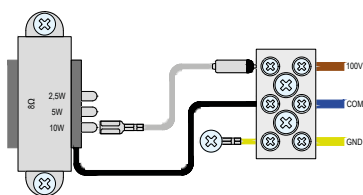


EN54-24 certified 10W ceiling speaker, suitable for quality reproduction of announcements and background music. Painted metal body and grille, with spring clips for quick and easy ceiling mounting on flame-resistant caps. Complete with line transformer with selectable power for better sound level regulation. Dual ceramic terminal block for 100V signal input and output and thermal fuse for exclusion from mains line in the event of temperatures above 150°C. Particularly suitable for emergency announcements.

TECHNICAL SPECIFICATIONS

Type	recessed in false ceiling
Operating voltage	100V
RMS power	10W
Intermediate power	10/5/2,5W
Transformer impedance	1/2/4KΩ
Frequency response	170 ÷ 20000Hz
Dispersion angle	140° (1Khz) / 120° (4Khz)
S.P.L. 1W@1m	93 ±3dB
Speaker type	6,5" full range
Speaker impedance	8Ω
Dimensions	ø230mm x 129mm
Hole dimensions	ø205mm
Material	steel
Colour	white
Weight	1,75Kg

CONNECTION



EN 54 6W CEILING MOUNT SPEAKER

DC185 / T6EN

cod. 1900-185061

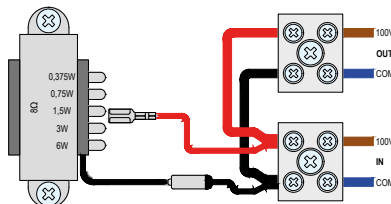


EN54-24 certified 6W ceiling speaker, suitable for quality reproduction of announcements and background music. Painted metal body and grille, with spring clips for quick and easy ceiling mounting on flame-resistant caps. Complete with line transformer with selectable power for better sound level regulation. Dual ceramic terminal block for 100V signal input and output and thermal fuse for exclusion from mains line in the event of temperatures above 150°C. Particularly suitable for emergency announcements.

TECHNICAL SPECIFICATIONS

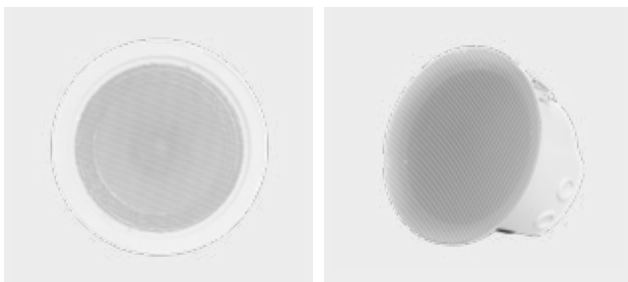
Type	recessed in false ceiling
Operating voltage	100V
RMS power	6W
Intermediate power	6/3/1,5/0,75/0,38W
Transformer impedance	1,24/1,84/3,34/6,79/13,3KΩ
Frequency response	130 ÷ 18000Hz
Dispersion angle	180° (1Khz) / 150° (2Khz) / 70° (4Khz)
S.P.L. 1W@1m	86,5 ±3dB
Speaker type	5" full range
Speaker impedance	8Ω
Dimensions	ø180mm x 147mm
Hole dimensions	ø160mm
Material	steel
Colour	white
Weight	1,2Kg

CONNECTION



RIMLESS EN 54 10W CEILING MOUNT SPEAKER

DCSB20 / T10EN
cod. 1900-230062

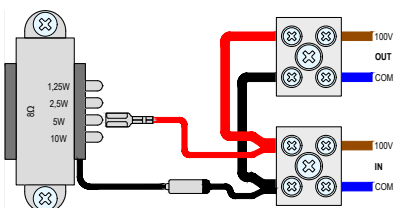


EN54-24 certified 10W ceiling speaker, suitable for quality reproduction of announcements and background music. Rimless version, painted metal body and grille, with spring clips for quick and easy ceiling mounting on flame-resistant caps. Complete with line transformer with selectable power for better sound level regulation. Dual ceramic terminal block for 100V signal input and output and thermal fuse for exclusion from mains line in the event of temperatures above 150°C. Particularly suitable for emergency announcements.

TECHNICAL SPECIFICATIONS

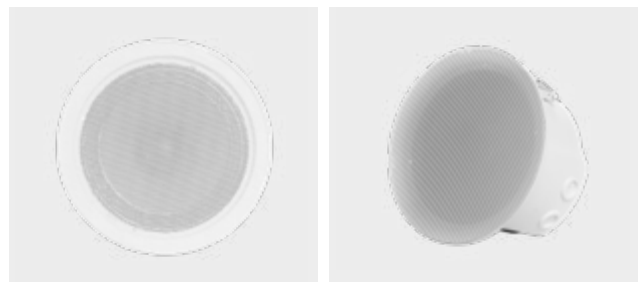
Type	recessed in false ceiling
Operating voltage	100V
RMS power	10W
Intermediate power	10/5/2,5/1,25W
Transformer impedance	1K Ω / 2K Ω / 4K Ω / 8K Ω
Frequency response	90 - 20000Hz
Dispersion angle	180° (1Khz) / 70° (4KHz)
S.P.L. 1W@1m	89dB
Speaker type	6" x 1 (2-way)
Speaker impedance	8 Ω
Dimensions	\varnothing 200mm x 86mm
Hole dimensions	\varnothing 175mm
Material	steel
Colour	white
Weight	1,1Kg

CONNECTION



RIMLESS EN 54 6W CEILING MOUNT SPEAKER

DCSB20 / T6EN
cod. 1900-185064

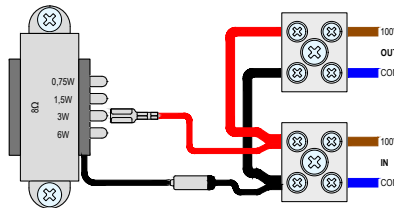


EN54-24 certified 6W ceiling speaker, suitable for quality reproduction of announcements and background music. Rimless version, painted metal body and grille, with spring clips for quick and easy ceiling mounting on flame-resistant caps. Complete with line transformer with selectable power for better sound level regulation. Dual ceramic terminal block for 100V signal input and output and thermal fuse for exclusion from mains line in the event of temperatures above 150°C. Particularly suitable for emergency announcements.

TECHNICAL SPECIFICATIONS

Type	recessed in false ceiling
Operating voltage	100V
RMS power	6W
Intermediate power	6/3/1,5/0,75W
Transformer impedance	1,7K Ω / 3,3K Ω / 6,7K Ω / 13K Ω
Frequency response	100 - 18000Hz
Dispersion angle	180° (1Khz) / 70° (4KHz)
S.P.L. 1W@1m	91dB
Speaker type	6" x 1 full range
Speaker impedance	8 Ω
Dimensions	\varnothing 200mm x 86mm
Hole dimensions	\varnothing 175mm
Material	steel
Colour	white
Weight	1 Kg

CONNECTION



EN 54 6W CEILING MOUNT SPEAKER

DC20 / T6EN

cod. 1900-185063



EN54-24 certified 6W ceiling speaker, suitable for quality reproduction of announcements and background music. Painted metal body and grille, with spring clips for quick and easy ceiling mounting on flame-resistant caps. Complete with line transformer with selectable power for better sound level regulation. Dual ceramic terminal block for 100V signal input and output and thermal fuse for exclusion from mains line in the event of temperatures above 150°C. Particularly suitable for emergency announcements.

EN54 6W WALL SPEAKER

DP2520 / T6EN

cod. 1900-252061



EN54-24 certified 6W protruding wall speaker, suitable for quality reproduction of announcements and background music. Painted wood body and metal grille. Complete with line transformer with selectable power for better sound level regulation. Dual ceramic terminal block for 100V signal input and output and thermal fuse for exclusion from mains line in the event of temperatures above 150°C. Particularly suitable for emergency announcements.

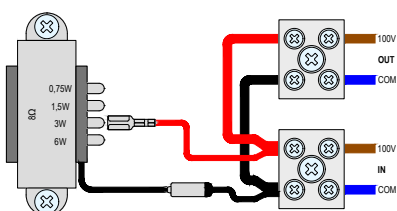
TECHNICAL SPECIFICATIONS

Type	recessed in false ceiling
Operating voltage	100V
RMS power	6W
Intermediate power	6/3/1,5/0,75W
Transformer impedance	1,7K Ω / 3,3K Ω / 6,7K Ω / 13K Ω
Frequency response	100 - 18000Hz
Dispersion angle	180° (1KHz) / 70° (4KHz)
S.P.L. 1W@1m	91dB
Speaker type	6" x 1" full range
Speaker impedance	8 Ω
Dimensions	ø200mm x 90mm
Hole dimensions	ø175mm
Material	steel
Colour	white
Weight	1,1Kg

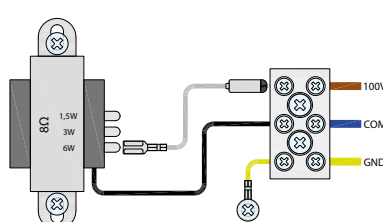
TECHNICAL SPECIFICATIONS

Type	protruding wall speaker
Operating voltage	100V
RMS power	6W
Intermediate power	6/3/1,5W
Transformer impedance	1,7/3,3/6,7K Ω
Frequency response	150 - 20000Hz
Dispersion angle	180° (1KHz) / 70° (4KHz)
S.P.L. 1W@1m	92 ±3dB
Speaker type	6,5" full range
Speaker impedance	8 Ω
Dimensions	254,5mm(H) x 204,5 (W) x 87,5 mm (D)
Material	wood/steel
Colour	white
Weight	1,6Kg

CONNECTION



CONNECTION



EN54 20W HORN SPEAKER

DT165 / T20EN

cod. 1900-165203

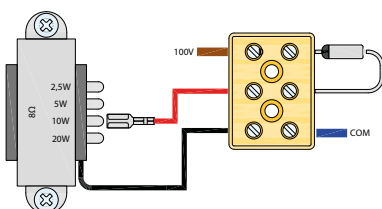


EN54-24 certified 20W horn wall speaker, suitable for quality reproduction of announcements in those places where a high acoustic performance is required. ABS body with round bell, equipped with a "U" adjustable bracket, for an easy mounting, both indoor and outdoor. Complete with line transformer with selectable power for better sound level regulation. Dual cable gland and dual ceramic terminal block for 100V signal input and output and thermal fuse for exclusion from mains line in the event of temperatures above 150°C. Particularly suitable for emergency announcements.

TECHNICAL SPECIFICATIONS

Type	wall speaker
Operating voltage	100V
RMS power	20W
Intermediate power	20/10/5/2,5W
Transformer impedance	0,5/1/2/4KΩ
Frequency response	350 + 9000Hz
S.P.L. 1W@1m	106 +3dB
Speaker	magnetic-dynamic device
Speaker impedance	8Ω
IP protection grade	66
Dimensions	ø165mm x 238mm
Fixing	U bracket
Material	ABS
Colour	grey
Weight	1,9Kg

CONNECTION



EN54 20W BIDIRECTIONAL PROJECTOR SPEAKER

SPJ-52WHBS

cod. 8105-131030

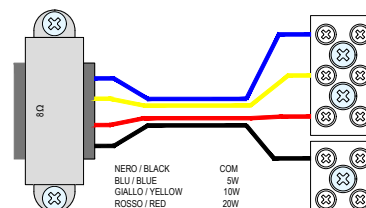


EN54-24 certified 20W bidirectional projector wall speaker, suitable for quality reproduction of announcements in those places where a high efficiency in a direction is required. It reduces the echoes from back and side walls, floors and ceilings. Aluminium body with painted metal grill, equipped with a wall bracket, for an easy mounting, both indoor and outdoor. Complete with line transformer with selectable power for better sound level regulation. Dual ceramic terminal block for 100V signal input and output and thermal fuse for exclusion from mains line in the event of temperatures above 110°C. Particularly suitable for emergency announcements.

TECHNICAL SPECIFICATIONS

Type	wall speaker
Operating voltage	100V
RMS power	20W
Intermediate power	20/10/5W
Transformer impedance	0,5/1/2/4KΩ
Frequency response	120 + 20000Hz
S.P.L. 1W@1m	89 +3dB
Speaker	5" full range
Speaker impedance	8Ω
IP protection grade	56
Dimensions	ø146mm x 186mm
Fixing	wall bracket
Material	aluminium
Colour	white
Weight	3,3Kg

CONNECTION



EN54 20W PROJECTOR SPEAKER

PSS / T20EN
cod. 1900-146201

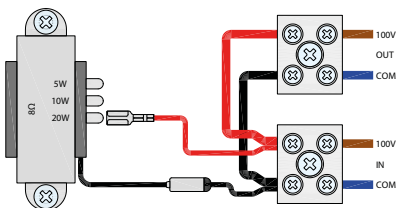


EN54-24 certified 20W projector wall speaker, suitable for quality reproduction of announcements in those places where a high efficiency in a direction is required. It reduces the echoes from back and side walls, floors and ceilings. Aluminium body, equipped with a "U" adjustable bracket, for an easy mounting, both indoor and outdoor. Complete with line transformer with selectable power for better sound level regulation. Dual cable gland and dual ceramic terminal block for 100V signal input and output and thermal fuse for exclusion from mains line in the event of temperatures above 150°C. Particularly suitable for emergency announcements.

TECHNICAL SPECIFICATIONS

Type	wall speaker
Operating voltage	100V
RMS power	20W
Intermediate power	20/10/5W
Transformer impedance	0,5/1/2/4KΩ
Frequency response	130 + 20000Hz
Dispersion angle	230° (1Khz) / 60° (4Khz)
S.P.L. 1W@1m	91 +3dB
Speaker	5" full range
Speaker impedance	8Ω
IP protection grade	66
Dimensions	ø146mm x 207mm
Fixing	U bracket
Material	steel
Colour	white
Weight	2,5Kg

CONNECTION



EN54 15W PROJECTOR SPEAKER

PSS / T15EN
cod. 1900-198151

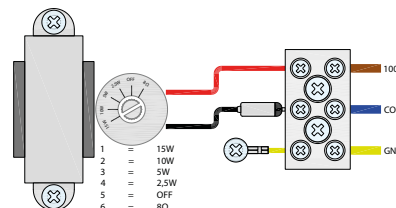


EN54-24 certified 15W projector wall speaker, suitable for quality reproduction of announcements in those places where a high efficiency in a direction is required. It reduces the echoes from back and side walls, floors and ceilings. Self-extinguishing ABS body equipped with a "U" adjustable bracket, for an easy mounting, both indoor and outdoor. Complete with line transformer with selectable power for better sound level regulation. Ceramic terminal block for 100V signal input and output and thermal fuse for exclusion from mains line in the event of temperatures above 150°C. Particularly suitable for emergency announcements.

TECHNICAL SPECIFICATIONS

Type	wall/ceiling speaker
Operating voltage	100V
RMS power	15W
Intermediate power	15/10/5/2,5W
Transformer impedance	0,67/1/2/4KΩ
Frequency response	120 + 20000Hz
Dispersion angle	150° (1Khz) / 30° (4Khz)
S.P.L. 1W@1m	92 +3dB
Speaker	6,5" full range
Speaker impedance	8Ω
IP protection grade	65
Dimensions	ø198mm x 250mm
Fixing	U bracket
Material	ABS
Colour	white
Weight	2,35Kg

CONNECTION





Icons legend



EN 54-16 CERTIFIED



EN 54-24 CERTIFIED



EN 54-4 CERTIFIED



SUITABLE FOR 19" RACK CABINET



SUITABLE FOR DIN RAIL



CUSTOMIZABLE COLOUR



EASY INSTALLATION



WATERPROOF

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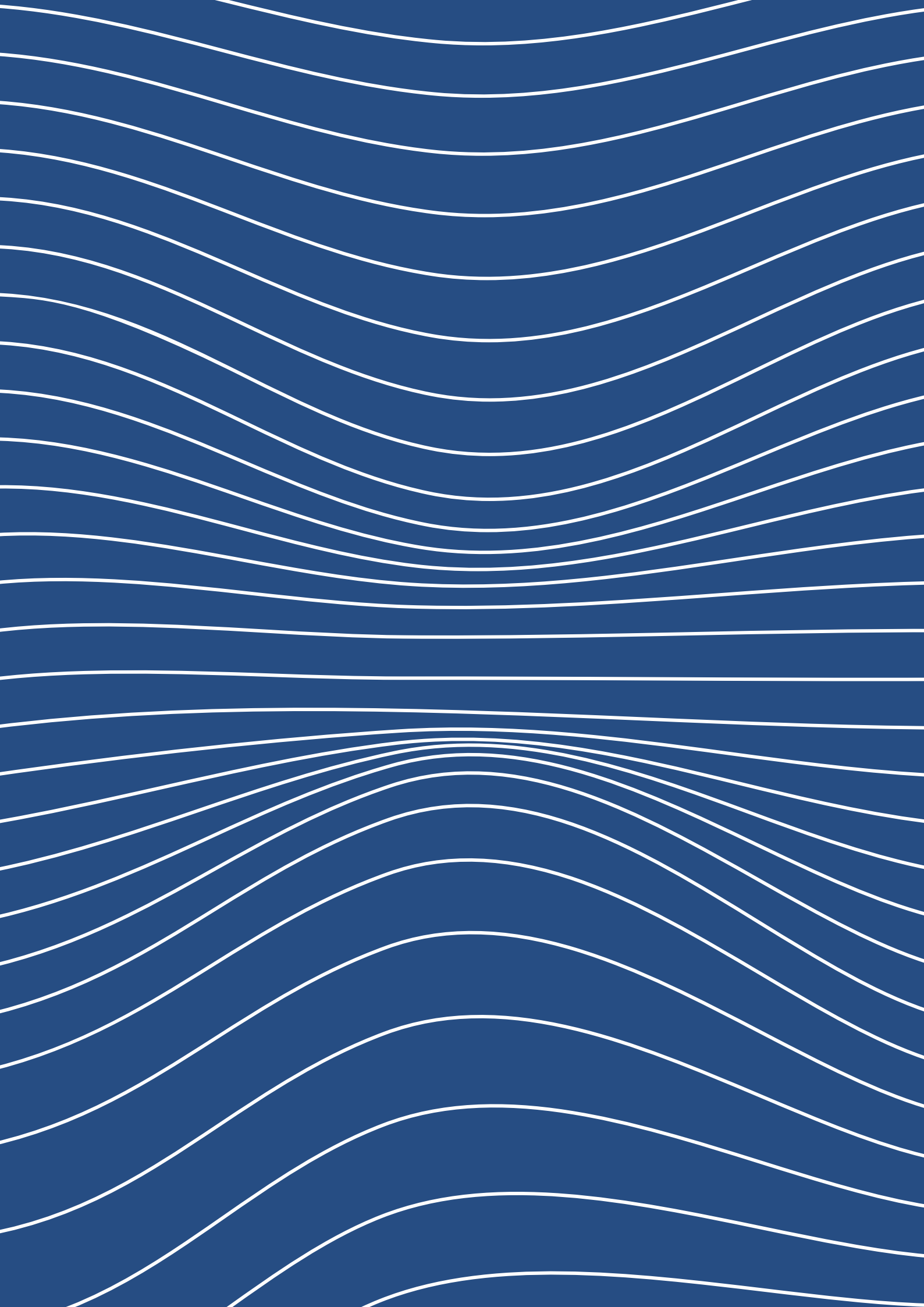


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