



**COMMERCIAL** AUDIO



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# RCF BUILT ITS HISTORY OF SOUND AMPLIFICATION

**Founded in 1949, RCF built its history of sound amplification** from basic solutions for small spaces to vast and complex digital systems for theatres, shopping malls, airports, railway stations, underground metro's, exhibition centres, schools, hospitals, sports arenas, stadia, hotels.

Our Product's design and manufacturing are held in the Reggio Emilia headquarters where more than 300 people are employed ensuring the high quality of RCF's products and systems.

**Today RCF produces a wide and diverse range of products to satisfy any sound and musical amplification need.** This can range from a single product to complete integrated solution. In doing so, the company can cover everything from a small project to very large and complex system.

RCF controls every step of the production process, from the design to the construction and marketing of its products. Owning its own transducers technology gives RCF an enormous advantage in the development of complete speaker systems, achieving **the perfect match between transducers and electronics, now more and more focused on digital technology.**

**RCF has always been committed in providing complete support to its customers helping them to choose the most suitable solutions for their projects, instruct on how to install the products in the correct way and achieve the best possible performances.**

This support activity **is crucial to RCF's continual success** and we keep investing in this department by expanding our engineering team of product specialists as well as the use of the latest equipments and software technologies.

The direct involvement in groups and more complex projects around the world is continually raising the know-how, experience and reputation of our team of specialists that is considered one of the best **Engineering Support Group** in our industry.

A system design must always be carried out considering the acoustics of the environment, the architectural and installation constraints, the maintenance costs and, on top of everything, the user's requirements. **The extensive and complete range of RCF products enables the Engineering Support Group to submit multiple design solutions** optimized and tailored according to costs' and performances' requirements.

ESG engineers are also involved in educational and training activities where they can exchange information and opinion with consultants and contractors participating to the RCF Audio Academy program, an extensive range of courses and workshops organized worldwide on several subjects by RCF engineers.

Engineering Support Group is able to produce:

- Design proposal based on supplied venue details, including environment acoustic simulation, products list, bloc diagram, speaker coverage mapping.
- Design validation based on design submitted by the client providing guidance on the proper selection and placement of RCF products.
- Design of alternative solutions, based on existing specs, providing advice and improved system configurations based upon RCF products.
- Acoustical consultancy for the definition of projects specifications in cooperation with architects' and contractors' offices.
- On site system start-up and commissioning. Furthermore RCF provides on request rack already wired completed with connection diagrams and operation manuals.
- Educational and training activities, included in the RCF Audio Academy world-wide program, or tailor made for the client's requirements.

# VOICE ALARM AND CONTROL AND INDICATION EQUIPMENT IN COMPLIANCE WITH EN 54-16 AND EN 60849

For the management and broadcast of background music and announcements, including evacuation and emergency, with controls and reporting in accordance with EN 54-16 and EN 60849.



## MODEL

NUMBER OF ZONES FOR 100 V SYSTEMS

AMPLIFIERS AND SPEAKERS LINES REDUNDANCY MANAGEMENT

SPARE AMPLIFIER MANAGEMENT

NUMBER OF MICROPHONE CONSOLES

CONSOLE WITH INFORMATIVE/INTERACTIVE LCD DISPLAY

AUDIO CHANNELS

PROGRAMMABLE CONSOLES

INPUT FOR MUSIC SOURCES

AUX CONNECTIONS ANALOG. AUDIO IN/OUT

CONFIGURATION

INTEGRATED PRE-RECORDED EVACUATION/ROUTINE MESSAGES

DSP

CONNECTIVITY

CONSOLE CONNECTION CABLES

SYSTEM COMPONENTS CONNECTION CABLES

SPEAKERS CONNECTION CABLES

REMOTE CONTROLS

BACK-UP POWER SUPPLY

COMPLIANT TO EN 60849

CERTIFICATION EN 54-16

CERTIFICATION EN 54-4

**DXT 7000**

512

Yes

Yes

32

Yes

5 for each system's unit + 2 for the whole system

Yes

up to 5 for each system's unit

5 / 2 for each unit; 64 units for each system

PC

Yes / Yes

Yes

USB + Serial

CAT 6 FTP or J Type (RCF)

CAT 6 or J Type (RCF)

Pair of twisted cables, section depending on connected power and distance

Yes

48 V CC

Yes

Yes

Yes (with PS 6648)

**DXT 3000**

2, 4 or 6 expandable to 48

Yes

Yes

up to 4

-

3

-

1 + internal reader MP3

-

Frontal panel + DIPs

Yes / -

Yes

-

CAT 6 FTP or J Type (RCF)

CAT 6 FTP or J Type (RCF)

Pair of twisted cables, section depending on connected power and distance

Yes

24 V CC (MX 3250) - 48 V CC (MX 3500) - intrnal batteries (not included)

Yes

Yes

Yes

# MU 7100EN MKII

p/n 12100063

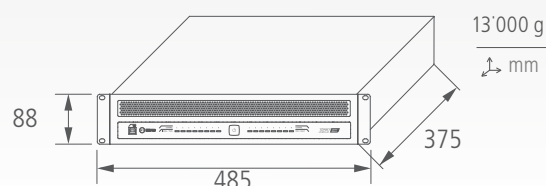
## AMPLIFIED MASTER UNIT



MU 7100EN is the master unit of the DXT 7000 Voice Alarm system, designed to fulfill all requirements of EN 54-16 and EN 60849 standard. The whole signal path from microphone to loudspeaker lines is completely and automatically monitored against faults. All properties and functions of the system are specified with Windows based DXT 7000 configuration software and are downloaded to master unit through its USB port.

- 8 x 7 configurable digital matrix
- Powerful DSP platform on-board
- Dual AC and DC power supply
- 8 x 80 W power amplifier
- PC software configuration
- Emergency messages on monitored memory
- Up to 32 units linked together
- Up to 256 loudspeaker lines

### REAR VIEW



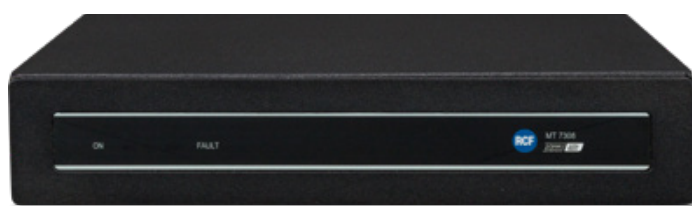
### SPECIFICATIONS

SPECIFICATIONS	MU 7100EN
POWER OUTPUT	8 x 80 W RMS @ 8 Ω
FREQUENCY RESPONSE	20 ÷ 20.000 Hz (± 1 dB)
DISTORTION (THD+N)	< 0,05% @ 1 kHz
SIGNAL/NOISE RATE:	> 96 dBA
INPUT SENSITIVITY	-40 ÷ +6 dBu (8 mV ÷ 1,55 V)
INPUT IMPEDANCE	20 K Ω BALANCED
PHANTOM POWER	12 V
POWER SUPPLY	100 V A.C MIN., 240 V A.C MAX. @ 50 - 60 Hz, 48 V DC
INPUT CONNECTORS	REMOVABLE SCREW TERMINAL

# MT 7308EN

p/n 17170159

## POWER AMPLIFIER MANAGER



MT 7308 is a power amplifiers manager unit of the DXT 7000 Voice Alarm system, suitable to control up to 8 additional power amplifiers and several speaker lines, according to EN 54-16 norm. It works connected to the MU 7100EN master unit. When speaker lines drive high power loads, it could be convenient to optimize the system configuration by using one or more dedicated power amplifiers dimensioned according the loads involved.

- Manages up to 8 power amplifiers
- 500 W maximum power of each amplifier
- Up to 8 zones managed
- PC software configuration



## LT 7208EN MKII

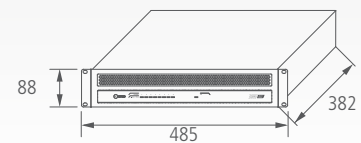
### LINE TRANSFORMER INTERFACE

p/n 17100015



The LT 7208EN unit has 8 internal transformers (80 W / each) to convert the 8 ohm loudspeakers outputs of MU 7100EN master unit into constant voltage lines (100 - 70 - 50 V) for loudspeakers equipped with line transformers. It allows to implement several power configurations, such as 8 x 80 W, 4 x 160 W and 2 x 320 W.

- 8 built-in line transformers
- Link/group MU 7100EN amplifiers
- Speakers line monitoring
- Supports different line voltage setting



#### SPECIFICATIONS

POWER OUTPUT	<b>LT 7208EN</b> 8 x 80 W RMS COMBINABLE
OUTPUT VOLTAGE	100 V (OR INTERNALLY COMMUTABLE 70 V or 50 V)
INPUT IMPEDANCE	8 $\Omega$ BALANCED
OUTPUT CONNECTORS	REMOVABLE SCREW TERMINAL

## AC 7212

### SPARE AMPLIFIER BOARD

p/n 17170152

AC 7212 is an additional board for the DXT 7000 Voice Alarm system that allows to add a spare amplifier unit. LT 7208EN override voltage output activates the AC 7212 relay in case of fault of the main amplifier and switch the spare amplifier output to the respective loudspeaker line.

- Used to add a spare amplifier
- Up to 4 boards connected to a LT 7208EN unit



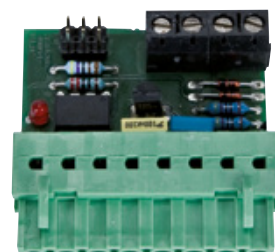
## SI 7120

### MONITORED GPI BOARD

p/n 17170153

SI 7120 is an additional board for the DXT 7000 Voice Alarm system. It can monitor the integrity of 2 speakers lines coming from master unit. In case of line open or shorted, it activates the related command.

- Line open or shorted fault detection
- Red LED signal
- Up to 2 devices connected to each MU 7100EN



## BM 7608

p/n 14322015

### DESK-TOP EMERGENCY MICROPHONE CONSOLE

BM 7608 is a desk-top emergency microphone console exclusively dedicated to DXT 7000 Voice Alarm system, and can be used both for live announcements and pre-recorded messages activation. It features complete self-diagnostic functionalities and system status reporting in compliance with EN 54-16 standard. Up to 8 consoles can be daisy-chained on each paging bus, for a total of 32 consoles.



- Live emergency announcements
- Pre-recorded messages activation
- Complete self-diagnostic
- Numeric keyboard
- Hi-quality cardioid microphone
- Modern design

#### SPECIFICATIONS

FREQUENCY RESPONSE (-3 dB)

AUDIO INPUT (AUX)

THD + N 1 kHz

CONNECTORS

AUDIO OUTPUT

EXTERNAL CONTROLLER

## BM 7608D

p/n 14322015

### DESK-TOP EMERGENCY MICROPHONE CONSOLE

BM 7608D is a desk-top emergency microphone console exclusively dedicated to DXT 7000 Voice Alarm system, and can be used both for live announcements and pre-recorded messages activation. It features complete self-diagnostic functionalities and system status reporting in compliance with EN 54-16 standard. Up to 8 consoles can be daisy-chained on each paging bus, for a total of 32 consoles.



- Live emergency announcements
- Pre-recorded messages activation
- Complete self-diagnostic
- Numeric keyboard and display
- Hi-quality cardioid microphone
- Modern design

#### BM 7608 - BM 7608D

200-17000 Hz (mic) - 50-17000 Hz (aux)

-14 ÷ 0dB (adjustable)

&lt;0,1%

RJ 45

3,5mm TRS connector

3 pin removable screw

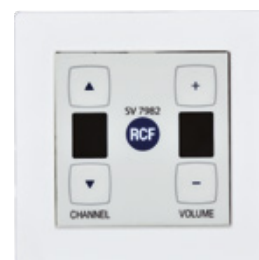
## SV 7982

p/n 17170140

### WALL-MOUNT REMOTE CONTROL

SV 7982 is a wall-mount remote control used as local audio control device. It can control a zone group volume and works as program selector. Connection to local or system bus using CAT5 or CAT6 cables.

- Zone group control
- Level control
- Program Selector
- CAT5 and CAT6 compatible



## LI 7903

p/n 17170141

### LOCAL INPUT DEVICE

LI 7903 is a local input device allowing the connection and routing of a local program source. It features 3 function buttons that can be individually programmed. To be wall mounted by using the accessories provided.

- Local audio source management
- 3 configurable buttons
- Suitable for wall-mount



## EL 7001

p/n 63531167

### END OF LINE

EL 7001 is a End Of Line terminator that allows accurate monitoring of speakers lines integrity, and it is suitable for DXT 7000 Voice Alarm system.

- Monitors speakers lines integrity



# BM 7608DFM | p/n 14322014

## DESK-TOP EMERGENCY MICROPHONE CONSOLE

BM 7608DFM is a desk-top emergency microphone console exclusively dedicated to DXT 7000 Voice Alarm system, and can be used both for live announcements and pre-recorded messages activation. It features complete self-diagnostic functionalities and system status reporting in compliance with EN 54-16 standard. Up to 8 consoles can be daisy-chained on each paging bus, for a total of 32 consoles.



- Live emergency announcements
- Pre-recorded messages activation
- Handheld microphone with PTT button
- Complete self-diagnostic
- Numeric keyboard and display
- Modern design

### SPECIFICATIONS

	BM 7608
FREQUENCY RESPONSE (-3 dB)	20017000 Hz (mic) - 50-17 000 Hz (aux)
AUDIO INPUT (AUX)	-14 ÷ 0dB (adjustable)
THD + N 1 kHz	<0,1%
CONNECTORS	RJ45
AUDIO OUTPUT	3,5mm TRS connector
EXTERNAL CONTROLLER	3 pin removable screw

# BM 7624D | p/n 14322018

## DESK-TOP EMERGENCY MICROPHONE CONSOLE

BM 7624D is a desk-top emergency microphone console exclusively dedicated to DXT 7000 Voice Alarm system, and can be used both for live announcements and pre-recorded messages activation. It features complete self-diagnostic functionalities and system status reporting in compliance with EN 54-16 standard. Up to 8 consoles can be daisy-chained on each paging bus, for a total of 32 consoles.



- Live emergency announcements
- Pre-recorded messages activation
- Complete self-diagnostic
- Numeric keyboard and display
- Hi-quality cardioid microphone
- Modern design

### SPECIFICATIONS

	BM 7624D
FREQUENCY RESPONSE (-3 dB)	20017000 Hz (mic) - 50-17 000 Hz (aux)
AUDIO INPUT (AUX)	-14 ÷ 0dB (regolabile)
THD + N 1 kHz	<0,1%
CONNECTORS	RJ 45
AUDIO OUTPUT	3,5mm TRS connector
EXTERNAL CONTROLLER	removibile a vite 3 pin

# PS 6648 | p/n 17100006

## POWER SUPPLY CERTIFIED EN 54-4



PS 6648 is a power supply unit suitable to get continuity power for EN 54-16 systems units like DXT 9000 and DXT 7000, and relevant complementary devices in case of mains power supply interruptions. It includes recharging and monitoring functions for the lead-acid batteries connected to it. It must be equipped with batteries with suitable capacity, dimensioned according to the system power absorption and to the evacuation requirements. According to EN 54-16 standard, it shall be installed into the same rack cabinet where there is the audio system with emergency purposes (or a system part) to which it is connected.

### SPECIFICATIONS

	PS 6648
POWER FACTOR	1.34
EFFICIENCY (DURING BATTERY CHARGING)	84%
BATTERY NOMINAL VOLTAGE	48 V
MAX. CURRENT FROM MAIN OUTPUTS	6 x 15 A
MAX. CURRENT FROM AUXILIARY OUTPUTS	4 x 2 A
MAXIMUM CAPACITY OF CONNECTED BATTERIES	200 Ah
MAX. CHARGING CURRENT	2 ÷ 8 A
MAX. RESISTANCE OF BATTERY CIRCUIT	30 ÷ 100 mOhm
BATTERY DISCONNECTION THRESHOLD	40.8 V
OPERATING VOLTAGE	220-240 V~ 50Hz

- 48 V batteries nominal voltage
- 6 main outputs to system's units
- 6 auxiliary outputs
- Battery circuit control
- PC software configuration and monitoring

## MX 3250/2

## MX 3250/4

## MX 3250/6

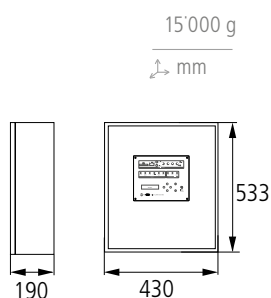
### AMPLIFIED MASTER UNIT



p/n 17170177

p/n 17170183

p/n 17170184



MX 3250 is the master unit of the Voice Alarm system DXT 3000, dedicated to small and medium size applications where an EN 54-16 certified system is required. It is equipped with powerful and exceptionally reliable Class D power amplifiers, able to provide up to 250 W of total power. Depending on the model, it is able to serve up to 6 independent zones. Moreover, the spare power amplifier facility is also available. The internal power supply is certified EN 54-4, and the back-up batteries can be host inside the cabinet, making the system a complete and extremely compact solution. Moreover, the on-board DSP platform allows optimizing environmental equalization, maximizing voice intelligibility and background music performance. The system can be completed with emergency microphone consoles BM 3804, BM 3804FM and ME 3801, and the buttons extensions BE 3806, allowing to add live announcements functionality.

- 250 W total power
- Up to 6 zones controlled
- DSP platform on-board
- Certified EN 54-16 and EN 54-4
- Emergency messages on monitored SD card
- Spare power amplifier facility
- Integrated audio source on front panel
- Wall mount or rack mount installation

## MX 3500/2

## MX 3500/4

## MX 3500/6

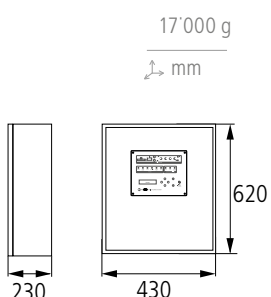
### AMPLIFIED MASTER UNIT



p/n 12100009

p/n 12100010

p/n 12100011



MX 3500 is the master unit of the Voice Alarm system DXT 3000, dedicated to small and medium size applications where an EN 54-16 certified system is required. It is equipped with powerful and exceptionally reliable Class D power amplifiers, able to provide up to 500 W of total power. Depending on the model, it is able to serve up to 6 independent zones. Moreover, the spare power amplifier facility is also available. The internal power supply is certified EN 54-4, and the back-up batteries can be host inside the cabinet, making the system a complete and extremely compact solution. Moreover, the on-board DSP platform allows optimizing environmental equalization, maximizing voice intelligibility and background music performance. The system can be completed with emergency microphone consoles BM 3804, BM 3804FM and ME 3801, and the buttons extensions BE 3806, allowing to add live announcements functionality.

- 500 W total power
- Up to 6 zones controlled
- DSP platform on-board
- Certified EN 54-16 and EN 54-4
- Emergency messages on monitored SD card
- Spare power amplifier facility
- Integrated audio source on front panel
- Wall mount or rack mount installation

#### SPECIFICATIONS

#### MX 3250

POWER	up to 250W distributed in 2, 4 or 6 zones
FREQUENCY RESPONSE	80 ÷ 16.000 Hz (± 1 dB)
DISTORTION (THD + N):	< 0,3% @ 1 kHz
SPEAKERS LINE OUTPUT:	100 V, 70 V
SIGNAL/NOISE RATE:	> 70 dBA
AC POWER:	220-240/115 V~ 50/60Hz selection internal
DC POWER:	24 V DC

#### MX 3500

POWER	up to 500W distributed in 2, 4 or 6 zone
FREQUENCY RESPONSE	80 ÷ 16.000 Hz (± 1 dB)
DISTORTION (THD + N):	< 0,3% @ 1 kHz
SPEAKERS LINE OUTPUT:	100 V, 70 V
SIGNAL/NOISE RATE:	> 80 dBA
AC POWER:	220-240/115 V~ 50/60Hz selection internal
DC POWER:	48 V DC

## DXT 3000 PLANNER

### VOICE ALARM SYSTEM DESIGN SOFTWARE

The software allows configuring small and medium VOICE-ALARM systems in accordance to the regulations (prescriptive method), using EN 54-24 loudspeakers and EN 54-16 management electronics of the RCF DXT 3000 Series (250W and 500W models; 2, 4 and 6 zones, in stand-alone or networked configuration) and related accessories.

Free software download from web site.

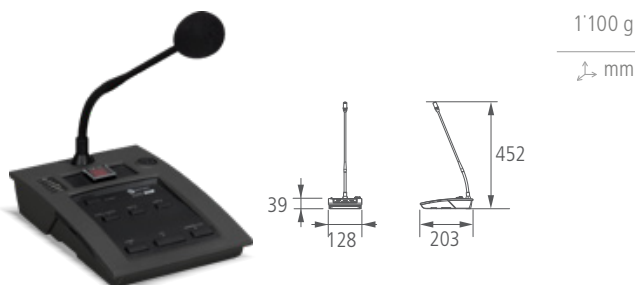




**BM 3804**

| p/n 14380028

## DESK-TOP EMERGENCY MICROPHONE CONSOLE

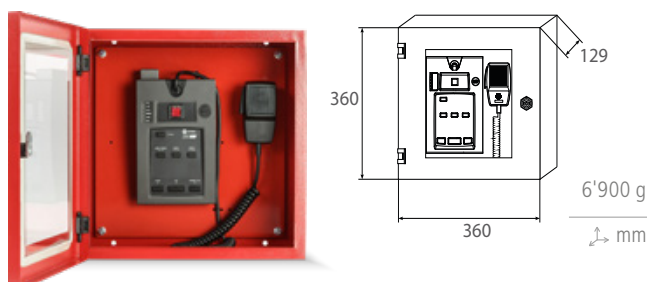


- Live emergency announcements
- Pre-recorded messages activation
- Complete self-diagnostic
- Powered by master unit
- Hi-quality cardioid microphone
- Robust metal case

**BM 3804FM**

| p/n 14380037

## FIREMEN EMERGENCY MICROPHONE CONSOLE

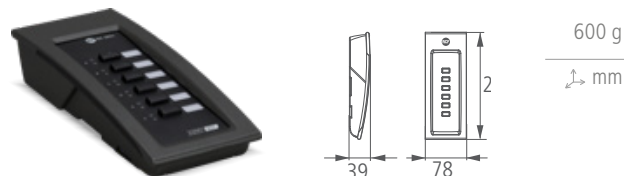


- Live emergency announcements
- Pre-recorded messages activation
- Handheld microphone with PTT button
- Complete self-diagnostic
- Powered by master unit
- Protected into a robust metal box

**BE 3806**

| p/n 14380036

## ADDITIONAL KEYBOARD FOR BM 3804

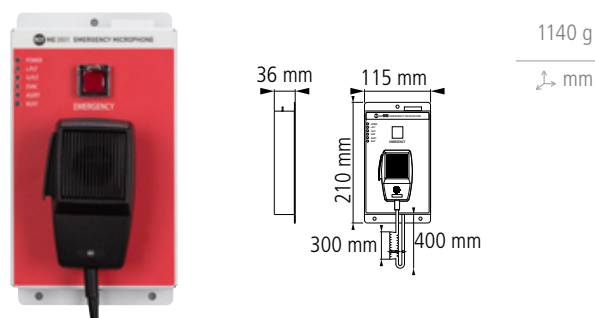


- Selective zones activation
- Zones status indication
- Powered by microphone console
- Robust metal case

**ME 3801**

| p/n 14380036

## WALL MOUNT EMERGENCY MICROPHONE



- Live emergency announcements
- General call functionality
- Handheld microphone with PTT button
- Complete self-diagnostic
- Powered by master unit
- Robust metal case

**EOL 3-9**

| p/n 17170176

## END OF LINE

- 20 Hz resonator
- 200 Ohm impedance
- Ceramic terminal with thermal fuse
- Plastic case UL94 V0
- To be used with RCF cables CV 215, CV 225

**IE 3008**

| p/n 12399015

## INTERLINK BOARD

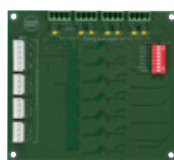


- Connects up to 8 units
- Master/slave architecture
- Fully redundant communication bus
- Powered by master unit
- General and zone alarm activation
- Global and local BGM inputs

**MG 3006**

| p/n 13360344

## MONITORED GPI BOARD

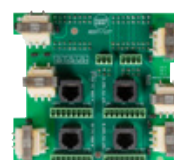


- Faults detection and reporting
- General and zone alarm activation
- Reset function
- Powered by master unit

**IT 3010**

| p/n 12399049

## TRANSFORMERS BOARD



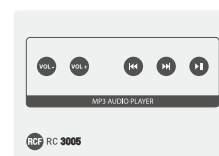
- Installation on IE 3008
- 6 line transformers
- Screw or RJ 45 connectors
- Power supply not required

**RC 3005**

| p/n 12399044

## WALL MOUNT REMOTE CONTROL

RC 3005 is a wall mount remote control for DXT 3000 Voice Alarm system that allows to manage the music source integrated in the master units front panel. It is designed with a universal wall mount mechanics.



# MULTI-ZONE SYSTEMS

Paging and background music to different zones.



## ZM 2124

| p/n 12135085

240W 6 ZONES POWERED MASTER UNIT



- Dual-bus system architecture
- System Paging consoles input for up to 6 selective devices daisy chained
- Auxiliary external amplifier input and output terminals to manage primary and secondary buses independently
- Volume attenuators and switches with indicators to send or not the secondary bus program
- Link to connect up to eight ZE 2200
- Dedicated wall mounting system remote control allows you to remote the main commands available on the master unit
- Priority indicator to show when any system priority circuit has been triggered
- Selectable chime generator is available on announcements

## ZM 2100

| p/n 17170166

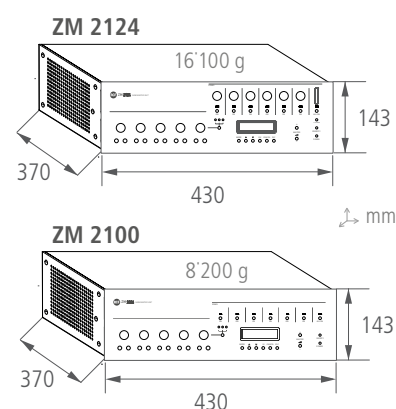
6 ZONES PRE-AMPLIFIED MASTER UNIT



- System Paging consoles input for up to 6 selective devices daisy chained
- Switches with indicators to send or not the secondary bus program
- Link to connect up to eight ZE 2200 6six-zone expansion units so to built-up paging systems in excess of 50 zones.
- Priority indicator to show when any system priority circuit has been triggered
- Selectable chime generator is available on announcements
- GPI and GPO logic ports are available for interface purposes with third parties systems and for monitoring feedback.
- Dedicated wall mounting system remote control allows you to remote the main commands available on the master unit
- RS 232 port for FW upgrade and communication/interface purposes

### SPECIFICATIONS

	ZM 2124	ZM 2100
INTERNAL AMPLIFIER MAX. OUTPUT POWER	240 W	-
INTERNAL AMPLIFIER OUTPUT VOLTAGE	100 – 70 V (direct), 100 V (6 zones)	-
FREQUENCY RESPONSE (+1 / -3 dB)	MIC: 60 Hz ÷ 15 kHz ; AUX: 50 Hz ÷ 20 kHz	
DISTORTION	< 1%	
INPUT SENSITIVITY MIC/LINE/AUX	1,5 mV (– 54 dBu) / 200 mV (– 12 dBu) / 200 mV (– 12 dBu)	
NOISE/SIGNAL RATIO INPUT MIC/LINE/AUX	> 60 dB / > 70 dB / > 75 dB	
INPUT IMPEDANCE MIC/LINE/AUX	600 Ω (balanced) / 600 Ω (balanced) / 10 kΩ (unbalanced)	
INPUTS	4 input mic. + 3 aux su RCA + 2 paging	
OUTPUTS	6 (power)	6 a 100 V / 0 dB depending on the config.
EMERGENCY INPUT SENSITIVITY	100 mV (unbalanced audio signal), 100 V line	
SIGNAL/NOISE RATIO EMERGENCY INPUT	> 70 dB	
EMERGENCY INPUT IMPEDANCE	600 Ω (balanced audio signal, input 100 mV)	
POWER SUPPLY	115 V / 230 V ac, 24 V dc	
MAX POWER CONSUMPTION	720 W	100 W



## BM 2006

| p/n 14322021

### PAGING MICROPHONE



- 6 zone buttons for selective announcements
- 1 general call button.
- Up to 6 consoles can be linked to the main unit.

## BE 2012

| p/n 14322022

### EXTENSION MODULE



- 12 buttons for selective announcements on the zones.
- Extension for BM 2006 console
- Up to 4 extensions can be linked to BM2006

#### SPECIFICATIONS

	BM 2600	BE 2012
POWER HANDLING	24 V c.c.	24 V c.c. (with BM 2006)
MAX ABSORBED POWER	50 mA (BM 2006 only) 130 mA (with 1 BE 2012) 210 mA (with 2 BE 2012) 290 mA (with 3 BE 2012) 370 mA (with 4 BE 2012)	80 mA (with one single BE 2012)
MAX. OUTPUT LEVEL	1 V (RMS)	-
FREQUENCY RESPONSE	100 Hz ÷ 15 kHz	-
VOICE FILTER	high pass, cutoff frequency: 315 Hz 6 dB / octave	-
DIMENSIONS (L, H, P)	108 mm, 55 mm, 240 mm (BM 2006 only)	108 mm, 55 mm, 240 mm
WEIGHT	1 kg (solo BM 2006)	0,7 kg

## ZE 2200

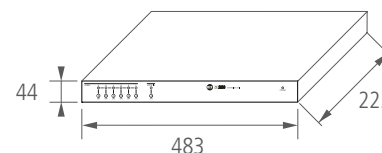
| p/n 17170167

### 6 ZONES EXPANSION UNIT



3400 g

↗ mm



- Direct link to ZM 2100 or ZM 2124 to expand the number of the system output zones till 54 by linking up to 8 devices in daisy-chain wiring topology
- 6 zone management based on ZM 2000 dual-bus system architecture: primary and secondary buses. Interconnection terminals for power amplifiers to manage primary and secondary buses independently
- GPI and GPO logic ports are available for interface purposes with third parties systems and for monitoring feedback.

#### SPECIFICATIONS

	ZE 2200
FREQUENCY RESPONSE (+1 / -3 dB)	50 Hz ÷ 20 kHz
AUX INPUT SENSITIVITY	1 V (+ 2 dBu)
SIGNAL/NOISE RATIO INPUT AUX	> 75 dB
IMPEDANCE INPUT AUX	10 kΩ (unbalanced)
INPUTS / OUTPUTS	6 a 100 V / 0 dB depending on the configuration
POWER SUPPLY	115 V / 230 V ac (50-60 Hz), 24 V
MAX POWER CONSUMPTION	15 W

## CONFERENCE SYSTEMS

Flexible, easy to use and install.  
Suitable for any small hall and council chambers.



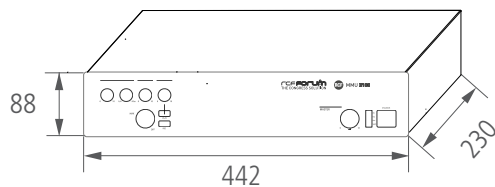
### MMU 3100

#### MASTER UNIT

p/n 17180042

5'200 g

mm



- Input to connect up to 80 microphone sets with volume and voice EQ controls
- Additional universal input on both XLR and removable screw terminals for lectern microphone or interview microphone or other sources with volume and voice EQ controls. Input can be set as mixed or with precedence on the system microphone consoles, controlled by an external command or voice activated; Phantom power available.
- Input and outputs connections to an external recorder/player device, PLAY / REC selector switches with LED indicators. Volume control and tone EQ on PLAY-OUT
- Teleconference dedicated input and output
- Sound reinforcement and recording system output
- Built-in power amplifier to feed the consoles speakers with volume selector
- Built-in 80W power amplifier output with volume control for additional constant voltage sound reinforcement speakers
- Connection to link two MMU 3100 units to increase microphones sets to 160 units
- 2U 19" standard rack, mounting ears provided

#### SPECIFICATIONS

##### POWER SUPPLY

MAXIMUM POWER CONSUMPTION

DIMENSIONS (W X H X D)

WEIGHT

##### DESK INPUT

SENSITIVITY

IMPEDANCE

##### INGRESSO PLAY

SENSITIVITY

IMPEDANCE

##### MIXER OUT

MAXIMUM POWER LEVEL

IMPEDANCE

##### RECORDING OUTPUT

FREQUENCY RESPONSE (-3 dB)

S/N RATIO

#### MMU 3100

115-230V / 50-60 Hz

240 W

442 x 88 x 230 mm

4 Kg

-7 dBu (max. + 13 dBu)

1  $\Omega$

-7 dBu (max. + 13 dBu)

20  $\Omega$

+21 dBu

100  $\Omega$

35 Hz ÷ 20 kHz

≥ 85 dBA



## MMS 3405P

### DELEGATE MICROPHONE SET

p/n 14322019



#### SPECIFICATIONS

MICROPHONE CAPSULE

TYPE

SENSITIVITY

FREQUENCY RESPONSE

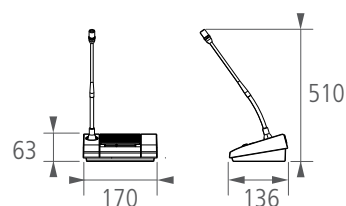
SPEAKER POWER

CONNECTORS

WEIGHT

1'000 g

mm



- Delegate Microphone Set MMS 3404D
- PRO-quality cardioid microphone with LED ring mounted on 46cm gooseneck
- Push-to-lock switch for microphone activation in mixed mode, with LED indicator
- Hi quality transducer for sound reinforcement purpose, automatically disabled when microphone is active
- RJ 45 terminals for daisy-chain link to MMS 3405P chairman console through CAT5 FTP cable
- Robust shielded enclosure suitable for desktop or semi-flush mounting

#### MMS 3404D

ELECTRET

HYPERCARDIOID

0.56 mV / Pa

70 Hz ÷ 18 kHz

1 W

RJ 45

1 kg

## MMS 3404D

### CHAIRMAN MICROPHONE SET

p/n 14322020



#### SPECIFICATIONS

MICROPHONE CAPSULE

TYPE

SENSITIVITY

FREQUENCY RESPONSE

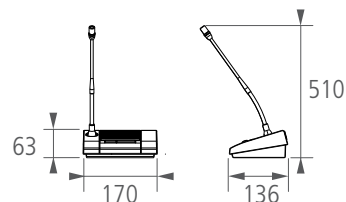
SPEAKER POWER

CONNECTORS

WEIGHT

1'000 g

mm



- Chairman Microphone Set MMS 3405P
- PRO-quality cardioid microphone with LED ring mounted on 46cm gooseneck
- Push-to-lock switch for microphone activation in mixed mode, with LED indicator
- Push-to-talk switch for microphone activation in priority mode, with LED indicator
- Hi quality transducer for sound reinforcement purpose, automatically disabled when microphone is active
- RJ 45 terminal for the connection to MMU 3100 master unit through CAT5 FTP cable
- Two RJ 45 connectors to daisy-chain delegate consoles branches through CAT5 FTP cable
- Robust shielded enclosure suitable for desktop or semi-flush mounting

#### MMS 3405P

ELECTRET

HYPERCARDIOID

0.56 mV / Pa

70 Hz ÷ 18 kHz

1 W

RJ 45

1 kg

## DMU 6100

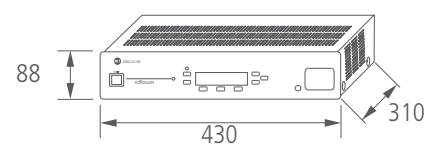
MASTER UNIT

p/n 17180010



5'600 g

mm



- Two universal inputs for connecting any additional sources such as a wireless microphone or a lectern microphone or any other complementary device, even a mixer-preamplifier
- Two inputs can be configured in different ways; for instance they can be mixed with the system audio, have priority on system microphone sets, one mixed and one priority etc.
- Dedicated IN and OUT connections are available echo-free for the link to a teleconference system
- VOX operation or command operation are available
- The command switch can be programmed to work as FORCED-ON or FORCED-OFF always through configuration menu
- REC-PLAY input and outputs associated to a switch allow the connection of any recorder/player.
- 4 additional Auxiliary Outputs are available for the independent recording of the 2 universal inputs and each of the 2 lines of microphone sets

## SPECIFICATIONS

OPERATING VOLTAGE

MAX. CURRENT

MAXIMUM POWER CONSUMPTION

OPERATING TEMPERATURE

SIZE (L X A X P)

WEIGHT

## MIC/LINE INPUTS

FREQUENCY RESPONSE (-3 DB)

HIGH-PASS FILTER

S/N RATIO

## PLAY INPUT

FREQUENCY RESPONSE (-3 DB)

S/N RATIO

## MAIN OUT

OUTPUT LEVEL

PRESENCE CONTROL

## SYSTEM OUTPUT

FREQUENCY RESPONSE (-3 DB)

S/N RATIO

## DMU 6100

100 ÷ 240 Vac (50 - 60 HZ)

1,7 A (230 V) / 3,5 A (115 V)

200 W

0 ÷ 50°C

430 X 88 X 310 mm

5,6 kg

50 Hz ÷ 20 kHz

12 dB / OCT (-3 dB AT 100 Hz)

≥ 65 dBA (MIC) / ≥ 85 dBA (LINE)

50 Hz ÷ 20 kHz

≥ 85 dBA

0 dBu (THD &lt;0.1%); MAX +20 dBu (THD 0,5%)

MAX 15 dB @ 2.1 kHz

35 Hz ÷ 20 kHz

≥ 85 dBA

## DEC 6104

EXPANDER BOARD

p/n 17180034



- Up to 180 DMS 6410 microphone consoles on 6 lines (4 line outputs are on the DEC 6104 board)
- The further 120 consoles shall be powered by the DPS 6202 power supply unit
- USB port to connect the system to a PC
- FORUM 6000 control software included
- RS 485 port (alternative to the USB port) for long distance control (up to 1.2 km) of the system through the PC software
- Anti-feedback processor, useful to avoid feedbacks due to loudspeakers too close to microphones, loudspeaker high volume and many open microphones at the same time. PLAY INPUT

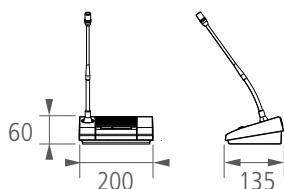
## DMS 6410

### MICROPHONE CONSOLE

p/n 17180011

1'000 g

mm



- Each console can be set to 1 of the 3 available modes: chairman (max. 3), delegate, interpreter (max. 2).
- Standard system: up to 60 consoles DMS 6410 (2 lines; 30 consoles per line connected in daisychain)
- Expanded system: up to 180 consoles DMS 6410 (6 lines; 30 consoles per line connected in daisychain).

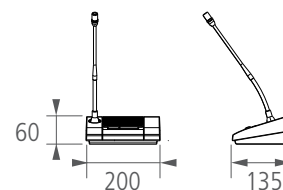
## DMS 6410X

### MICROPHONE CONSOLE REMOVABLE GOOSENECK

p/n 17180013

1'000 g

mm



- Standard system: up to 60 consoles DMS 6410 (2 lines; 30 consoles per line connected in daisychain)
- Expanded system: up to 180 consoles DMS 6410 (6 lines; 30 consoles per line connected in daisychain). The further 120 consoles can be added by installing the optional board DEC 6104 into the central unit DMU 6100 and connecting the external power supply unit DPS 6202
- 2 aux inputs, A and B, with XLR sockets, each configurable by means of DIP switches (PHANTOM, MIC / LINE, HIGH-PASS) and with a gain control and an enable / mute command
- Audio input PLAY and audio output SYSTEM for recording
- Audio input and output for teleconference
- Simultaneous / sequential translation (1 translated language)

#### SPECIFICATIONS

MICROPHONE TYPE	ELETTRETE, CARDIOIDE, (only for DMS 6410X) with gooseneck removable via xlr5 connector
FREQUENCY RESPONSE (-3 DB)	200 Hz ÷ 12 kHz
S/N RATIO	≥ 60 dBA
INTERNAL LIMITER	Up to + 32dB over 100% level
MIC AUTO-OFF SIGNAL THRESHOLD	-20 dB
VOLTAGE; CURRENT	48 V dc; nominale < 20 mA, max. 50 mA (internal Ispk. : max. volume)
INTERNAL AMPLIFIER POWER	1 W (THD <1%)
DIMENSIONS (BASE ONLY; L, H, P)	200 mm, 135 mm, 63 mm
WEIGHT	1,09 kg (DMS 6410) / 1.26 kg (DMS 6410X)
GOOSENECK MIC. LENGTH	440 mm
INCLUDED CONNECTION CABLE	pole special cable with RJ connectors, 2.5 m long

#### JACK OUTPUTS

MAX. POWER (HEADPHONES MODE)	60 mW su 16 Ω (<0,5% THD)
OUTPUT LEVEL (RECORDING MODE)	nominal:- 4 dBu (0,2% THD), max. + 5 dBu
FREQUENCY RESPONSE (-3 DB)	170 Hz ÷ 16 kHz

# MICROPHONES AND WIRELESS MICROPHONES

Optimised in the voice frequency range  
to guarantee maximum speech clarity.



MODEL	MC 5200	MD 7800
TYPE	UNI-DIRECTIONAL, BACK ELECTRET CONDENSER	Dynamic
POLAR PATTERN	Uni-directional	Supercardioid
FREQUENCY RESPONSE	50 ÷ 18000 Hz	60 ÷ 20000 Hz
SENSITIVITY (0 dB=1V/μbar, 1kHz)	- 58dB ± 3dB (0 dB=1V/μbar, 1kHz)	- 70 dB
PHANTOM PWR. SUPPLY	12 ÷ 48 V	-
CONNECTOR	5 poles XLR (m)	3 pole XLR (M)
ON/OFF SWITCH	Yes	Yes
USE	Speech (table top)	Speech, singing



MODEL	MC 4064	MC 5054
TYPE	Electret	Electret
POLAR PATTERN	Cardioid	Cardioid
FREQUENCY RESPONSE	50 ÷ 18.000 Hz	50 ÷ 14.000 Hz
SENSITIVITY (0 dB=1V/μbar, 1kHz)	- 58 dB	- 68 dB
PHANTOM PWR. SUPPLY	12 ÷ 52 V	9 ÷ 52 V
CONNECTOR	XLR 3 (M)	XLR 3 (M)
ON/OFF SWITCH	Yes	No
USE	Speech, conference	Speech, announcements





MODEL	BM 3001	BM 3003
TYPE	Electret	Electret
POLAR PATTERN	Cardioid	Cardioid
FREQUENCY RESPONSE	50 ÷ 18000 Hz	50 ÷ 18000 Hz
SENSITIVITY (0 dB=1V/ $\mu$ bar, 1kHz)	- 65 dB	- 65 dB
POWER SUPPLY	18 ÷ 48 V PHANTOM	115 - 230 V ac / 24 V dc
CONNECTORS	RJ 45	RJ 45
ON/OFF SWITCH	Yes	Yes
USE	Announcements	Announcements

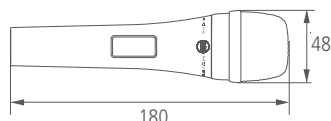


MODEL	BM 3022	BM 3014
TYPE	Electret	Dynamic
POLAR PATTERN	Cardioid	Cardioid
FREQUENCY RESPONSE	100 ÷ 12000 Hz	100 ÷ 12000 Hz
SENSITIVITY (0 dB=1V/ $\mu$ bar, 1kHz)	- 82 dB	- 80 dB
PHANTOM PWR. SUPPLY	115 - 230 V ac / 24 V dc	-
CONNECTOR	RJ 45	3 pole XLR (M)
ON/OFF SWITCH	Yes	Yes
USE	Announcements	Announcements

## MD 7800

p/n 14115013

### PROFESSIONAL DYNAMIC MICROPHONE



305 g  
mm

- Typical use: speech, singing
- Professional supercardioid dynamic microphone
- Anti-pop filter
- ON/OFF switch with lock
- Minimum handling noise
- 5 metre balanced and screened cable with 3 pole XLR connectors included
- Mic. holder for stands and soft bag included

#### SPECIFICATIONS

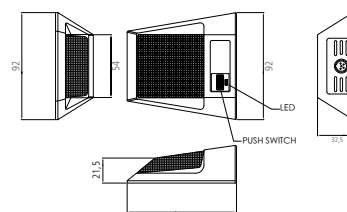
#### MD 7800

TYPE	DYNAMIC, SUPERCARDIOID
IMPEDANCE	600 $\Omega$ $\pm$ 30% (1 kHz)
SENSITIVITY	- 70 dB $\pm$ 3 dB (0 dB=1V/ $\mu$ bar, 1kHz)
FREQUENCY RESPONSE	60 $\div$ 20000 Hz
CONNECTORS	3 pole XLR (m)

## MC 5002

p/n 14115026

### DESK-TOP MICROPHONE



130 g  
mm

- Metal body and mesh
- Red LED lit when the microphone is ON
- Toggle switch for BOOST, FLAT and LOW CUT
- Phantom power supply (12  $\div$  48 V dc)
- 5 poles XLR connector
- Dimensions: 94 x 92 x 34mm
- Colour: RAL 9003 white (MT 3200)

#### SPECIFICATIONS

#### MC 5200

TYPE	UNI-DIRECTIONAL, BACK ELECTRET CONDENSER
IMPEDANCE	3000 $\Omega$ $\pm$ 30% (at 1kHz)
FREQUENCY RESPONSE	50 $\div$ 18000 Hz
SENSITIVITY	- 58dB $\pm$ 3dB (0 dB=1V/ $\mu$ bar, 1kHz)
CONNECTORS	5 poles XLR (m)

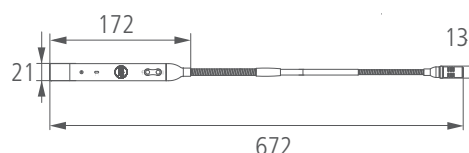
## MC 4064

p/n 14115025

### GOOSENECK MICROPHONE (DESK-TOP / ON FLOOR STAND)



200 g  
mm



- Double joint gooseneck, 672 mm long
- Installation on desks (with or without hole), lecterns, mic. floor stands
- It has two switches (PUSH, LOCK), a red ring lamp that is lit when the microphone is activated, a high-pass filter with a switch to cut frequencies below 100 Hz.
- Phantom power supply (12  $\div$  52 V)
- 3 m screened and balanced cable with XLR connectors for linking to a mixer / amplifier, with 2 additional wires for command
- Polyurethane foam wind screen

#### SPECIFICATIONS

#### MC 4064

TYPE	ELECTRET, CARDIOID
IMPEDANCE	600 $\Omega$ BALANCED
FREQUENCY RESPONSE	50 $\div$ 18000 Hz
SENSITIVITY	- 58 dB $\pm$ 3 dB (0 dB=1V/ $\mu$ bar, 1kHz)
CONNECTOR	3 pole XLR (m)

## MC 5054

p/n 14115024

### FLEXIBLE UNIVERSAL MICROPHONE

- Flexible microphone, 445 mm length. Installation on microphone plug with XLR connector. Male 3 pin XLR output connector. Phantom power 9 V to 52 V.
- Polyurethane anti wind foam. Electret, Cardioid.
- Impedance: 200  $\Omega$   $\pm$  30% (at 1.000 Hz).
- Frequency response: 50  $\div$  18.000 Hz.
- Sensitivity: -65 dB  $\pm$  3 dB (0 dB = 1 V/ $\mu$ bar 1.000 Hz)
- Dimensions: diameter 19x540 mm.



TX 4016

p/n 14250008

UHF TRUE DIVERSITY SYSTEM - HAND HELD TX



PX 4116

p/n 14250010

UHF TRUE DIVERSITY SYSTEM - POCKET TX



Each receiver has 2 antennas for smart switching diversity control (the higher level radio signal is automatically selected), greater reliability and coverage, reduced risks of breakdowns and interferences. The operating frequency of the transmitter can be automatically searched thanks to the receiver auto-scan function. Of course, it is possible to match the transmitter channel to the receiver one manually. 120 channels are available (10 groups, each with 12 different frequencies). It is possible to use up to 16 channels simultaneously (when having 16 wireless microphone kits).

SPECIFICATION

TX 4016 - PX 4116

CHANNEL	SINGLE (OUT OF 144 FREQUENCIES)
TYPE	(PLL) UHF, 'DIVERSITY' RECEIVER
FREQUENCY BAND	UHF, 638 MHZ ÷ 662 MHZ
FREQUENCY RESPONSE	50 HZ ÷ 50 KHZ (± 3 DB)
FREQUENCY STABILITY	± 0.005 % (-10 ÷ 50°C)
T.H.D.	< 0.8% (1 KHZ)
MODULATION MODE	FM (F3E)
DYNAMIC	> 100 DB
<b>RX 4016 RECEIVER</b>	
BALANCED AUDIO OUTPUT	1 V, ± 35 KHZ DEVIATION
UNBALANCED AUDIO OUTPUT	750 MV, ± 35 KHZ DEVIATION
S/N RATIO	> 90 DB
RF SENSITIVITY	- 100 DBM / 30 DB SINAD
POWER SUPPLY	THROUGH EXTERNAL 15 V DC (0.5A) ADAPTER
DIMENSIONS	210 MM (W), 44 MM (H), 155 MM (D); (8.2" X 1.7" X 6.1")
NET WEIGHT	0.99 KG
<b>TRANSMITTER / HANDHELD MICROPHONE TX 4000 - BODY PACK TRANSMITTER PX 4100</b>	
RF OUTPUT POWER	1 - 3 - 10 mW
FREQUENCY RESPONSE	(TX 4000) 90 Hz ÷ 12 kHz (± 3 DB) (PX 4100) 50 Hz ÷ 15 kHz (± 3 dB)
TX 4000 TYPE	DYNAMIC, CARDIOID
PX 4100 TYPE	ELECTRET MICROPHONE
TONE FREQUENCY	30-33 kHz
MAX. DEVIATION	± 35 kHz
BATTERIES	2 x TIPO 'AA' (1,5 V; NON RECHARGEABLE)
DIMENSIONS TX 4000	277 mm (L), Ø 36.5 m
DIMENSIONS TX PX 4100	97 mm (L), 68 mm (H), 22 mm (P)
NET WEIGHT	(TX 4000) 0,25 Kg - (PX4100) 0,01 Kg

HE 2006

p/n 14115023

'HEADSET' MICROPHONE

'Headset' type, reliable and light.  
Cardioid electret capsule.  
It ensures an excellent isolation from environmental noise.  
Typical use: dancers, singers, djs, aerobic instructors, presenters, actors, etc.  
The optimal use of the microphone requires a distance between the capsule and mouth of about 25 mm.



## BM 3001

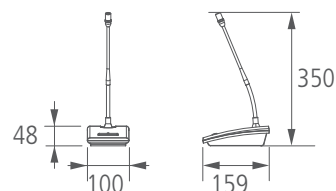
### PAGING MICROPHONE

p/n 14322008



600 g

↕ mm



- Plastic body with 300 mm gooseneck
- PTT button with LED
- Power supplied by 'Phantom' ( $18 \div 48$  V dc)
- Ready for direct connection to amplifiers ES 3080, ES 3160-II, ES 3323-II, AM 2160, AM 2320, AM 2080, UP 2161, UP 2321, UP 2081.
- Chime activation on ES 3080, ES 3160-II, ES 3323-II, AM 2160, AM 2320, AM 2080
- Polyurethane foam wind screen
- 5 m connecting cable (with RJ 45 plugs) included

#### SPECIFICATIONS

TYPE

IMPEDANCE

FREQUENCY RESPONSE

SENSITIVITY

CONNECTORS

#### BM 3001

ELECTRET, CARDIOID

470  $\Omega$  BALANCED

50  $\div$  18000 Hz

- 65 dB  $\pm$  3 dB (0 dB=1V/ $\mu$ bar, 1kHz)

8 pole RJ 45

## BM 3014

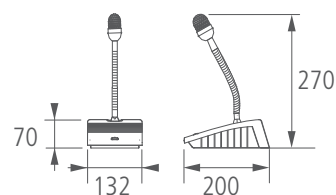
### PAGING MICROPHONE

p/n 14320135



1'600 g

↕ mm



- Plastic body with 320 mm gooseneck
- Pushbutton for momentary microphone activation
- 5 m screened and balanced cable with XLR connectors for linking to a mixer / amplifier, with 2 additional wires for command

#### SPECIFICATIONS

TYPE

IMPEDANCE

FREQUENCY RESPONSE

SENSITIVITY

CONNECTORS

#### BM 3014

DYNAMIC, CARDIOID

500  $\Omega$  BALANCED

100  $\div$  12000 Hz

- 71 dB  $\pm$  3 dB (0 dB=1V/ $\mu$ bar, 1kHz)

3 pole XLR

## BM 3003

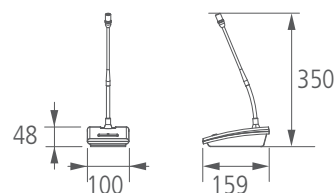
p/n 14322012

### 3 ZONES PAGING MICROPHONE



700 g

mm



- Plastic body with 300 mm gooseneck
- PTT button with LED, Zone buttons with LED
- Power supplied by 'Phantom' ( $18 \div 48$  V dc) for the BM 3003 directly connect to the ES 3323
- It can be directly connected to ES 3323 amplifiers
- External power supply AC AD2405 to be used on all BM 3003 connect to other BM 3003
- Lines of max. 12 BM 3003 paging microphones
- Polyurethane foam wind screen
- 5 m connecting cable (with RJ 45 plugs) included

#### SPECIFICATIONS

SPECIFICATIONS	
TYPE	ELECTRET, CARDIOID
IMPEDANCE	470 $\Omega$ BALANCED
FREQUENCY RESPONSE	50 $\div$ 18000 Hz
SENSITIVITY	- 65 dB $\pm$ 3 dB (0 dB=1V/ $\mu$ bar, 1kHz)
CONNECTORS	2 x 8 pole RJ 45

#### BM 3003

## BM 3022

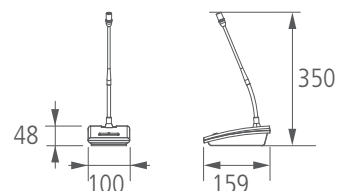
p/n 14322013

### PRE-AMPLIFIED DESK TOP MICROPHONE



600 g

mm



- Gooseneck microphone with hi-quality unidirectional electret capsule
- Direct connection to power amplifiers input through CAT5 cable
- Adjustable line output with RJ45 connector
- Switchable automatic gain control (AGC)
- Up to 30 BM 3022 paging microphones can be linked in a 'daisy-chain'
- Selectable mixing, interlocking or priority mode among devices
- When activating a microphone, the announcement can be preceded by a chime.

#### SPECIFICATIONS

SPECIFICATIONS	
TYPE	ELECTRET
IMPEDANCE	130 $\Omega$ BALANCED
FREQUENCY RESPONSE	200 $\div$ 7000 Hz
SENSITIVITY	- 65 dB $\pm$ 3 dB (0 dB=1V/ $\mu$ bar, 1kHz)
CONNECTORS	2 x RJ 45 (IN - OUT)

#### BM 3022



## AC MIC DK

TABLE BASE FOR  
MICROPHONE MC 4064

p/n 13360247



- Standard connection 5/8
- Diameter: 160 mm
- Weight: 1 Kg

## A 504-N

MIC SUPPORT

p/n 14380014



Microphone support (5/8" thread).  
Suitable for use with the MD 7600, MD 7800 microphones on AC S64FL, AC S62FL and AC S50DK supports.

## AC 503FS

MC 5054 ADAPTOR FOR FLOOR  
MICROPHONE STAND

p/n 14380033



Universal extended metal stand. Female 3 pins XLR microphone connector.  
Installation with screws on a table, a bookstand or a microphone stand.  
Button for stable and unstable microphone insertion.  
Screw thread 5/8" x 27 mm.  
1,5 m cable (with 3 pin, male XLR) for amplifier connection  
Dimensions: diameter 20,5 x 199,3 mm.

## AC 502LC

MC 5054 ADAPTOR FOR  
PLATFORMS

p/n 14380034



Universal table metal support. Female 3 pin XLR connector.  
Installable on a bookstand with or without a cable hole.  
Welding terminal for cable. Dimensions: diameter 45x63 mm.

## OT 3500

TRANSFORMER FOR  
DISTRIBUTED SYSTEMS

p/n 17120056



Mumental insulation transformer with removeable screw terminals. Can work with 0dB signals.

## IT 4000

INPUT TRANSFORMER 100V TO 0DB

p/n 13360341



Allows the connection of a 100V (or 70V) passive speakers line directly to the audio input (0 dBu) of an active speaker. Fixing of input and output cables on screw terminals. Metal box, colour black.

## AC 501DK

DESKTOP MIC BASE XLR IN/OUT

p/n 14380035



AC 501DK is a desktop microphone base with input and output XLR connectors.  
It offers three different functional modalities:  
LOCK (bistable on/off button);  
TALK (microphone open with button pressed only);  
MUTE (mute active with button pressed).

## A 507

MIC. SUPPORT  
p/n 14310008



Universal quick-release clamp holder for holding cylindrical, conical, and polyhedron shaped microphones.  
Clamp opening: from 15 to 38 mm. Suitable for use with TX 1000 / TX 1600 / TX 516 wireless mic. on AC S64FL, AC S62FL and AC S50DK supports.

## CA 5XX

MIC. CABLE  
p/n 14340017



5 m microphone cable with XLR connectors.

## AC S50DK

DESKTOP STAND  
p/n 14380011



Desk top microphone stand with die-cast base, suitable for 5/8" or 3/8" thread. Tilting telescopic rod, adjustable from 38 cm to 58 cm.  
Weight: 2 Kg. Height: min/max 38cm/58cm. Base dimensions 16x18cm

## AC S76FL

FLOOR STAND  
p/n 14380027



Floor microphone stand with folding base, suitable for 5/8" thread. Joints and legs in die-cast aluminium. Steel telescopic rod, adjustable from 96 cm to 156 cm. Tilting steel boom-arm, adjustable from 46 cm to 86 cm. Damping base with 58 cm limited opening diameter. Weight: 3.2 Kg. Length once folded: 102 cm

## AC XLR-3M3F

CONNECTORS  
p/n 13360102



XLR Connectors KIT:

- 3 XLR Female connector with nickel body and silver contacts
- 3 XLR Male connector with nickel body and silver contacts

## AC AD 2405

24 V ADAPTOR  
p/n 14380022



Power adaptor for 24 V DC paging microphones  
- input 230V AC  
- output 24 V DC - 500 mA

## AR 1620

RACK MOUNTING ACCESSORY  
p/n 17360031



1U 19" rack kit suitable for 1 or 2 receivers  
(models: RX 1000 or RX 1600).

## A 53

ADAPTER FROM 3/8 TO 5/8  
p/n 14380029



S50DK AC microphone holder adapter  
- Kit of 10 pieces

## MP 300

### OPERATOR/USER INTERCOM SYSTEM KIT

p/n 12170094

- MP 300 system allows conversations between an operator and users /clients when these are separated by a safety glass that reduces the sound transmission
- Operates in full-duplex mode, automatic or mixed-switching depending on the ambient noise in the room / hall served.
- On request, each single component can be purchased separately

MODEL	P/N	DESCRIPTION	QUANTITY
MP 341	12401005	Control unit / amplifier	1
MP 321	12401008	Operator microphone console with activation keys	1
MP 302	12401007	User microphone	1
MP 301	12401006	Loudspeaker	4



#### SPECIFICATIONS

MICROPHONES

AMPLIFIER POWER

ADDITIONAL LOUDSPEAKER OUTPUT

POWER SUPPLY (AC)

POWER SUPPLY (DC)

#### MP 300

ELECTRET, UNIDIRECTIONAL

2 W (per each line)

1 W - 8  $\Omega$

230 / 115 V (50 / 60 Hz)

12 V

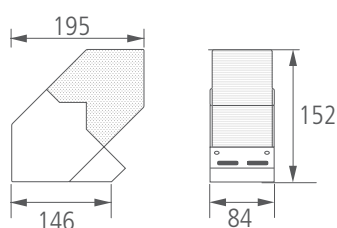
## MP 321

### OPERATOR MICROPHONE

p/n 12401008

800 g

mm



- Electret microphone with unidirectional polarn pattern, housed into an anthracite grey die-cast aluminium alloy and protected by a painted stainless steel grille
- Equipped with 2 push-buttons to activate the operator-user line and the user-operator line respectively
- A LED indicates which line is activated
- It can be remote controlled (e.g. through a pedal switch)

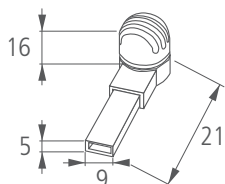
## MP 302

### USER MICROPHONE

p/n 12401007

3,5 g

mm



- Electret microphone having high sensitivity and an unidirectional polar pattern, suitable for clear voice reproduction even in very noisy rooms / halls
- Its compact white plastic enclosure has a very sleek contemporary design
- MP 302 has a slot (close to the audio cable output) for the insertion of a standard wiring duct
- It can be easily attached on safety glasses through bi-adhesive tape
- 5 m balanced and screened cable for connection to the MP 341 control unit / amplifier

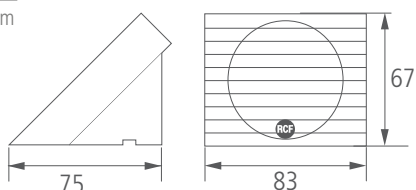
## MP 301

### LOUDSPEAKERS

p/n 12401006

120 g

mm



- MP 301 loudspeakers shall be installed near the microphones of the operator and users
- White plastic body
- 70 mm loudspeaker suitable for voice reproduction
- Loudspeakers can be fixed by using biadhesive tape (included)
- 5m loudspeaker cables for connection to the MP 341 control unit / amplifier

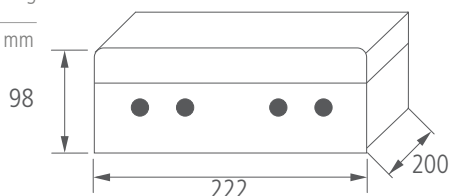
## MP 341

### CONTROL UNIT / AMPLIFIER

p/n 12401005

1'400 g

mm



- It is the system main unit that manages audio signals coming from microphones.
- 4 switches inside (with LEDs) allow to select one of the 4 operating modes, according to the noise level at the operator's microphone and at the users' microphone.
- A switch for each line makes it possible to select either the 'direct' function (the line is always activated) or the 'switched' mode (the line is momentary activated when speaking). If both lines are set to the 'switched' mode, only one can be activated at a time.
- The other 2 switches enable the 'forced volume' function of each line, useful whenever it is necessary to increase (+ 10 dB) the audio level
- It is possible to adjust the listening volume of each position independently, as well as the trigger threshold level of each microphone (factory preset)
- Its plastic enclosure can be wall mounted

# AMPLIFIERS, PREAMPLIFIERS AND AUDIO SOURCES

For constant voltage systems or professional audio applications.

CD players, Radio receivers, message players for every hi-fidelity listening need.



MODEL	ES 3323-II	ES 2160	ES 3080
OUTPUT RMS POWER	320 W	160 W	80 W
OUTPUT	4 Ω (2 W max), 100 V, 70 V	4 Ω, 100 V, 70 V	4 Ω, 100 V, 70 V
FREQUENCY RESPONSE	50 ÷ 18.000 Hz	50 ÷ 18.000 Hz	50 ÷ 18.000 Hz
DISTORTION @ 1 kHz	< 0.3%	< 0.3%	< 0.3%
SIGNAL TO NOISE RATIO	> 65 dB	> 65 dB	> 60 dB
INPUT SENSITIVITY	(MIC) -60 dBu; (AUX) -80 dBu	(MIC) -60 dBu; (AUX) -80 dBu	(MIC) -62 dBu; (AUX) -18 ÷ +20 dBu
INPUT IMPEDANCE	(MIC) 10 KΩ; (AUX) 20 KΩ	(MIC) 10 KΩ; (AUX) 20 KΩ	(MIC) 10 KΩ; (AUX) 20 KΩ
INPUT CONNECTORS	1 x XLR, 2 x RJ45, 4 Term., 1 RCA	1 x XLR, 2 x RJ45, 4 Term., 1 RCA	1 x XLR, 1 x RJ45, 2 Term, 1 RCA
OUTPUT CONNECTORS	4 x RCA, Screw terminal	4 x RCA, Screw terminal	2 x RCA (mono)



MODEL	AM 2080	AM 2160 - AM 2320	UP 2321
OUTPUT RMS POWER	80 W	160 W / 320 W	160 W / 320 W
OUTPUT	4 Ω, 100 V, 70 V	4 Ω, 100 V, 70 V	4 Ω, 100 V, 70 V
FREQUENCY RESPONSE	50 ÷ 18.000 Hz	50 ÷ 18.000 Hz	50 ÷ 18.000 Hz
DISTORTION @ 1 kHz	< 0.3%	< 0.3%	< 0.3%
SIGNAL TO NOISE RATIO	> 60 dB	> 60 dB	> 80 dB
INPUT SENSITIVITY	(MIC) -62 dBu; (LINE) 0 dBu	(MIC) -58 dBu; (LINE) 0 dBu	(MIC) -58 dBu; (LINE) 0 dBu
INPUT IMPEDANCE	(MIC) 10 KΩ; (AUX) 20 KΩ	(MIC) 10 KΩ; (AUX) 20 KΩ	(MIC) 10 KΩ; (AUX) 20 KΩ
INPUT CONNECTORS	1 x XLR, 2 x RJ45, 4 Term.	1 x XLR, 2 x RJ45, 4 Term., 4 RCA	1 x XLR, 1 x RJ45, 1 Screw terminal
OUTPUT CONNECTORS	4 x RCA, Screw terminal	4 x RCA, Screw terminal	1 x RCA, Screw terminal





MODEL	UP 2162	AM 1125	UP 4240
OUTPUT RMS POWER	2 x 80W / 2 x 160 W	120 W / 60 W	120 W/240W
OUTPUT	4 $\Omega$ , 100 V, 70 V	4 $\Omega$ , 100 V, 70 V	4 $\Omega$ , 100 V, 70 V
FREQUENCY RESPONSE	50 ÷ 18.000 Hz	50 ÷ 15.000 Hz	60 ÷ 15.000 Hz
DISTORTION @ 1 kHz	< 0.3%	< 1.5%	< 1,5%
SIGNAL TO NOISE RATIO	> 80 dB	> 85 dB	> 80
INPUT SENSITIVITY	(MIC) -58 dBu; (LINE) 0 dBu	(MIC) -54 dBu; (LINE) -12 dBu	1 V (+ 2 dBu)
INPUT IMPEDANCE	(MIC) 10 K $\Omega$ ; (AUX) 20 K $\Omega$	(MIC) 600 $\Omega$ ; (AUX) 10 K $\Omega$	10 k $\Omega$ (bilanciato)
INPUT CONNECTORS	1 Screw terminal	MIC/LINE with XLR connector, 'Phantom' power supply, priority by contact or 'VOX'	Balanced 'line' level AUDIO INPUT (terminal strip)
OUTPUT CONNECTORS	1 x RCA, Screw terminal	Screw terminal	Screw terminal



MODEL	UP 8501	UP 8502	UP 8504
OUTPUT RMS POWER	1 X 500 W	2 X 250 W	4 X 125 W
OUTPUT	100 V, 70 V	100 V, 70 V	100 V, 70 V
FREQUENCY RESPONSE	20 Hz ÷ 20 kHz	20 Hz ÷ 20 kHz	20 Hz ÷ 20 kHz
DISTORTION @ 1 kHz	< 0.3%	< 0.3%	< 0.3%
SIGNAL TO NOISE RATIO	> 86 dB	> 86 dB	> 86
INPUT SENSITIVITY	0 DBU (775 MV, MAX. 7 V)	0 DBU (775 MV, MAX. 7 V)	0 DBU (775 MV, MAX. 7 V)
INPUT IMPEDANCE	10 K $\Omega$	10 K $\Omega$	10 K $\Omega$
INPUT CONNECTORS	Screw terminal	Screw terminal	Screw terminal
OUTPUT CONNECTORS	Screw terminal	Screw terminal	Screw terminal

## ES 3323 II

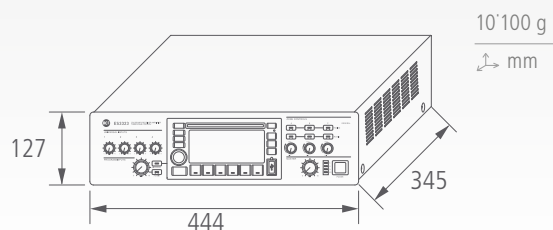
p/n 12135105

320 W, 3-ZONE MIXER AMPLIFIER,  
CD/USB/BLUETOOTH MP3 PLAYER



- CD-USB/MP3 Player / FM tuner / Mixer Amplifier
- Bluetooth connection with external devices
- IR Remote control for CD - USB/MP3 player & tuner functions
- Full digital technology amplifier 320 W RMS, 100V-70V
- Low impedance (min. 4  $\Omega$ ) 2 W output for a monitor loudspeaker is available
- 4 universal inputs with phantom facility, Presence Control and per-channel High-Pass filters
- RJ45 connectors on input 2 and 3 for connection to BM3001 and BM 3003 microphone
- Screw terminal connections, additional XLR and RJ45 input connections available
- Configurable Priority settings, VOX facility on input 1
- Selectable aux input for music source with volume and tone controls
- USB port on front panel allows reproduction of MP3 files from a memory stick
- Music On Hold and PRE outputs
- The 3 PAGING buttons to select zones to be paged by either the channel 1 or 4
- GENERAL call button is available
- The 3 MUSIC buttons turn the music on in the respective zones
- Digital Chime and Siren built-in generator, activation through dry contact
- Status / Priority / Audio Level LED indications
- Link to a external amplifier (i.e. RCF UP 2321) to keep the music in the zones that are not paged

### REAR VIEW



### SPECIFICATIONS

ES 3323 II	
OUTPUT POWER	320 W
FREQUENCY RESPONSE	50 - 18.000 Hz ( $\pm 3$ dB)
DISTORTION (THD+N)	< 0,3% @ 1 kHz
SPEAKER OUTPUTS	100 V, 70 V, 4 $\Omega$ (MONITOR MAX 2 W)
AUXILIARY OUTPUTS	600 $\Omega$ , -1 dBu (690 mV)
SIGNAL TO NOISE RATIO	> 65 dB (INPUTS 1-4); > 75 dB (AUX IN); > 85 dB (MAIN IN)
INPUT SENSITIVITY	(MIC) -58 dBu (1 mV); (MIC PHANTOM) -28 dBu (30 mV); (AUX) -11 $\div$ +10 dBu (0.2 $\div$ 2.5 V)
INPUT IMPEDANCE	(MIC) 10 K $\Omega$ ; (AUX) 20 K $\Omega$ (MIC) 10 K $\Omega$ ; (MIC PHANTOM) 6.5 K $\Omega$ ; (LINE): 10 K $\Omega$ ; (AUX): 20 K $\Omega$
SUPPLY VOLTAGE	220 $\div$ 240 V / 110 $\div$ 120 V (50 / 60 Hz) INTERNAL SETTING
POWER CONSUMPTION	600 W
INPUT CONNECTORS	1 x XLR, 2 x RJ 45, 4 x TERMINAL, 2 x RCA stereo
OUTPUT CONNECTORS	4 x RCA (MUSIC ON HOLD, PRE-OUT, INTERNAL PROGRAM), SCREW TERMINALS FOR CONSTANT VOLTAGE LINES

## BM 3003

p/n 14322012

3 ZONES PAGING MICROPHONE

The paging microphone allows to make selective calls to 3 zones and is the ideal complement of the ES 3323 mixer amplifier (through CAT 5 cable and RJ 45 connector)



## AR 3000

p/n 13360101

RACK SUPPORT

Rack mounting support, 3U.



## ES 2160

p/n 12100053

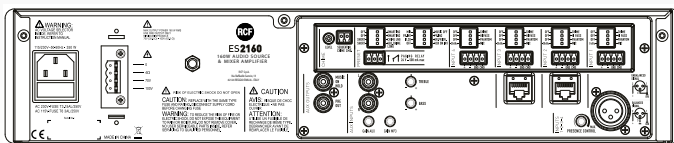
### MIXER-AMPLIFIER WITH MP3 PLAYER AND BLUETOOTH



ES 2160 is a 160 W class-D mixer-amplifier, with 4 mic-line audio inputs on removable connectors, an MP3 player with Bluetooth and an aux input for an external music source. The amplifier output is available both for low and high impedance speakers. Inputs 2 and 3 also have a RJ 45 socket for quick connection of a single RCF BM 3001 paging microphone (through CAT5 cable). ES 2160 offers several functions such as signal detection circuit ('VOX'), priority (through an external command), music on hold output, high-pass filters for improving speech intelligibility and tones controls.

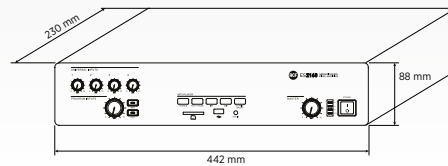
- 160 W power amplifier
- 4 mic-line inputs with phantom facility
- MP3 player and Bluetooth connectivity
- Low and high impedance speakers output
- BM 3001 connector on inputs 2 and 3
- VOX facility and priority command
- High-pass filters
- Tone controls on AUX inputs
- Music on hold output

#### REAR VIEW



6'450 g

mm



#### SPECIFICATIONS

Amplifier Class:	D
Number of channels:	1
Power output per channel (@ 4 ohm):	160 W RMS
Frequency Response (-3dB):	50 Hz ÷ 14 Hz
Distortion (THD+N) @ 1 kHz nominal power:	<0.3 %
Total number of inputs:	8
Balanced:	7
Unbalanced:	2
Mono:	7
Stereo:	2
Line inputs:	2
Mic+Line inputs:	4
Mic+Line connectors:	Euroblock, XLR
Mic+Line Phantom:	32 V DC
Paging inputs:	2
General Purpose Inputs (GPI):	2
Signal output connectors:	RCA
Power output connectors:	Euroblock
Tone controls:	Yes
High-pass filter:	150 Hz
Controls:	Configuration DIP switch, Priority, Music on hold, Chime tone
Protections:	Cooling, Short circuit, Thermal, DC, Fuses

#### ES 2160

## BM 3001

### MICROPHONE CONSOLE

p/n 14322008

Dedicated microphone console with Cat5 connection cable and RJ45 connector.



## AR 3000

### RACK SUPPORT

p/n 13360101

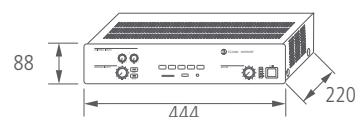
Rack mounting support, 3U.



## ES 3080

p/n 12135107

### MIXER-AMPLIFIER WITH AUDIO SOURCE


3'800 g  
mm


- Audio source with 80W power amplifier.
- MP3 player controlled from the front panel.
- MP3 inputs: USB flash, SD card, AUX jack 3.5mm.
- Bluetooth connection with external devices
- 2 universal inputs on removable screw-terminals and 1 AUX input.
- Configurable priority settings, VOX facility on input 1
- Auxiliary output MUSIC ON HOLD to send the audio signal to external amplifiers or telephone switchboards.
- PRE OUT connector for additional power amplifiers.
- HI-PASS control (inputs 1 and 2)
- Auxiliary input on RCA connector and front panel are equipped with independent tone controls (bass and treble) and gain.
- Status LEDs on the front panel (ON, PROT) giving a complete feedback on amplifier and power supply status.
- LEDs on the front panel (PRIOR) indicating the priority circuit activity and the audio signal level (SIG/PK).
- Integrated alert sound generator configurable as single or double tone.
- Rack mount kit for 2 units amplifiers included

#### SPECIFICATIONS

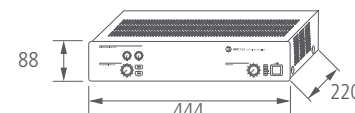
OUTPUT POWER	80 W
FREQUENCY RESPONSE	50 - 18.000 Hz ( $\pm 3$ dB)
DISTORTION (THD+N)	< 0,3% @ 1 kHz
SPEAKER OUTPUTS	100 V, 70 V, 4 $\Omega$
SIGNAL TO NOISE RATIO	> 60 dB (INPUTS 1-2); > 80 dB (AUX IN)
INPUT SENSITIVITY	(MIC) -62 dBu (1 mV); (MIC PHANTOM) -28 dBu (30 mV); (AUX) -18 $\div$ +20 dBu (0.1 $\div$ 7 V)
INPUT IMPEDANCE	(MIC) 10 k $\Omega$ ; (MIC PHANTOM) 10 k $\Omega$ ; (AUX) 20 k $\Omega$
SUPPLY VOLTAGE	220 $\div$ 240 V / 110 $\div$ 120 V (50 / 60 Hz) INTERNAL SETTING / 80 W
INPUT CONNECTORS	1 x XLR, 1 x RJ 45 FOR BM 3001, 2 x TERMINAL, 1 x RCA

#### ES 3080

## AM 2080

p/n 12135062

### INTEGRATED AMPLIFIER


3'800 g  
mm


- 80 W mixer-amplifier, with 2 mic-line audio inputs on removable connectors and 2 aux inputs for music sources
- Input 1 also has an XLR XLR socket
- The input 1 has a signal detection circuit ("VOX") providing automatic priority operation
- Inputs 1 and 2 can access the priority through an external command
- The inputs 2 also has an RJ 45 port for quick connection of an RCF BM 3001 paging microphone (through CAT5 cable)
- The 2 mic-line inputs have a high-pass filter that are useful to improve speech intelligibility
- 2 Aux inputs with tone controls, selectable on the front panel
- A 'MUSIC ON HOLD' aux output allows to send the music to additional amplifiers, mixers, phone systems
- A 'PRE OUT' aux output to send the signal to additional amplifiers
- Digital Chime built-in generator
- The amplifier output is available either for low impedance loudspeakers (min. 4  $\Omega$ ) or 100 - 70 V constant voltage line (for loudspeakers having 100 - 70 V transformers)
- Front panel LEDs indicate the device state (ON, PROT), priority circuit enabled (PRIOR) and the signal level / peak (SIG/PK)

#### SPECIFICATIONS

OUTPUT POWER	80 W
FREQUENCY RESPONSE	50 - 18.000 Hz ( $\pm 3$ dB)
DISTORTION (THD+N)	< 0,3% @ 1 kHz
SPEAKER OUTPUTS	100 V, 70 V, 4 $\Omega$
SIGNAL TO NOISE RATIO	> 60 dB (INPUTS 1-2); > 80 dB (AUX IN)
INPUT SENSITIVITY	(MIC) -62 dBu (1 mV); (MIC PHANTOM) -28 dBu (30 mV); (AUX) -18 $\div$ +20 dBu (0.1 $\div$ 7 V)
INPUT IMPEDANCE	(MIC) 10 k $\Omega$ ; (MIC PHANTOM) 10 k $\Omega$ ; (AUX) 20 k $\Omega$
SUPPLY VOLTAGE	220 $\div$ 240 V / 110 $\div$ 120 V (50 / 60 Hz) INTERNAL SETTING
INPUT CONNECTORS	1 x XLR, 1 x RJ 45, 2 x TERMINAL, 2 x DOUBLE RCA (AUX)

#### AM 2080

AM 2160  
AM 2320

INTEGRATED AMPLIFIERS

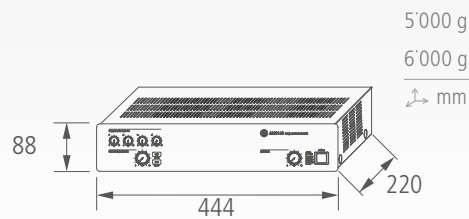
p/n 12135058

p/n 12135059



- Full digital technology Mixer Amplifier 160 W RMS
- 100 V - 70 V and 4 Ohm outputs
- 4 universal inputs with phantom facility on screw terminal connections
- Presence Control and per-channel High-Pass filters
- XLR connector on input 1
- RJ45 connectors on input 2 and 3 for connection to BM3001 microphone
- Configurable Priority settings, VOX facility on input 1
- Selectable aux inputs with two keys on the front panel for music source
- Priority activation through dry contact on all 4 inputs
- 2 Aux inputs with tone controls, selectable with two keys on the front panel
- Music On Hold and PRE outputs
- Digital Chime and Siren built-in generator
- 24V/0.5A priority relay output
- Status / Priority / Audio Level LED indications

REAR VIEW



SPECIFICATIONS

AM 2160 - AM 2320

OUTPUT POWER	160 W (AM 2160) - 320 W (AM 2320)
FREQUENCY RESPONSE	50 Hz ÷ 18.000 kHz
DISTORTION (THD+N)	< 0.3% @ 1 kHz
SPEAKER OUTPUTS	100 V, 70 V, 4 Ω
AUXILIARY OUTPUTS	600 Ω, - 1 dBu (690 mV)
SIGNAL TO NOISE RATIO	> 60 dB (INPUTS 1-4); > 80 dB (AUX IN)
INPUT SENSITIVITY	(MIC) -58 dBu (1 mV); (MIC PHANTOM) -21 dBu (70 mV); (LINE) 0 dBu (775 mV); (AUX) -6 ÷ +13 dBu (0.39 ÷ 3.5 V)
INPUT IMPEDANCE	(MIC) 10 kΩ; (MIC PHANTOM) 5 kΩ; (LINE): 10 kΩ; (AUX): 20 kΩ
SUPPLY VOLTAGE	230 V / 115 (50 / 60 Hz) - INTERNAL SETTING
POWER CONSUMPTION	240 W (AM 2160) - 440 W (AM 2320)
INPUT CONNECTORS	1 x XLR, 2 x RJ 45, 4 x SCREW TERMINALS, 2 x DOUBLE RCA (AUX)
OUTPUT CONNECTORS	2 x RCA (MUSIC ON HOLD, PRE-OUT), SCREW TERMINALS FOR SPEAKERS

BM 3001  
MICROPHONE CONSOLE

p/n 14322008

Dedicated microphone console with Cat5 connection cable and RJ45 connector.





## UP 2321

### POWER AMPLIFIERS

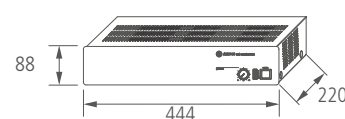
p/n 12135061



4'500 g

5'500 g

mm



- Versatile amplifier for music and announcements
- Power: 320 W
- Main input with selectable phantom power on removable connector XLR or RJ45 (for a quick connection with BM3001 through CAT5FTP cable)
- AUX input for audio sources (CD players, radios, etc.) through RCA connector
- Tone controllers and gain on AUX input
- Main input with priority option on the auxiliary one
- Main input with presence control and high-pass filter to enhance voice intelligibility
- Available output for low impedance speakers (4 Ohm min) or for constant voltage 100 - 70 V
- LED indicators on the front panel to monitor the amp status (ON, PROT, OVERLOAD) the selected priority (PRIOR) and signal level (SIG / PK)
- Rack mount kit for 2U amps included

## UP 2162

### POWER AMPLIFIERS

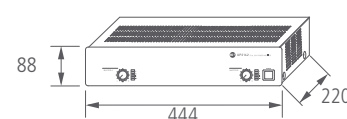
p/n 12135065



3'800 g

7'000 g

mm



- Power: 160 W
- Each amplifier features 2 audio inputs to "line" level, one of these with priority function
- Each amplifier has its own volume and tone controls
- Light indicators for the system status (ON), protection (PROT), priority circuit activation (PRIOR) and peak/audio signal level (SIG/PK) of the corresponding amplifier
- Two outputs for each amplifier, available to low impedance (4 Ω) or constant voltage 100 - 70 V
- 19" rack mount kit

SPECIFICATIONS	UP 2161 - UP 2321	UP 2082 - UP 2162
OUTPUT POWER	160 W (UP 2161) - 320 W (UP 2321)	2 x 80 W - 2 x 160 W
FREQUENCY RESPONSE	50 Hz ÷ 18.000 kHz	50 - 16.000 Hz (± 3 dB)
DISTORTION (THD+N)	< 0.3% @ 1 kHz	< 0,3% @ 1 kHz
SPEAKER OUTPUT	100 V, 70 V, 4 Ω	100 V, 70 V, 4 Ω
SIGNAL/NOISE RATIO	> 60 dB (INPUTS 1-4); > 80 dB (AUX IN)	600 Ω, -1 dBu (690 mV)
INPUT SENSITIVITY	(MIC) -58 dBu (1 mV); (MIC PHANTOM) -21 dBu (70 mV); (LINE) 0 dBu (775 mV); (AUX) -6 ÷ +13 dBu (0.39 ÷ 3.5 V)	> 80 dB
INPUT IMPEDANCE	(MIC) 10 kΩ; (MIC PHANTOM) 5 kΩ; (LINE): 10 kΩ; (AUX): 20 kΩ	IN 1: -12 dBu, IN 2: -32 ÷ -12 dBu
POWER SUPPLY	230 V / 115 (50 / 60 Hz) - INTERNAL SETTING	IN 1: 20 kΩ, IN 2: 20 kΩ (stereo: 10 kΩ)
ABSORBED POWER	240 W (UP 2161) - 440 W (UP 2321)	115-230V (internal setting) / 50-60 Hz
INPUT CONNECTORS	1 x XLR, 1 x RJ 45, 1 x SCREW TERMINALS, 1 x DOUBLE RCA (AUX)	350 W - 700 W
OUTPUT CONNECTORS	SCREW TERMINALS	2 x SCREW TERMINALS

# UP 8501

# UP 8502

# UP 8504

p/n 12135070

p/n 12135077

p/n 12135079

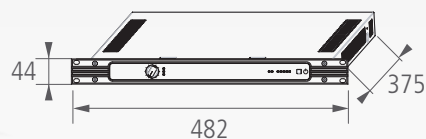
## DIGITAL POWER AMPLIFIER



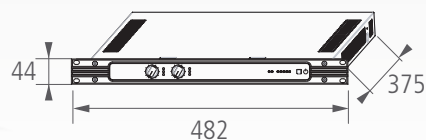
- Class D amplifier and double switching AC-DC power supply, transformer-less galvanic insulated speaker output
- Pro audio performance
- Selectable 70 – 100 V output per channel
- Double input per channel
- Active full protections on amplifier and power supply
- Stand-by, priority and fault remote commands
- Activity and status indicators
- Several status LEDs on front panel give a complete feedback on amplifier status
- Volume knobs on front panel with disablement facility
- Light-weight 1 U 19" rack enclosure
- EN 54-16 certified for voice alarm applications, when interconnected with RCF DXT 7000 system
- All connectors are removable screw terminals

## REAR VIEW

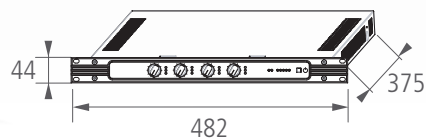
UP 8501

1'124 g  
mm

UP 8502

1'168 g  
mm

UP 8504

1'212 g  
mm

SPECIFICATIONS	UP 8501	UP 8502	UP 8504
OUTPUT POWER	1 X 500 W	2 X 250 W	4 X 125 W
FREQUENCY RESPONSE	40 Hz ÷ 16 kHz	40 Hz ÷ 16 kHz	40 Hz ÷ 16 kHz
DISTORTION (THD+N)	MAX. 0.3%	MAX. 0.3%	MAX. 0.3%
SPEAKER OUTPUT	100 V, 70 V	100 V, 70 V	100 V, 70 V
SIGNAL/NOISE RATIO	86 dB	86 dB	86 dB
INPUT SENSITIVITY	IN 1: 0 dBu (775 mV, max. 7 V), IN 2: 0 ÷ -20 dBu (775 ÷ 78 mV, max. 7 V), IN TEST: 0 dBu (775 mV)		
INPUT IMPEDANCE	70V: 10 Ω, 100W: 20 Ω	70V: 20 Ω, 100W: 40 Ω	70V: 40 Ω, 100W: 80 Ω
POWER SUPPLY	Mains: 115 – 230V c.a. ±10%, 50 – 60 Hz (internal voltage selector) Batteries : 48 V c.c. ±10%		
ABSORBED POWER	650 W	650 W	650 W
INPUT CONNECTORS	REMOVABLE SCREW TERMINALS	REMOVABLE SCREW TERMINALS	REMOVABLE SCREW TERMINALS
OUTPUT CONNECTORS	REMOVABLE SCREW TERMINALS	REMOVABLE SCREW TERMINALS	REMOVABLE SCREW TERMINALS

## AM 1125

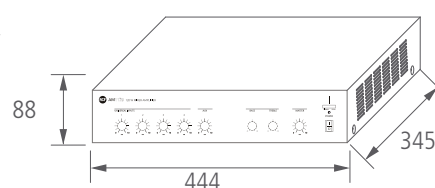
120W 4-INPUTS MIXER AMPLIFIER

p/n 12135082



1'200 g

mm



- 4 XLR input AM 1125 / 3XLR input AM 1064
- VOX facility and Phantom power supply on input 1
- Audio input 3 also with dual RCA connector
- Aux input on dual RCA connector
- DUCKING Control to adjust the Aux in level
- Audio output (with RCA connector) that sends the same signal routed to the internal amplifier
- Audio input (with RCA connector) to connect an external device directly to the internal power amplifier
- AM 1125 Input for the secondary 24 V dc power supply (batteries)
- Amplifier output to loudspeakers, available as 100 / 70 V constant voltage line and Low impedance (min. 4 Ω)

### SPECIFICATIONS

OUTPUT POWER

FREQUENCY RESPONSE

MAX CONSUMPTION

MAX. OUTPUT POWER

INPUT SENSITIVITY

INPUT CONNECTORS

OUTPUT CONNECTORS

### AM 1125

120 W

50÷15.000 Hz

100V (83Ω) - 70V (42Ω) - 4Ω

240 W

MIC: 1.5 mV (– 54 dBu) dBu | LINE & AUX: 200 mV (– 12 dBu) dBu

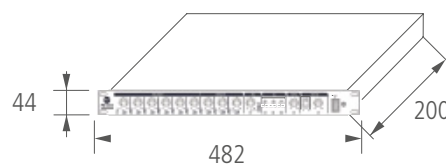
XLR or Dual RCA

Dual RCA

## PR 4093

PRE-AMPLIFIER 9 INPUT 2 OUTPUT

p/n 17100003



3'600 g

mm

- MP3 stereo player/recorder
- Supports SD cards and USB flash drives
- 32 GB Maximum supported memory
- Can play/record one file at a time
- A sequence of 64 file can be programmed
- Fixed MP3 recording format: 192 kbps
- 1 AUX INPUT with parallel AUX OUTPUT
- Disabled front buttons
- IR remote control included

### SPECIFICATIONS

FREQUENCY RESPONSE:

DISTORTION (THD & N):

TONE CONTROL

SENSITIVITY

MAX. INPUT LEVEL:

INPUT IMPEDANCE:

ADJACENT STEREO INPUTS:

INPUT TO OUTPUT:

### PR 4093

20 ÷ 22.000 Hz

≤ 0.03% a 1 kHz

LOW: 80 Hz ± 15 dB; HIGH: 8 kHz ± 15 dB; MID: 2.5 kHz ± 12 dB

–40 dBu (MIC) / 0 dBu (LINE)

–19 dBu (MIC) / +21 dBu (LINE)

2 kΩ (MIC) / 19,5 kΩ (LINE)

< –68 dB

< –76 dB a 1 kHz

QPS 9600

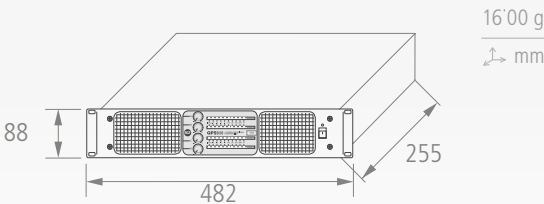
p/n 12135102

4 X 2400 HIGH POWER PRO AMPLIFIER



- 240 W power amplifier
- Suitable for the distribution of music and announcements
- Amplifier output available both for 100 / 70 V constant voltage lines and low impedance loudspeakers (min. 4 Ω)
- Input for the secondary 24 V DC power supply
- MASTER volume and tones BASS and TREBLE control on front panel
- Main power plug with fuse
- Main power voltage selector 230V / 115V
- LEDs indicating audio signal level on front panel

REAR VIEW



SPECIFICATIONS

	QPS 9600
AMPLIFIER CLASS	HD
POWER OUTPUT RMS - STEREO	4x2400 W @ 2Ω   4x2200 W @ 4Ω   4x1300 W @ 8Ω
POWER OUTPUT RMS - BRIDGED	2x4800 W @ 4Ω   2x4400 W @ 8Ω
FREQUENCY RESPONSE	20÷25.000 Hz
THD (@ 1 KHZ)	0.05 % (nominal power, 4 Ω)
SIGNAL / NOISE RATIO	110 dB
GAIN	23 – 44 dB (3 dB step)
INPUT IMPEDANCE	20 kΩ (bil.), 10 kΩ (unbal.)
PROTECTIVE CIRCUITS	Temp., DC, RFI, short circuit
COOLING	Temperature-controlled fan
CROSSTALK (@ 1 KHZ)	> 70 dB
INPUT CONNECTORS	XLR female
POWER SUPPLY / OPERATION VOLTAGE	110 / 230 V, 50 / 60 Hz

## IPS 700 IPS 1700 IPS 2700 IPS 3700

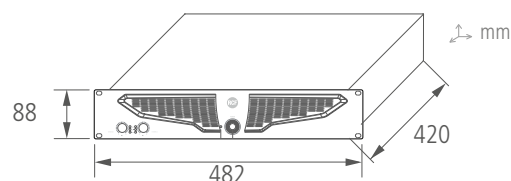
POWER PRO AMPLIFIER

p/n 12135087

p/n 12135089

p/n 12135091

p/n 12135093



2-channel power amplifiers that provide power:

- IPS 700: delivers up to 2 x 300 W RMS @ 4  $\Omega$  (600 W RMS bridged @ 8  $\Omega$ )
- IPS 1700: delivers up to 2 x 450 W RMS @ 4  $\Omega$  (900 W RMS bridged @ 8  $\Omega$ )
- IPS 2700 delivers up to 2 x 1100 W RMS @ 4  $\Omega$  (2200 W RMS bridged @ 8  $\Omega$ ).
- IPS 3700 delivers up to 2 x 1500 W RMS @ 4  $\Omega$  (3000 W RMS bridged @ 8  $\Omega$ ).
- Thanks to its high efficiency class H design and high speed DC fans, the IPS series can withstand the hardest heat conditions ensuring great reliability.

SPECIFICATIONS	IPS 700	IPS 1700	IPS 2700	IPS 3700
AMPLIFIER CLASS	AB	H	H	H
POWER OUTPUT (W) STEREO PER CHANNEL @ OHM	2 x 300 W @ 4 Ω 2 x 150 W @ 8 Ω	2 x 450 W @ 4 Ω 2 x 330 W @ 8 Ω	2 x 1100 W @ 4 Ω 2 x 700 W @ 8 Ω	2 x 1500 W @ 4 Ω 2 x 1200 W @ 8 Ω
BRIDGED POWER	600 W @ 8 Ω	900 W @ 8 Ω	2200 W @ 8 Ω	3000 W @ 8 Ω
FREQUENCY RESPONSE	20 Hz ÷ 20 kHz			
THD @ 1 KHZ	< 0.5% (@ 1kHz)	< 1% (@ 1kHz)		
SIGNAL / NOISE RATIO	> 100dB (@ 1kHz, 0dBu input)			
IMPEDANCE	20 kΩ			
PROTECTIONS	DC, internal fault, input overload, RF interference, unmatched load, output short-circuit, thermal drift, power supply over-current			
COOLING	Internal heat sinks and forced ventilation			
CROSSTALK	> 75dB (@ 1kHz)			
INPUT CONNECTORS	XLR female			
POWER SUPPLY / OPERATION VOLTAGE	230V~ / 50-60 Hz			
WEIGHT	9,5 kg	11,2 kg	12,2 kg	16,6 kg



MS 1033

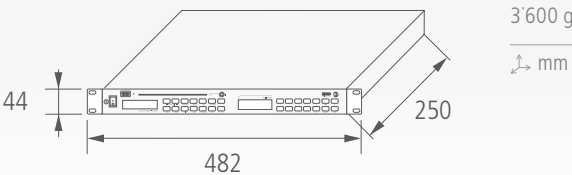
p/n 17170108

CD-USB MP3 PLAYER WITH FM RADIO TUNER



- Double sound source with two independent sections and outputs (Tuner - CD/Mp3)
- CD player to reproduce audio tracks and MP3 files from a compact disc (CD, CD-R, CD-R/W) or from the USB drive ("Flash" memory-stick with only MP3 files) The USB port is available on both front and back panels to provide maximum flexibility
- The SD card port is available on front panels
- LCD backlit display gives information on the CD and MP3 files
- I/R remote control for CD and Tuner included
- FM radio tuner (87.5 - 108 MHz) with possibility to memorize your 30 favourite radio stations
- Stereo / Mono selector for applications where stereo signals are not needed
- LCD backlit display shows the frequency and stations that are in the memory

REAR VIEW



SPECIFICATIONS

	MS 1033
AUDIO OUTPUT LEVEL	+4 dBu $\pm$ 2 dBu (1.2 V $\pm$ 0.2 V)
FREQUENCY RESPONSE	20 $\div$ 20.000 Hz (CD); 100 $\div$ 12.000 Hz (RADIO)
DISTORTION (THD+N)	< 0.1% (CD); < 0.8% (RADIO)
FREQUENCY RANGE	87.5 $\div$ 108 MHz (FM)
SIGNAL TO NOISE RATIO	> 70 dB (CD); > 60 dB (RADIO)
CHANNEL SPLIT	$\geq$ 60 dB (CD); $\geq$ 30 dB (RADIO)
SENSITIVITY	$\leq$ 10 V
SUPPLY VOLTAGE	220 $\div$ 240 V / 110 $\div$ 120 V (50 / 60 Hz)
OUTPUT CONNECTORS	RCA (L&R RADIO); RCA (L&R CD USB/MP3); RCA (L&R MIXED)

# FLUSH MOUNTED AND WALL SPEAKERS

The best solutions for wall or flush installations in false ceiling or panels.



MODEL	PL 50EN	PLP 50EN	PL 68EN	PL 70EN	PL 82EN	PL 40
TYPE	Ceiling speaker	Ceiling speaker	Ceiling speaker	Ceiling speaker	Ceiling speaker	Ceiling speaker
INSTALLATION	Flush mounted	Flush mounted	Flush mounted	Flush mounted	Flush mounted	Flush mounted
COLOUR	White	White	White	White	White	White
SPEAKER	5"	5"	6" dual-cone	6" dual-cone	8" + 0.75"	3,5"
POWER NOM. / PROGRAM	6 - 3 - 1,5 - 0,75 W	6 - 3 - 1,5 - 0,75 W	6 W RMS / 12 W	6 W RMS / 12 W	20 - 10 - 15 W	8 W RMS / 16 W
INPUT	100 V, 70 V	100 V, 70 V	100 V, 70 V	100 V, 70 V	100 V, 70 V	100 V, 70 V
FREQUENCY RESPONSE	130 Hz ÷ 15 kHz	130 Hz ÷ 15 kHz	230 Hz ÷ 20 kHz	230 Hz ÷ 20 kHz	130 Hz ÷ 20 kHz	90 Hz ÷ 20 kHz
MAX. SOUND PRESSURE	100 dB	101 dB	102 dB	99 dB	106 dB	100 dB
ANGLE OF COVERAGE	160°	165°	126°	131°	160°	120°
PROTECTION / CONFORMS	EN 54-24	EN 54-24	EN 54-24	EN 54-24	EN 54-24	-



MODEL	PL 50	PL 60	PL 6X	PL 8X	MF 33EN	WMF 33EN
TYPE	Ceiling speaker	Ceiling speaker	Ceiling speaker	Ceiling speaker	Ceiling speaker	Universal
INSTALLATION	Flush mounted	Flush mounted	Flush mounted	Flush mounted	Flush mounted	Wall
COLOUR	White	White	White	White	Black	Black
SPEAKER	6"	6" dual-cone	6" + 1"	8" + 1"	2 x 3" + 1"	2 x 3" + 1"
POWER NOM. / PROGRAM	6 - 3 W	6 W RMS / 12 W	12 W RMS / 24 W	20 W RMS / 40 W	40 W RMS / 160 W	40 W RMS / 160 W
INPUT	100 V	100 V, 70 V	100 V, 70 V	100 V, 70 V	100 V, 70 V	100 V, 70 V
FREQUENCY RESPONSE	100 Hz ÷ 20 kHz	90 Hz ÷ 20 kHz	70 Hz ÷ 20 kHz	60 Hz ÷ 20 kHz	80 Hz ÷ 20 kHz	80 Hz ÷ 20 kHz
MAX. SOUND PRESSURE	98 dB	107 dB	106 dB	109 dB	104 dB	104 dB
ANGLE OF COVERAGE	150°	90°	100°	80°	100° (Horiz) 160° (Ver)	100° (Horiz) 160° (Ver)
PROTECTION / CONFORMS	-	-	-	-	EN 54-24	EN 54-24



MODEL	BS 8	BS 5EN	DUP 5EN	DU 60EN	DU 50EN
TYPE	Suspended	Suspended	Universal	Universal	Universal
INSTALLATION	Suspended	Suspended	Wall	Wall or flush mounted	Wall or flush mounted
COLOUR	White	White	White	White	White
SPEAKER	8"	5" coassiale + 1"	5,5"	5" dual-cone	5"
POWER NOM. / PROGRAM	20 W RMS / 40 W	20-10-5-2,5/40 W	10 W RMS / 20 W	6-3-1,5-0,75 W	6 W RMS / 12 W
INPUT	100 V	100 V	100 V, 70 V, 25 V	100 V ( /70 V)	100 V, 70 V
FREQUENCY RESPONSE	160 Hz ÷ 12.5 kHz	80 Hz ÷ 20 kHz	130 Hz ÷ 17 kHz	100 Hz ÷ 20 kHz	190 Hz ÷ 18 kHz
MAX. SOUND PRESSURE	106 dB	101 dB	100 dB	100 dB	100 dB
ANGLE OF COVERAGE	360°	170°	180°	180°	175°
PROTECTION / CONFORMS	-	IP 65 - EN 54-24	IP 65	EN 54-24	EN 54-24



MODEL	DM 61	DM 41	DU 31AT	GS 60
TYPE	Compact two-way	Compact two-way	Universal two-way	For garden
INSTALLATION	Wall	Wall	Wall, Flush-mounted	Externale
COLOUR	White Ivory	White Ivory	White Ivory	Green
SPEAKER	6" + 1"	3,5" + 1"	4" + 1"	5.5" + 1.3"
POWER NOM. / PROGRAM	25 W RMS / 50 W	15 W RMS / 30 W	8-4-2 W (100V) - 8 (25V)	32-16-8-4-2-1 W (100 V)
INPUT	100 V, 70 V	100 V, 70 V	100V, 70V, 25V	100 / 70 V (cons. voltage) / 8 Ω
FREQUENCY RESPONSE	70 Hz ÷ 20 kHz	100 Hz ÷ 20 kHz	100 Hz ÷ 17 kHz	60 Hz ÷ 20 kHz
MAX. SOUND PRESSURE	106 dB	102 dB	91 dB	111 dB
ANGLE OF COVERAGE	120° (Horiz) 140° (Ver)	180° (Horiz) 170° (Ver)	180°	360°
PROTECTION / CONFORMS	IP 55	IP 55	-	IP 56

## PL 50EN

CEILING SPEAKER WITH FIRE DOME

p/n 13100007

CERTIFIED EN 54-24  
CPR: 0068-CPR-051/2017 CE

## PLP 50EN

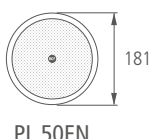
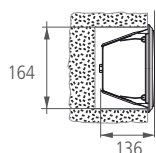
CEILING SPEAKER WITH PLASTIC FIRE DOME

p/n 13100008



1'350 g

mm



PL 50EN

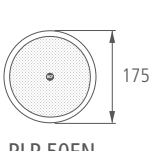
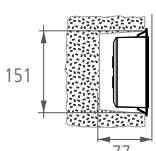
- 5" fullrange transducer.
- Power selectable (100 V): 6 W – 3 W – 1.5 W.
- 93 dB sensitivity.
- Colour white RAL 9016.
- In/out ceramic terminal block.
- Thermal fuse protection.

### SPECIFICATIONS

	PL 50EN	PLP 50EN
POWER SELECTION	6 - 3 - 1,5 W (100 V)	6 - 3 - 1,5 W (100 V)
CONSTANT VOLTAGE	100 V, 70 V	100 V, 70 V
FREQUENCY RESPONSE	130 Hz ÷ 15 kHz (-10dB)	130 Hz ÷ 15 kHz (-10dB)
SENSITIVITY (1 m / 1 W)	92 dB	93 dB
MAX SPL	100 dB (1 m)	101 dB (1 m)
COVERAGE ANGLE	160°	165°

0'660 g

mm



PLP 50EN

## PL 68EN

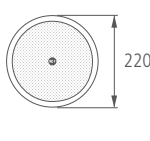
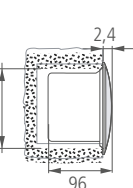
CEILING SPEAKER WITH FIRE DOME

p/n 13133082

CERTIFIED EN 54-24  
CPR: 1488-CPR-0486/W CE


1'120 g

mm



- 6" fullrange transducer.
- Power selectable (100 V): 6 W – 3 W – 1.5 W.
- 94 dB sensitivity.
- Colour white RAL 9003.
- Steel frame, grille and back can.
- In/out ceramic terminal block.
- Thermal fuse protection.

### SPECIFICATIONS

	PL 68EN
POWER SELECTION	6 - 3 - 1,5 W (100 V)
CONSTANT VOLTAGE	100 V, 70 V
FREQUENCY RESPONSE	230 Hz ÷ 20 kHz (-10dB)
SENSITIVITY (1 m / 1 W)	94 dB
MAX SPL	102 dB (1 m)
COVERAGE ANGLE	126°

## PL 70EN

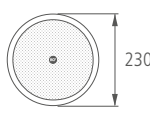
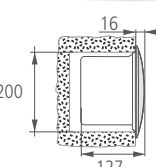
CEILING SPEAKER WITH FIRE DOME

p/n 13133065

CERTIFIED EN 54-24  
CPR: 1488-CPR-0487/W CE


2'030 g

mm



- 6" fullrange transducer.
- Power selectable (100 V): 6 W – 3 W – 1.5 W – 0.75 W.
- 93 dB sensitivity.
- Colour white RAL 9003.
- Steel frame, grille and back can.
- In/out ceramic terminal block.
- Thermal fuse protection.

### SPECIFICATIONS

	PL 70EN
POWER SELECTION	6 - 3 - 1,5 - 0.75 W (100 V)
CONSTANT VOLTAGE	100 V, 70 V
FREQUENCY RESPONSE	230 Hz ÷ 20 kHz (-10dB)
SENSITIVITY (1 m / 1 W)	93 dB
MAX SPL	99 dB (1 m)
COVERAGE ANGLE	131°

## PL 82EN

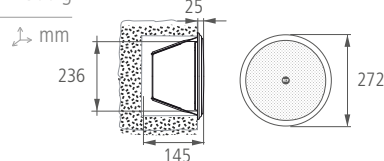
2 WAYS CEILING SPEAKER WITH FIRE DOME

p/n 13100009

 CERTIFIED EN 54-24  
 CPR: 0068-CPR-051/2017 CE


1'800 g

mm



- 8" coaxial woofer with 0.75" dome tweeter.
- Power selectable (100 V): 20 W – 10 W – 5 W.
- 94 dB sensitivity.
- Colour white RAL 9016.
- Steel frame, grille and back can.
- In/out ceramic terminal block.
- Thermal fuse protection.

## SPECIFICATIONS

## PL 82EN

POWER SELECTION	20 - 10 - 5 W (100 V)
CONSTANT VOLTAGE	100 V, 70 V
FREQUENCY RESPONSE	130 Hz ÷ 20 kHz (-10dB)
SENSITIVITY (1 m / 1 W)	94 dB
MAX SPL	106 dB (1 m)
COVERAGE ANGLE	160°

## PL 40

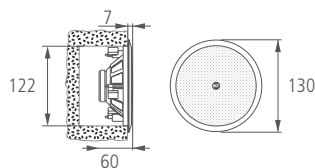
CEILING SPEAKERS

p/n 13133045



1'000 g

mm



- Recommended for speech and background-music reproduction
- IP 44 protection
- Low impedance (8Ω) or 100V
- 3.5" full range speaker
- Three hooks mounting system (no screws or other attachment elements)
- Built-in multi-tapped transformer for constant voltage connection
- Body in self-extinguishing (UL 94V-0) plastic and front metal grille RAL 9003 White

## SPECIFICATIONS

## PL 40

POWER SELECTION	8 - 6 - 4 - 2 W (100 V)
CONSTANT VOLTAGE	100 V, 70 V
FREQUENCY RESPONSE	90 Hz ÷ 20 kHz (-10dB)
SENSITIVITY (1 m / 1 W)	88 dB
MAX SPL	100 dB (1 m)
COVERAGE ANGLE	120°

## PL 50

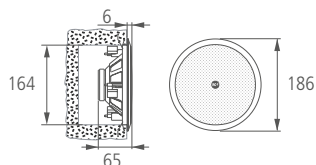
CEILING SPEAKERS

p/n 13133060 (only available in 12 pieces per package)



500 g

mm



- Suitable for paging and background music applications
- 6" wide band loudspeaker
- Sound pressure level at music power: 91 dB @ 1W/1m
- Built-in multi-tap line transformer, 100V and 70V constant voltage connection
- Body in self-extinguishing plastic, white colour
- Spring-type mounting system

## SPECIFICATIONS

## PL 50

POWER SELECTION	6 – 3 W
CONSTANT VOLTAGE	100 V
FREQUENCY RESPONSE	100 Hz ÷ 20 kHz (-10dB)
SENSITIVITY (1 m / 1 W)	90 dB
MAX SPL	98 dB (1 m)
COVERAGE ANGLE	150°



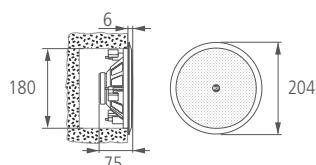
## PL 60

### HIGH EFFICIENCY CEILING SPEAKER



340 g

mm



p/n 13110214

- For paging and background music
- 6" dual cone wide band loudspeaker
- Sound pressure level at music power: 102 dB/1 m
- Low impedance (4Ω) or 100V
- Built-in multi-tapped transformer for 100/70V constant voltage connection
- Body in self-extinguishing plastic UL-94-V0 and front metal grille RAL 9010 White
- Optional accessory: A 1360 base for surface mount installation (p/n 13320107)

#### SPECIFICATIONS

SPECIFICATIONS	PL 60
POWER SELECTION	6 - 3 W (100 V)
CONSTANT VOLTAGE	100 V, 70 V
FREQUENCY RESPONSE	90 Hz ÷ 20 kHz (-10dB)
SENSITIVITY (1 m / 1 W)	91 dB
MAX SPL	107 dB (1 m)
COVERAGE ANGLE	90°

## PL 6X

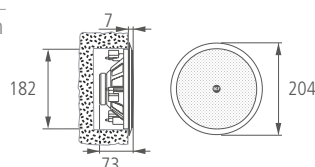
### PL 6X B

#### COAXIAL CEILING SPEAKER



780 g

mm



□ White p/n 13133042

■ Black p/n 13100087

- Two way speaker system with dome tweeter recommended for speech and background-music
- 6" woofer with coaxial tweeter
- Low impedance (8Ω) or 100V
- Built-in multi-tapped transformer for 100/70V constant voltage connection
- Three hooks mounting system (no screws or other attachment elements)
- Body in self-extinguishing (UL 94V-0) plastic and front metal grille
- IP 44 protection

#### SPECIFICATIONS

SPECIFICATIONS	PL 6X
POWER SELECTION	12 - 6 - 3 - 1.5 W (100 V)
CONSTANT VOLTAGE	100 V, 70 V
FREQUENCY RESPONSE	70 ÷ 20 kHz (-10dB)
SENSITIVITY (1 m / 1 W)	92 dB
MAX SPL	106 Hz dB (1 m)
COVERAGE ANGLE	100°

## PL 8X

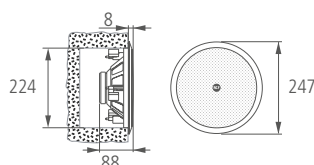
### PL 8X B

#### COAXIAL CEILING SPEAKER



1'230 g

mm



□ White p/n 13133043

■ Black p/n 13100088

- Two way speaker system with dome tweeter for hi level speech and background-music
- 8" woofer with coaxial tweeter
- Low impedance (8Ω) or 100V
- Built-in multi-tapped transformer for 100/70V constant voltage connection
- Body in self-extinguishing plastic (UL 94V-0) and front metal grille
- IP 44 protection

#### SPECIFICATIONS

SPECIFICATIONS	PL 8X
POWER SELECTION	20 - 10 - 5 - 2,5 W (100 V)
CONSTANT VOLTAGE	100 V, 70 V
FREQUENCY RESPONSE	60 Hz ÷ 20 kHz (-10dB)
SENSITIVITY (1 m / 1 W)	93 dB
MAX SPL	109 dB (1 m)
COVERAGE ANGLE	80°

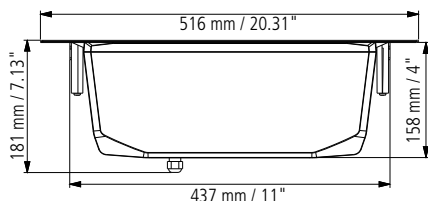
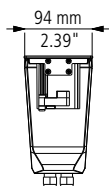
## MF 33EN

### TWO-WAY CEILING SPEAKER



3.4 kg

mm



p/n 13100043

MF 33EN is a two-way ceiling speaker designed for recess installation into ceilings or panels. It is especially suitable for broadcasting background music into commercial spaces, but also alarm messages thanks to the highly intelligible voice reproduction. It features a plastic cabinet with steel magnetic grille, extremely easy to install. A thermal fuse protects the integrity of the line in case of heat affecting the speaker. The terminal connection blocks, for input and output flameproof cables, are made of ceramic material.

- 2 x 3" fullrange transducers with 1" dome tweeter
- Power selectable (100 V): 40 W – 20 W – 10 W – 5 W – 2.5 W
- 88 dB sensitivity
- Colour black RAL 9005
- Plastic body and steel grille
- In/out ceramic terminal block
- Thermal fuse protection

#### SPECIFICATIONS

#### MF 33EN

POWER SELECTION	40 W – 20 W – 10 W – 5 W – 2.5 W (100 V)
CONSTANT VOLTAGE	100 V, 70 V
FREQUENCY RESPONSE	80 Hz ÷ 20 kHz (-10dB)
SENSITIVITY (1 m / 1 W)	88 dB
MAX SPL	104 dB (1 m)
COVERAGE ANGLE	100° (Horiz) 160° (Ver)

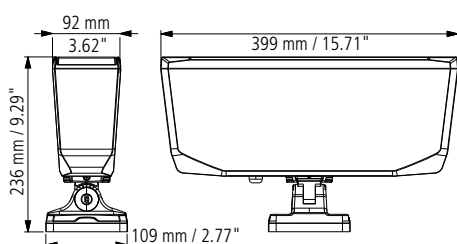
## WMF 33EN

### TWO-WAY WALL MOUNT SPEAKER



5 kg

mm



p/n 13100046

WMF 33EN is a two-way wall mount speaker designed for both horizontal and vertical installation. It is especially suitable for broadcasting background music into commercial spaces, but also alarm messages thanks to the highly intelligible voice reproduction. It features a plastic cabinet with steel magnetic grille, extremely easy to install thanks to the smart support. A thermal fuse protects the integrity of the line in case of heat affecting the speaker. The terminal connection blocks, for input and output flameproof cables, are made of ceramic material.

- 2 x 3" fullrange transducers with 1" dome tweeter
- Power selectable (100 V): 40 W – 20 W – 10 W – 5 W – 2.5 W
- 88 dB sensitivity
- Colour black RAL 9005
- Plastic body and steel grille
- In/out ceramic terminal block
- Thermal fuse protection
- Connections integrated in the wall support

#### SPECIFICATIONS

#### WMF 33EN

POWER SELECTION	40 W – 20 W – 10 W – 5 W – 2.5 W (100 V)
CONSTANT VOLTAGE	100 V, 70 V
FREQUENCY RESPONSE	80 Hz ÷ 20 kHz (-10dB)
SENSITIVITY (1 m / 1 W)	88 dB
MAX SPL	104 dB (1 m)
COVERAGE ANGLE	100° (Horiz) 160° (Ver)

## BS 8

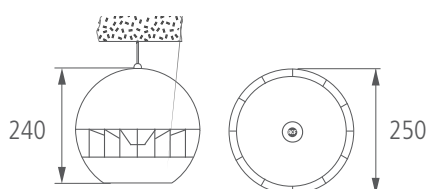
### PENDENT BALL SPEAKER

p/n 13133054



2'300 g

mm



- Pendant speaker
- For paging and background music
- 8" diameter dual cone wide band speaker
- Plastic body - White RAL 9010
- Built-in transformer for 100V constant voltage connection
- 5-metre suspension and connection cable included

#### SPECIFICATIONS

	BS 8
POWER SELECTION	20-10-5 W (100 V)
CONSTANT VOLTAGE	100 V
FREQUENCY RESPONSE	160 Hz ÷ 12.5 kHz (-10dB)
SENSITIVITY (1 m / 1 W)	93 dB
MAX SPL	106 dB (1 m)
COVERAGE ANGLE	360°

## BS 5EN

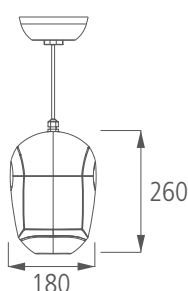
### COMPLIANT SUSPENDED SOUND PROJECTOR

p/n 13133078



2'790 g

mm



- 5" coaxial speaker for alarm voice messages broadcasting and high quality background music.
- ABS cabinet with steel mesh grille
- It can be installed both indoors and outdoors (IP 65 protection grade)
- Equipped with transformer for 100 V (/ 70 V) constant voltage lines
- Internal power setting
- Ceramic screw terminal for connection
- Internal thermal fuse
- 5 meters cable

#### SPECIFICATIONS

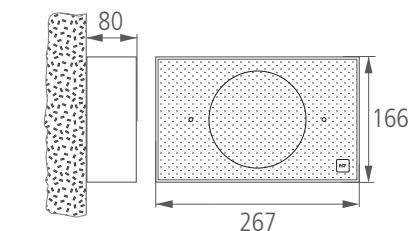
	BS 5-EN
POWER SELECTION	20 - 10 - 5 - 2,5 W (100 V)
CONSTANT VOLTAGE	100 V, 70 V
FREQUENCY RESPONSE	80 Hz ÷ 20 kHz (-10dB)
SENSITIVITY (1 m / 1 W)	88 dB
MAX SPL	101 dB (1 m)
COVERAGE ANGLE	170°

## DUP 5EN

UNIVERSAL WALL MOUNT  
PLASTIC SPEAKER

1'150 g

mm



p/n 13100019

CERTIFIED **EN 54-24** **CE**  
CPR: 0068-CPR-085/2017

- 5.5" fullrange transducer.
- Power selectable (100 V): 6 W – 3 W – 1.5 W.
- 92 dB sensitivity.
- Colour white RAL 9016.
- Plastic body and steel grille.
- In/out ceramic terminal block.
- Thermal fuse protection.

### SPECIFICATIONS

	DUP 5EN
POWER SELECTION	6 - 3 - 1,5 W (100 V)
CONSTANT VOLTAGE	100 V, 70 V
FREQUENCY RESPONSE	130 Hz ÷ 17 kHz (-10dB)
SENSITIVITY (1 m / 1 W)	92 dB
MAX SPL	100 dB (1 m)
COVERAGE ANGLE	180°

## DU 60EN

WALL/CEILING UNIVERSAL  
STEEL SPEAKER

1'610 g

mm



p/n 13133083

CERTIFIED **EN 54-24** **CE**  
CPR: 1488-CPR-0488/W

- 5" fullrange transducer.
- Power selectable (100 V): 6 W – 3 W – 1.5 W – 0.75 W.
- 94 dB sensitivity.
- Colour white RAL 9016.
- Steel body and grille.
- In/out ceramic terminal block.
- Thermal fuse protection.

### SPECIFICATIONS

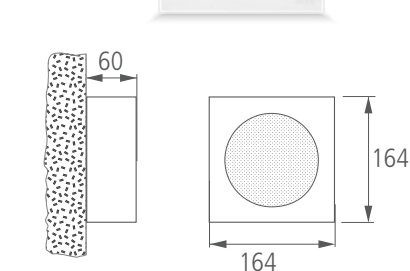
	DU 60EN
POWER SELECTION	6 - 3 - 1,5 - 0,75 W
CONSTANT VOLTAGE	100 V, 70 V
FREQUENCY RESPONSE	100 Hz ÷ 20 kHz (-10 dB)
SENSITIVITY (1 m / 1 W)	94 dB
MAX SPL	100 dB
COVERAGE ANGLE	180°

## DU 50EN

WALL/CEILING UNIVERSAL  
STEEL SPEAKER

1'100 g

mm



p/n 13133064

CERTIFIED **EN 54-24** **CE**  
CPR: 1488-CPR-0489/W

- 5" fullrange transducer.
- Power selectable (100 V): 6 W – 3 W – 1.5 W – 0.75 W.
- 91 dB sensitivity.
- Colour white RAL 9010.
- Steel body and grille.
- In/out ceramic terminal block.
- Thermal fuse protection.

### SPECIFICATIONS

	DU 50EN
POWER SELECTION	6 - 3 - 1,5 - 0,75 W (100 V)
CONSTANT VOLTAGE	100 V, 70 V
FREQUENCY RESPONSE	190 Hz ÷ 18 kHz (-10dB)
SENSITIVITY (1 m / 1 W)	91 dB
MAX SPL	100 dB (1 m)
COVERAGE ANGLE	175°

## DM 61

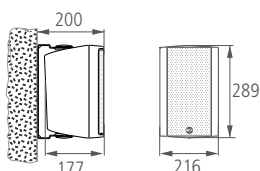
### COMPACT TWO-WAY SPEAKER

p/n 13000050



3'980 g

mm



- Woofer 6" with mylar dome tweeter
- Built-in multitap transformer for constant voltage system
- Body in self-extinguishing composite material
- IP55 protection, suitable for outdoor use
- Adjustable mounting accessory included
- Program/rated power: 50/25W
- Each model can be connected to either a 100 V constant voltage line or a low impedance amplifier output

#### SPECIFICATIONS

#### DM 61

POWER SELECTION	25 - 12.5 - 7.5 - 5 - 2.5 W (100 V)
CONSTANT VOLTAGE	100 V, 70 V
FREQUENCY RESPONSE	70 ÷ 20 kHz (-10dB)
SENSITIVITY (1 m / 1 W)	89 dB
MAX SPL	106 dB (1 m)
COVERAGE ANGLE	120° (HORIZ.); 140° (VERT.)

## DM 41

## DM 41 B

### COMPACT TWO-WAY SPEAKER

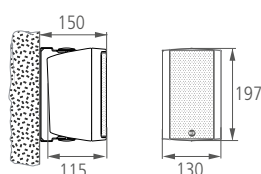
□ White p/n 13000049

■ Black p/n 13000387



1'700 g

mm



- 3.5" woofer with mylar dome 1" tweeter
- Built-in multitap transformer for constant voltage system
- Body in self-extinguishing composite material
- IP55 protection, suitable for outdoor use
- Adjustable mounting accessory included
- Music power/RMS: 30 W / 15 W
- Each model can be connected to either a 100 V constant voltage line or a low impedance amplifier output

#### SPECIFICATIONS

#### DM 41

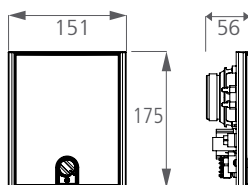
POWER SELECTION	15 – 7.5 – 5 – 2.5 – 1.25 W (100 V) SELEZ.
CONSTANT VOLTAGE	100 V, 70 V
FREQUENCY RESPONSE	100 ÷ 20 kHz (-10dB)
SENSITIVITY (1 m / 1 W)	87 dB
MAX SPL	102 dB (1 m)
COVERAGE ANGLE	180° (HORIZ.); 170° (VERT.)

## DU 31AT

### FLUSH MOUNT WALL SPEAKER WITH POWER SELECTOR



600 g  
↗ mm



p/n 13000220

- For paging and background music for several type of installation
- 2 way wall speaker with flexible design with wide band 4" woofer and 1" tweeter
- Includes a transformer for the connection to (100 - 70 - 25 V) constant voltage lines and a 25 V socket makes it possible to connect multiple speakers in parallel to a constant impedance line
- Wattage taps (8 W, 4 W, 2W, 1W, 0,5W at 100 V) is selectable by means of a Rotary switch, accessible from the front panel
- Universal wall mounting on standard European flush mounting boxes.
- Body in plastic, RAL 9002 White Ivory

#### SPECIFICATIONS

	DU 31AT
POWER SELECTION	8 - 4 - 2 W (100 V) - 8 W (25 V)
CONSTANT VOLTAGE	100 V, 70 V, 25 V
FREQUENCY RESPONSE	100 - 17 kHz (-10dB)
SENSITIVITY (1 m / 1 W)	82 dB
MAX SPL	91 dB (1 m)
COVERAGE ANGLE	180°

## A 1331

### SURFACE MOUNT FOR DU 31 / DU 31AT



p/n 13360123

- Quickly and easily installed on any flat surface
- Body in plastic, RAL 9002 White Ivory



DU 31AT Table mounting support with tilt 15°



DU31 and A1331 wall mounting support with tilt 0°



DU31 and A1331 wall mounting support with tilt 15°



DU31 and A1331 flag mount support unidirectional



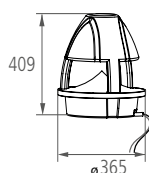
2 x DU31 and 2 x A1331 flag mount support bi-directional

## GS 60

### GARDEN SPEAKER



4195 g  
↗ mm



p/n 13133084

- Body made of linear low-density polyethylene
- Coaxial transducer with 5,25" woofer and 1,20" tweeter
- Suitable for installation on different surfaces
- Can be used in constant voltage lines 100V / 70V or in low impedance (8 ohm)
- Protection grade IP56

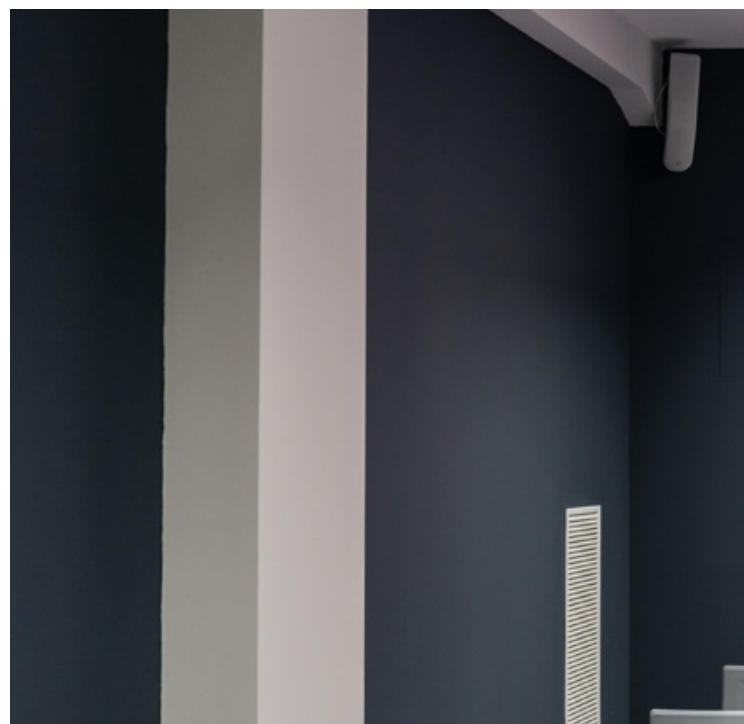
#### SPECIFICATIONS

	GS 60
POWER SELECTION	32 - 16 - 8 - 4 - 2 - 1 W (100V)
CONSTANT VOLTAGE	100 V, 70 V
FREQUENCY RESPONSE	60 Hz ÷ 20 kHz
SENSITIVITY (1 m / 1 W)	90 dB
MAX SPL	111 dB
COVERAGE ANGLE	360°



# SOUND PROJECTORS, MONITORS AND COLUMN SPEAKERS

Maximum speech intelligibility  
for every public ambience and for any  
kind of application.



MODEL	DP 4EN	DP 1420EN	BD 2412EN	DP 5EN	BD 5EN	DP 4
TYPE	Projector	Proiettore Allum.	Projector Bidirec.	Projector	Projector Bidirec.	Projector
INSTALLATION	Wall o Flush Mounted	Wall o Flush Mounted	Wall o Flush Mounted	Wall o Flush Mounted	Wall o Flush Mounted	Wall o Flush Mounted
COLOUR	Grey	Grey	Grey	White	White	Grey
SPEAKER	4"	5"	2 x 5"	5"	2 x 5"	5"
POWER NOM. / PROGRAM	10 W RMS / 40 W	20 W RMS / 40 W	20 W RMS / 40 W	20 W RMS / 40 W	20 W RMS / 40 W	10 W RMS / 20 W
INPUT	100 V	100 V, 70 V,	100 V, 70 V,	100 V, 70 V,	100 V, 70 V,	100 V
FREQUENCY RESPONSE	180 Hz ÷ 16 kHz	160 Hz ÷ 20 kHz	130 Hz ÷ 20 kHz	80 Hz ÷ 20 kHz	150 Hz ÷ 18 kHz	180 Hz ÷ 16 kHz
MAX. SOUND PRESSURE	101 dB	105 dB	101 dB	101 dB	99 dB	101 dB
ANGLE OF COVERAGE	180°	155°	130°*	210°*	210°*	210°
PROTECTION / CONFORMS	IP 55, EN 54-24	IP 66, EN 54-24	IP 66, EN 54-24	IP 65, EN 54-24	IP 65, EN 54-24	IP 55



MODEL	CS 6520EN	CS 6940EN	CS 3082
TYPE	Column speaker two-way	Column speaker two-way	Column speaker two-way
INSTALLATION	Wall	Wall	Wall
COLOUR	White	White	White
SPEAKER	4 x 3.15" + 0.8"	8 x 3" + 0.75"	8 x 2" + 2 x 1"
POWER NOM. / PROGRAM	20 W RMS / 40 W	40 W RMS / 80 W	30 W RMS / 60 W
INPUT	100 V, 70 V	100 V, 70 V	100 V, 70 V
FREQUENCY RESPONSE	140 Hz ÷ 20 kHz	140 Hz ÷ 20 kHz	200 Hz - 20 kHz
MAX. SOUND PRESSURE	105 dB	109 dB	106 dB
ANGLE OF COVERAGE	185° (Horiz) 47° (Ver)	194° (Horiz) 30° (Ver)	180° (Horiz) 30° (Ver)
PROTECTION / CONFORMS	IP 66, EN 54-24	IP 66, EN 54-24	-



MODEL	MR 52EN	MR 40T	MR 50T
TYPE	Compact two-way	Compact two-way	Compact two-way
INSTALLATION	Wall	Wall	Wall
COLOUR	White/Black	White/Black	White/Black
SPEAKER	5" + 1"	4" + 1"	5" + 1"
POWER NOM. / PROGRAM	30W - 15W - 7.5W - 3.75W	40 W IEC	60 W IEC
INPUT	100 V, 70 V	100 V, 70 V	100 V, 70 V
FREQUENCY RESPONSE	80 Hz ÷ 20 kHz	70 Hz ÷ 20 kHz	60 Hz ÷ 20 kHz
MAX. SOUND PRESSURE	103 dB	108 dB	110 dB
ANGLE OF COVERAGE	180°	100° (Horiz) 110° (Ver)	100° (Horiz) 110° (Ver)
PROTECTION / CONFORMS	EN 54-24	-	-



MODEL	MQ 100L	MQ 50C	MQ 80P
TYPE	Column speaker Three-way	Ceiling two-way	Projector two-way
INSTALLATION	Wall	Ceiling	Projector
COLOUR	White/Black	White	White/Black
SPEAKER	2 x 3.5" + 2 x 3.5" + 2 x 0.75"	5" + 1"	5" + 1"
POWER NOM. / PROGRAM	80 W RMS / 160 W	60 W RMS / 120 W	60 W RMS / 120 W
INPUT	100 V, 70 V - 16 Ω	100 V, 70 V - 16 Ω	100 V, 70 V - 8 Ω
FREQUENCY RESPONSE	130 Hz ÷ 20 kHz	70 Hz ÷ 20 kHz	100 Hz ÷ 20 kHz
MAX. SOUND PRESSURE	112 dB	112 dB	114 dB
ANGLE OF COVERAGE	180° (Horiz) 60° (Ver)	120°	90° (Horiz) 60° (Ver)
PROTECTION / CONFORMS	-	-	IP 55

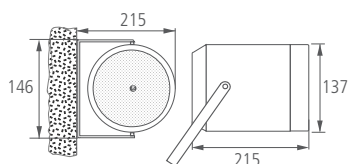
## DP 4EN

### UNIDIRECTIONAL SOUND PROJECTOR



1'300 g

mm



p/n 13100021



- 4" fullrange transducer.
- Power selectable (100 V): 10 W – 5 W – 2.5 W.
- 91 dB sensitivity.
- Colour grey RAL 7035.
- Flameproof ABS body, aluminum grille and bracket.
- In/out ceramic terminal block.
- Thermal fuse protection.
- Protection grade IP55.

#### SPECIFICATIONS

SPECIFICATIONS	DP 4EN
POWER SELECTION	10 - 5 - 2.5 W (100 V)
CONSTANT VOLTAGE	100 V
FREQUENCY RESPONSE	180 ÷ 16 kHz (-10dB)
SENSITIVITY (1 m / 1 W)	91 dB
MAX SPL	101 dB (1 m / POWER MAX)
COVERAGE ANGLE	180°

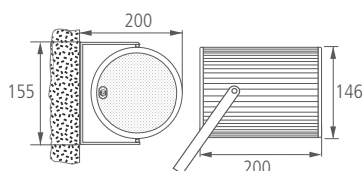
## DP 1420EN

### ALUMINIUM SOUND PROJECTOR



2'730 g

mm



p/n 13133071



- 5" fullrange transducer.
- Power selectable (100 V): 20 W – 10 W – 5 W – 2.5 W – 1.25 W.
- 92 dB sensitivity.
- Colour grey RAL 7035.
- Aluminium body, grille and bracket.
- In/out ceramic terminal block.
- Thermal fuse protection.
- Protection grade IP66.

#### SPECIFICATIONS

SPECIFICATIONS	DP 1420EN
POWER SELECTION	20 - 10 - 5 - 2.5 - 1.25 W (100 V)
CONSTANT VOLTAGE	100 V, 70 V
FREQUENCY RESPONSE	160 ÷ 20 kHz (-10dB)
SENSITIVITY (1 m / 1 W)	92 dB
MAX SPL	105 dB (1 m)
COVERAGE ANGLE	155°

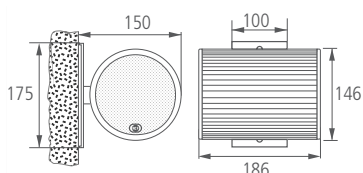
## BD 2412EN

### ALUMINIUM BIDIRECTIONAL SOUND PROJECTOR



3'200 g

mm



p/n 13133074



- 2 x 5" fullrange transducers.
- Power selectable (100 V): 20 W – 10 W – 5 W.
- 88 dB sensitivity.
- Colour grey RAL 7035.
- Aluminum body, grille and bracket.
- In/out ceramic terminal block.
- Thermal fuse protection.
- Protection grade IP66.

#### SPECIFICATIONS

SPECIFICATIONS	BD 2412EN
POWER SELECTION	20 - 10 - 5 W (100 V)
CONSTANT VOLTAGE	100 V, 70 V
FREQUENCY RESPONSE	130 ÷ 20 kHz (-10dB)
SENSITIVITY (1 m / 1 W)	88 dB
MAX SPL	101 dB (1 m)
COVERAGE ANGLE	130° (per ogni altoparlante)

## DP 5EN

## MONODIRECTIONAL PROJECTOR



p/n 13133076

CERTIFIED EN 54-24  
CPR: 0068-CPR-058/2014 CE

- 5" fullrange transducer.
- Power selectable (100 V): 20 W – 10 W – 5 W – 2.5 W.
- 88 dB sensitivity.
- Colour white RAL 9016.
- Flameproof ABS body, steel grille.
- In/out ceramic terminal block.
- Thermal fuse protection.
- Protection grade IP65.

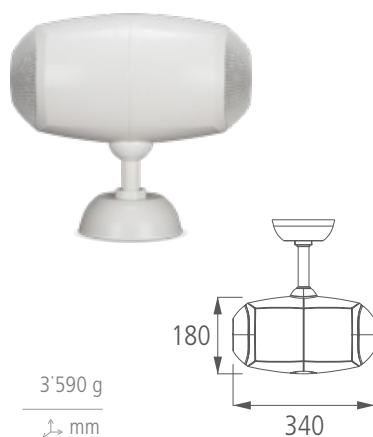
## SPECIFICATIONS

POWER SELECTION	20 W – 10 W – 5 W – 2.5 W (100 V) W RMS
CONSTANT VOLTAGE	100 V, 70 V
FREQUENCY RESPONSE	80 ÷ 20 kHz (-10dB)
SENSITIVITY (1 m / 1 W)	88 dB
MAX SPL	101 dB (1 m)
COVERAGE ANGLE	210°

## DP 5-EN

## BD 5EN

## BIDIRECTIONAL PROJECTOR



p/n 13133077

CERTIFIED EN 54-24  
CPR: 0068-CPR-058/2014 CE

- 2 x 5" fullrange transducers.
- Power selectable (100 V): 20 W – 10 W – 5 W – 2.5 W.
- 86 dB sensitivity.
- Colour white RAL 9016.
- Flameproof ABS body, steel grille.
- In/out ceramic terminal block.
- Thermal fuse protection.
- Protection grade IP65.

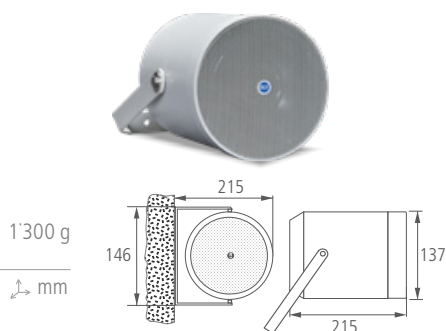
## SPECIFICATIONS

POWER SELECTION	20 W – 10 W – 5 W – 2.5 W (100 V) W RMS
CONSTANT VOLTAGE	100 V, 70 V
FREQUENCY RESPONSE	150 ÷ 18 kHz (-10dB)
SENSITIVITY (1 m / 1 W)	86 dB
MAX SPL	99 dB (1 m)
COVERAGE ANGLE	210° in entrambe le direzioni

## BD 5-EN

## DP 4

## INDOOR/OUTDOOR SOUND PROJECTOR



p/n 13000106

- Ideal for paging and background music
- IP55 protection, suitable for outdoor use
- 5" diameter extended range twin-cone loudspeaker
- Built-in multi-tapped transformer for connection constant voltage 100V
- Equipped with aluminium "U" bracket

## SPECIFICATIONS

POWER SELECTION	10 - 5 W (100 V)
CONSTANT VOLTAGE	100 V
FREQUENCY RESPONSE	180 ÷ 16 kHz (-10dB)
SENSITIVITY (1 m / 1 W)	91 dB
MAX SPL	101 dB (1 m / POWER MAX)
COVERAGE ANGLE	210°

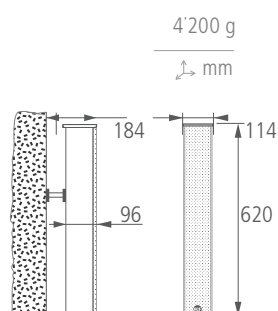
## DP 4

## CS 6520EN

COLUMN SPEAKER TWO-WAY

p/n 13133079

CERTIFIED EN 54-24  
CPR: 1488-CPR-0490/W CE



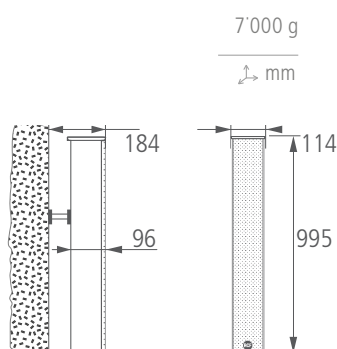
- 4 x 3" fullrange transducers with 0.75" dome tweeter.
- Power selectable (100 V): 20 W – 10 W – 5 W – 2.5 W – 1.25 W.
- 93 dB sensitivity.
- Colour white RAL 9003.
- Aluminium body, grille and bracket.
- In/out ceramic terminal block.
- Thermal fuse protection.
- Protection grade IP66.

## CS 6940EN

COLUMN SPEAKER TWO-WAY

p/n 13105006

CERTIFIED EN 54-24  
CPR: 1488-CPR-0490/W CE

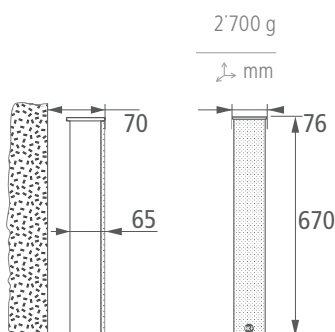


- 8 x 3" fullrange transducers with 0.75" dome tweeter.
- Power selectable (100 V): 40 W – 20 W – 10 W – 5 W – 2.5 W.
- 95 dB sensitivity.
- Colour white RAL 9003.
- Aluminium body, grille and bracket.
- In/out ceramic terminal block.
- Thermal fuse protection.
- Protection grade IP66.

## CS 3082

COLUMN SPEAKER SLIM LINE

p/n 13000232



- Ideal for speech reproduction, shape designed to enable corner installation
- Music power/RMS: 60/30W
- Eight 2" diameter extended range speakers and two tweeter 1"
- Body in extruded aluminium bake-painted RAL 9016 White and front metal grille RAL 9016 White, includes accessory for wall mounting
- Built-in multi-tapped transformer (30 - 20 - 10 W) for 100 V constant voltage connection
- 16-ohm input that can be selected on the terminal block
- Audio connection on screw terminal block

### SPECIFICATIONS

	CS 6520EN	CS 6940EN	CS 3082
POWER SELECTION	20 - 10 - 5 - 2.5 - 1.25 W (100 V)	40 - 20 - 10 - 5 - 2.5 W (100 V)	30 W - 20 W - 10 W
CONSTANT VOLTAGE	100 V, 70 V	100 V, 70 V	100 V
FREQUENCY RESPONSE	140 ÷ 20 kHz (-10dB)	140 ÷ 20 kHz (-10dB)	200 - 20 kHz
SENSITIVITY (1 m / 1 W)	93 dB	95 dB	91 dB
MAX SPL	105 dB (1 m)	109 dB (1 m)	106 dB (1 m / POWER MAX)
COVERAGE ANGLE	185° (ORIZ.); 47° (VERT.)	194° (HORIZ.); 30° (VERT.)	180° (HORIZ.); 30° (VERT.)

## AC WM-CS

COUPLE OF SWIVEL BRACKETS

p/n 13360206

- Swivel brackets for the installation of CS 3082 speaker



## MR 52EN B

## MR 52EN W

### 2 WAYS BASS REFLEX MONITOR SPEAKERS

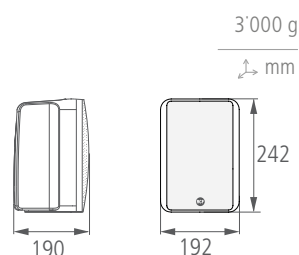


■ Black p/n 13100011

□ White p/n 13100010



- 5" woofer with 1" dome tweeter.
- Power selectable (100 V): 30 W – 15 W – 7.5 W – 3.75 W.
- 89 dB sensitivity
- Colour white RAL 9016 or black RAL 9005.
- Flameproof ABS body, steel grille.
- In/out ceramic terminal block.
- Thermal fuse protection.



## MR 40T

## MR 40T W

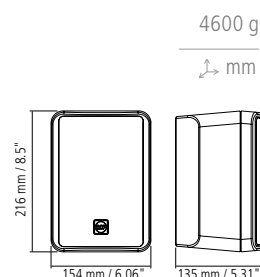
### TWO-WAY BASS REFLEX SPEAKER



■ Black p/n 13100035

□ White p/n 13100037

- 40W AES power handling
- 108 dB max SPL
- 70 ÷ 20000 Hz frequency range
- 110° x 100° coverage angles
- 1 x 4" woofer (1" v.c.)
- 1 x 1" dome tweeter (0.8" v.c.)
- Body in self-extinguishing plastic
- Wall mount accessory included
- M6 inserts available for optional U bracket
- 4 pole EUROBLOCK connector (audio input and parallel link output)



## MR 50T

## MR 50T W

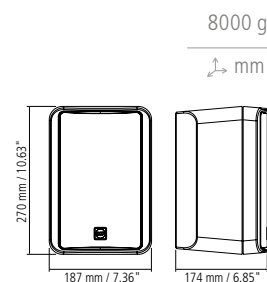
### TWO-WAY BASS REFLEX SPEAKER



■ Black p/n 13100039

□ White p/n 13100041

- 60W AES power handling
- 110 dB max SPL
- 60 ÷ 20000 Hz frequency range
- 110° x 100° coverage angles
- 1 x 5" woofer (1" v.c.)
- 1 x 1" dome tweeter (0.8" v.c.)
- Body in self-extinguishing plastic
- Wall mount accessory included
- M6 inserts available for optional U bracket
- 4 pole EUROBLOCK connector (audio input and parallel link output)



#### SPECIFICATIONS

	MR 52EN	MR 40T	MR 40T
POWER SELECTION	30 - 15 - 7.5 - 3.75 W (100 V)	20 - 10 - 5 - 2.5 W (100 V)	20 - 10 - 5 - 2.5 W (100 V)
CONSTANT VOLTAGE	8 Ω	8 Ω	8 Ω
FREQUENCY RESPONSE	80 ÷ 20 kHz (-10dB)	70 Hz ÷ 20 kHz (-10dB)	60 Hz ÷ 20 kHz (-10dB)
SENSITIVITY (1 m / 1 W)	89 dB	86 dB	87 dB
MAX SPL	103 dB (1 m)	105 dB (1 m)	107 dB (1 m)
COVERAGE ANGLE	180°	110° (HORIZ.); 100° (VERT.)	110° (HORIZ.); 100° (VERT.)

## MA 4 - MA 4W

### WALL MOUNT BRACKET

■ MA 4 Black p/n 13360367  
□ MA 4W White p/n 13360368

Bracket for mounting one MR 40T speaker on the wall



## MA 5 - MA 5W

### WALL MOUNT BRACKET

■ MA 5 Black p/n 13360369  
□ MA 5W White p/n 13360370

Bracket for mounting one MR 50T series speaker on the wall



# MQ 100L W MQ 100L B

3 WAY COLUMN LOUDSPEAKER

□ White  
p/n 13000187  
■ Black  
p/n 13000186



## SPECIFICATIONS

POWER SELECTION

CONSTANT VOLTAGE

FREQUENCY RESPONSE

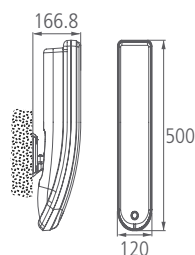
SENSITIVITY (1 m / 1 W)

MAX SPL

COVERAGE ANGLE

3'000 g

mm



- 3 way column array speaker system providing natural high intelligibility hi-fidelity sound of both speech and music
- Body is made of self-extinguishing (HB level) high density polystyrene
- The wide horizontal coverage angle (180°) and the 60° asymmetrical vertical dispersion allow the correct sound reproduction and feedback reduction
- MQ 100L is equipped with: 2 rubber surround 3.5" woofers, 2 fabric surround 3.5" mid-woofers, 2 cloth coated 0.75" dome tweeters
- Mounting accessories are included. These have been studied to keep the column as close as possible to the wall and simplify its installation
- The pre-oriented vertical acoustic axis allows to cover already the majority of the installations.
- Provided with accessories to orient the speaker down of extra 5° and 10°
- Built-in multi-tapped transformer (40 - 20 - 10 - 5 W) for 100 V constant voltage connection
- 16-ohm input that can be selected by switch with MAX power 60 W

## MQ 100L-W - MQ 100L-B

40 - 20 - 10 - 5 W (100 V)

100 V, 70 V

130 - 20 kHz (-10dB)

93 dB

112 dB (1 m / POWER MAX)

180° (HORIZONTAL); 60° (VERTICAL)

# MQ 50C W

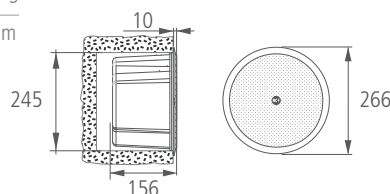
2 WAY CEILING SPEAKER

□ White  
p/n 13000081



2'200 g

mm



- Compact design, light weight and limited depth makes the RCF MQ50C 2-way ceiling monitor loudspeakers ideal for use in any PA systems and background/foreground music systems where the good sound is required.
- Speaker: woofer 5" neodymium magnet tweeter 1" dome neodymium magnet
- Power/RMS: 120/60W Bypass
- Impedance: [Bypass] 16 Ω
- [70,7V]: 15W - 10W - 5W - 2.5 W
- Crossover frequencies: 3000 Hz, 12/12 dB/oct - High pass filter at 150 Hz
- Angle of coverage: 120° horizontal x 120° vertical
- Cabinet: Plastic material self-extinguishing, Tuned Alu-dome

## MQ 50C

30 - 20 - 10 - 5 W (100 V)

100 V, 70 V

70 ÷ 20 kHz (-10dB)

91 dB

112 dB (1 m)

120°

## SPECIFICATIONS

POWER SELECTION

CONSTANT VOLTAGE

FREQUENCY RESPONSE

SENSITIVITY (1 m / 1 W)

MAX SPL

COVERAGE ANGLE

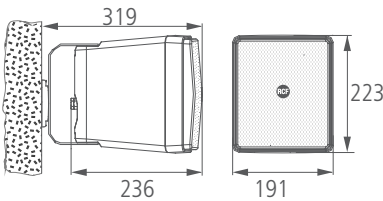
MQ 80P W  
MQ 80P B

2 WAY INDOOR OUTDOOR SPEAKER

- White  
p/n 13000096
- Black  
p/n 13000094



3'000 g  
↕ mm



- Speaker: woofer 5" horn-loaded, 1" horn-loaded compression driver with phase-plug loaded on CD horn
- Power/RMS: 120/60 W Bypass
- Impedance: [Bypass] 8 Ω
- [70,7V]: 15W - 10W - 5W - 2,5W
- Tuning frequency: 100 Hz
- Crossover frequency: 3000 Hz Crossover: Notch/6 dB/oct
- Cabinet: self-extinguishing high-density polystyrene, UV stabilized
- IP 55, suitable for outdoor use
- Suitable for cluster installation (2x, 3x) for a wide and uniform coverage

SPECIFICATIONS

POWER SELECTION	30 - 20 - 10 - 5 W (100 V)
CONSTANT VOLTAGE	100 V, 70 V
FREQUENCY RESPONCE	100 ÷ 20 kHz (-10dB)
SENSITIVITY (1 m / 1 W)	94 dB
MAX SPL	114 dB (1 m)
COVERAGE ANGLE	90° (HORIZONTAL); 60° (VERTICAL)

MQ 80P

30 - 20 - 10 - 5 W (100 V)
100 V, 70 V
100 ÷ 20 kHz (-10dB)
94 dB
114 dB (1 m)
90° (HORIZONTAL); 60° (VERTICAL)

# HORN SPEAKERS

Designed to be weather resistant and to withstand high sound pressure levels outdoor or in large environments.



MODEL	HD 21EN	MH 61EN	HD 6045EN	HD 1110
TYPE	Round	Rectangular	Rectangular	Round
MATERIAL	ABS	ABS	Fiberglass	ABS
SPEAKER	1.5" Comp. Driver	1.5" C. Driver + 6.5" Woofer	2" Comp. Driver	1.5" Comp. Driver
POWER NOM. / PROGRAM	30 W RMS	60 W RMS	200 W RMS / 300 W	20 W RMS / 30 W
INPUT	100 V - 70 V	100 V - 70 V	100 V - 70 V - 25 V	8 Ω
FREQUENCY RESPONSE	340 Hz ÷ 9 kHz	100 Hz ÷ 20 kHz	200 Hz ÷ 10 kHz	900 Hz ÷ 13 kHz
MAX. SOUND PRESSURE	117 dB	115 dB	124 dB	114 dB
ANGLE OF COVERAGE	135°	70° (Horiz) 90° (Ver)	60° (Horiz) 50° (Ver)	175°
PROTECTION / CONFORMS	IP 66, EN 54-24	IP 66, EN 54-24	IP 65, EN 54-24	IP 65



MODEL	HD 310T	HD 410T	HD 3216T
TYPE	Round	Round	Rectangular
MATERIAL	Aluminium	Aluminium	ABS
SPEAKER	1.5" Comp. Driver	2" Comp. Driver	1.5" Comp. Driver
POWER NOM. / PROGRAM	30 W RMS	50 W RMS	25 W RMS
INPUT	100 V - 70 V	100 V - 70 V	100 V - 70 V
FREQUENCY RESPONSE	240 Hz ÷ 10 kHz	180 Hz ÷ 7 kHz	250 Hz ÷ 10 kHz
MAX. SOUND PRESSURE	123 dB	130 dB	122 dB
ANGLE OF COVERAGE	80°	90°	130° (Horiz) 60° (Ver)
PROTECTION / CONFORMS	IP 66	IP 66	IP 66

## HD 21EN

PLASTIC HORN SPEAKER  
WITH DRIVER

2'000 g

↕ Ø 211 x 280 mm

p/n 13133075

CERTIFIED EN 54-24  
CPR: 1488-CPR-0652/W

- 1.5" compression driver.
- Power selectable (100 V): 30 W – 15 W – 7.5 W – 3.75 W.
- 104 dB sensitivity.
- Colour grey RAL 7035.
- Plastic body.
- In/out ceramic terminal block.
- Thermal fuse protection.
- Protection grade IP66.

## SPECIFICATIONS

POWER SELECTION	30 - 15 - 7,5 - 3,75 W (100 V)
CONSTANT VOLTAGE	100 V; 70V
FREQUENCY RESPONSE	340 Hz ÷ 9 kHz
SENSITIVITY (1 m / 1 W)	104 dB
MAX SPL	117 dB
COVERAGE ANGLE	135°

## HD 21EN

## MH 61EN

2 WAY PLASTIC HORN SPEAKER



7'000 g

↕ 332 x 418 x 391 mm

p/n 13100042

CERTIFIED EN 54-24  
CPR: 1488-CPR-0672/W

- Woofer da 6.5" con tweeter da 1".
- Potenza selezionabile (100 V): 60 W – 30 W – 15 W – 7.5 W.
- 99 dB di sensibilità.
- Colore grigio RAL 7035.
- Corpo in plastica.
- Connettore ceramico per ingresso e uscita.
- Fusibile termico di protezione.
- Grado di protezione IP66.

## SPECIFICATIONS

POWER SELECTION	30 - 15 - 7.5 W
CONSTANT VOLTAGE	100 V; 70V
FREQUENCY RESPONSE	100 ÷ 20 kHz
SENSITIVITY (1 m / 1 W)	99 dB
MAX SPL	115 dB
COVERAGE ANGLE	70° (HORIZONTAL); 90° (VERTICAL)

## MH 61EN

## HD 6045EN

LONG-THROW MULTI CELL  
HORN SPEAKER

10.500 g

↕ 620 x 475 x 564 mm

p/n 13133085

CERTIFIED EN 54-24  
CPR: 0068-CPR-030/2015

- 4 x 2" compression drivers.
- Rated power (100 V): 200 W.
- 101 dB sensitivity.
- Colour white RAL 9003.
- Fiberglass body.
- In/out ceramic terminal block.
- Thermal fuse protection.
- Protection grade IP65.

## SPECIFICATIONS

POWER SELECTION	200 W (100 W con linea 70 V)
CONSTANT VOLTAGE	100 V ( / 70 V)
FREQUENCY RESPONSE	200 Hz ÷ 10 kHz (–10 dB)
SENSITIVITY (1 m / 1 W)	101 dB SPL
MAX SPL	124 dB
COVERAGE ANGLE	60° (HORIZONTAL); 50° (VERTICAL)

## HD 6045EN

## HD 1110

### PLASTIC HORN SPEAKER WITH DRIVER

420 g

↗ Ø 93 x 110 mm



p/n 13133030

- For alarm and paging systems in places with a high level of background noise
- High-pass filter for protection of the driver against low frequencies out of range
- Body in plastic, RAL 7035 grey
- Suitable for outdoor use
- Attachment steel bracket included

#### SPECIFICATIONS

POWER SELECTION	HD 1110
20 W RMS - 30 W MAX	
CONSTANT VOLTAGE	8 Ω
FREQUENCY RESPONSE	900 ÷ 13 kHz (-10dB)
SENSITIVITY (1 m / 1 W)	101 dB
MAX SPL	114 dB (1 m)
COVERAGE ANGLE	175°

## HD 310T

### ALUMINIUM HORN SPEAKER WITH DRIVER

3'100 g

↗ Ø 310 x 315 mm



p/n 13130001

- High efficiency speaker ideal for speech reproduction
- Weather-resistant construction IP 66 Rating, suitable for outdoor use for temperatures between -25°C and +70°C
- High-pass filter for protection of the driver against low frequencies out of range
- Driver impedance 8 Ω
- Stainless steel attachment bracket included
- Rear cover in UV stabilised self-extinguishing ABS, RAL 7035 grey

#### SPECIFICATIONS

POWER SELECTION	HD 310T
30 - 20 - 15 - 10 - 5 - 2.5 W (100 V)	
CONSTANT VOLTAGE	100 V; 70 V
FREQUENCY RESPONSE	240 ÷ 10 kHz (-10dB)
SENSITIVITY (1 m / 1 W)	108 dB
MAX SPL	123 dB (1 m)
COVERAGE ANGLE	80°

## HD 410T

### ALUMINIUM HORN SPEAKER WITH DRIVER AND TRANSFORMER



3'570 g

↗ Ø 430 x 393 mm

p/n 13133041

- High efficiency speaker ideal for speech reproduction
- Weather-resistant construction IP 66 Rating, suitable for outdoor use for temperatures between -25°C and +70°C
- High-pass filter for protection of the driver against low frequencies out of range
- Driver impedance 16 Ω
- Stainless steel attachment bracket included
- Rear cover in UV stabilised self-extinguishing ABS, RAL 7035 grey

#### SPECIFICATIONS

POWER SELECTION	HD 410T
50 - 30 - 25 - 15 - 7.5 W (100 V)	
CONSTANT VOLTAGE	100 V; 70 V
FREQUENCY RESPONSE	180 ÷ 7 kHz (-10dB)
SENSITIVITY (1 m / 1 W)	112 dB
MAX SPL	130 dB (1 m)
COVERAGE ANGLE	90°

# HD 3216T

PLASTIC HORN SPEAKER WITH DRIVER AND TRANSFORMER

p/n 13133037



1'870 g

↕ 315x 170 x 322 mm

- Compact speaker with high directivity and efficiency for intelligible speech reproduction
- Driver impedance 8 Ω
- Selector accessible on rear cover
- IP 66 double insulation construction for temperatures between -25°C and +70°C
- High-pass filter for protection of the driver against low frequencies out of range
- Body in UV stabilised self-extinguishing ABS, RAL 7035 grey
- Stainless steel attachment bracket included

## SPECIFICATIONS

## HD 3216T

POWER SELECTION	25-20-15-10-5 W
CONSTANT VOLTAGE	100 V; 70V
FREQUENCY RESPONSE	250 ÷ 10 kHz
SENSITIVITY (1 m / 1 W)	108 dB
MAX SPL	122 dB
COVERAGE ANGLE	130° (HORIZONTAL); 60° (VERTICAL)

# D 5076

DRIVER UNIT

p/n 15110017

- Musical power/RMS: 75/50W
- 1 3/8" W - 18 N threaded horn attachment
- Pressure die-cast compression chamber
- Driver impedance 16 Ω
- Dimensions Ø 98 x 75 mm, weight 1.7 Kg
- Optional TD 507 line transformer



# TD 507

50 V MULTI-TAPPED TRANSFORMER

p/n 13330006

- 50V Multi-tapped line transformer
- Suitable for connecting the D 5076 driver to 100/70V constant voltage lines
- Output power can be selected from four different values: 50-25-12-6W





# ATTENUATORS, AUDIO TRANSFORMERS

- The volume control is made of a control circuit having a 6 position (5 + off) selector and a separated transformer
- Installed on whichever supporting frame for home / office electrical systems by drilling a hole in a blank key and fixing its control circuit
- 3 knobs are included in 3 different colours: white, silver, anthracite
- The maximum depth of the volume control circuits are measured between the inner side of the front panel

## TD 30 30 W UNIVERSAL LINE TRANSFORMER

p/n 13360046



SPECIFICATIONS	TD 30
OUTPUT POWER 4 $\Omega$	15 - 30 W
OUTPUT POWER 8 $\Omega$	7,5 - 15 - 30 W
FREQUENCY RESPONSE	50÷18'000 Hz
DIMENSIONS	87 x 53 x 68 mm
WEIGHT	700 g

## TD 60 60 W UNIVERSAL LINE TRANSFORMER

p/n 13360047



SPECIFICATIONS	TD 60
OUTPUT POWER 4 $\Omega$	15 - 30 - 60 W
OUTPUT POWER 8 $\Omega$	7,5 - 15 - 30 - 60 W
FREQUENCY RESPONSE	50÷18'000 Hz
DIMENSIONS	77 x 77 x 79 mm
WEIGHT	1200 g

## TD 240 240 W UNIVERSAL LINE TRANSFORMER

p/n 13360049



SPECIFICATIONS	TD 240
OUTPUT POWER 4 $\Omega$	60 - 120 - 240 W
OUTPUT POWER 8 $\Omega$	30 - 60 - 120 - 240 W
FREQUENCY RESPONSE	50÷18'000 Hz
DIMENSIONS	98 x 89 x 100 mm
WEIGHT	3100 g

## AT 10Z CONSTANT IMPEDANCE ATTENUATOR

p/n 13160032



- Constant impedance attenuator for speakers with minimum impedance 4  $\Omega$
- Universal mounting on any standard European electrical wall plate.
- 5 selectable positions + OFF volume control

SPECIFICATIONS	AT 10Z
IN/OUT IMPEDANCE	4 $\Omega$
MAX. POWER	10 W
ATTENUATION	0 dB - 6 dB - 12 dB - 18 dB - 24 dB - OFF
MAX. DEPTH	50 mm

## AT 20T 20 W / 100 V TRANSFORMER ATTENUATOR



- Attenuator for constant voltage systems, max 20W
- Universal mounting on any standard European electrical wall plate.
- 5 selectable positions + OFF volume control
- Bypass relay or 3-wire control system for alarm/evac applications

p/n 13160033

SPECIFICATIONS	AT 20T
INPUT VOLTAGE	100 V
MAX. POWER	20 W
ATTENUATION	0 dB - 3 dB - 6 dB - 9 dB - 12 dB - OFF
MAX. DEPTH	50 mm

## AT 40T 40 W / 100 V TRANSFORMER ATTENUATOR



- Attenuator for constant voltage systems, max 20W
- Universal mounting on any standard European electrical wall plate.
- 5 selectable positions + OFF volume control
- Bypass relay or 3-wire control system for alarm/evac applications

p/n 13160035

SPECIFICATIONS	AT 40T
INPUT VOLTAGE	100 V
MAX. POWER	40 W
ATTENUATION	0 dB - 3 dB - 6 dB - 9 dB - 12 dB - OFF
MAX. DEPTH	58 mm

## CT 61 6 POSITION 1 WAY ROTARY SWITCHER



- 5 selectable position + OFF volume control
- To be used with TL 128 autotransformer
- Bypass relay or 3-wire control system for alarm/evac applications

p/n 13160036

SPECIFICATIONS	CT 61
MAX TENSIONE	100 V
MAX. POWER	120 W
MAX. DEPTH	58 mm

## TL 128 120 W LINE TRANSFORMER

1'140 g

↕ 68 x 72 x 85 mm



- The TL 128 transformer can be used in audio systems with constant voltage lines (usually 100 or 70V) to regulate the power of one or more acoustic speakers that have line transformers with a combined power of a maximum of 120 W
- It can be combined with a switch (up to 8 positions), in order to form a volume control that fades at 3 dB intervals

p/n 13360050

SPECIFICATIONS	TL 128
INPUT VOLTAGE	100 - 70 - 50 - 35 - 25 - 18 - 12 V
MAX. POWER	120 W
MINIMUM LOAD IMPEDANCE	83,3 - 41,7 - 20,8 - 10,4 - 5,2 - 2,6 - 1,3 Ω
FREQUENCY RESPONSE	60 ; 18.000 Hz (± 3 dB)

## CP 52 5 POSITION 2 WAY ROTARY SWITCHER



- 5 Line selector for 100V system, load max 120W
- Bypass relay for emergency calls on line 1

p/n 13160034

SPECIFICATIONS	CP 52
MAX TENSIONE D'INGRESSO/USCITA	100 V
MAX. POWER	120 W
MAX. DEPTH	58 mm

# RACK COMPONENTS

For the optimum management of  
the system configurations



MODEL	CR 2609	CR 2615 FV	CR 2628	CR 2642
Part number	17170179	17170129	17170081	17170082
Type	9 U	15 U	28 U	42 U
Base dimensions	600 x 500 mm	600 x 600 mm	600 x 600 mm	600 x 600 mm
Height	470 mm	800 mm	1600 mm	2000 mm
Weight	24 Kg	30 Kg	54 Kg	68 Kg
Max load	25 Kg mountable on rack	100 Kg	320 Kg	350 Kg
Ventilation system	Natural ventilation on sides	Thermostat controlled	Thermostat controlled	Thermostat controlled
Thermal dissipation 25 °c	100 W	3130 W	3280 W	3320 W
Thermal dissipation 35 °c	150 W	2070 W	2160 W	2180 W
Included accessories	-	4 wheels with braking system	-	-
Model door	(included)	AK 2615V	AK 2628V	AK 2642V
Part number door	-	-17100008	-17100009	-17100010

## CR 2609

p/n 17170179

9 UNITS RACK ENCLOSURE STANDARD  
19" WITH TRANSPARENT DOOR



- Steel constructed structure
- Glass front door
- Removable rear panel
- Equipped assembled
- Dimensions: (B x P x H) 600 x 500 x 470 mm
- Color RAL 7035

## CR 2600

RACK ENCLOSURES



- The CR 2600 series rack enclosures are designed to hold all RCF 19" rack standard components.
- They are constructed in compliance with the IEC 297-2 dimensional standard, and the depth is 600 mm for all models.
- The structure is made of steel painted RAL 7035 light grey. The rack enclosures are bake-painted at high temperature using epoxy powders to make the structure unalterable over time and resistant to scratching, abrasion, and atmospheric agents.
- The protection level is IP 30. The CR 2600 SERIES rack enclosures are composed of a basic structure that is assembled simply and quickly by fitting and securing four steel uprights to the upper and lower panels.
- The lower door and side panels are fitted following the wiring operations to facilitate the insertion and connection of the components. The lower panel, which forms the base of the rack, has openings for the passage of external connection cables (speaker lines, power supply, data, etc.) that are sized and shaped to guarantee the electrical safety of the structure. The earthing of the rack complies with current safety regulations.
- For the optimisation of the internal wiring, supports are supplied to gather the cable and attach them in an orderly fashion. The packing materials can be reused for transport the enclosure once it has been wired.
- Front doors are also available, which are useful for to protect the components installed in the rack.

## P AER

p/n 17130149



- Front ventilation panels
- RAL 9005 Nero

## PU 2

p/n 17170146



- 2U Closure Panel
- RAL 9005 Nero

## PU 3

p/n 17170147



- 3U Closure Panel
- RAL 9005 Nero

## PU 4

p/n 17170148



- 4U Closure Panel
- RAL 9005 Nero

## IM 2220

| p/n 13360089

### PORTABLE IMPEDANCE TESTER



- The IM 2220 is a portable instrument, easy to use for measuring the impedance of the constant voltage speaker lines or of a single loudspeaker.
- The test range is quite wide thanks to the three measure fields (20 Ohm, 200 Ohm, 2000 Ohm). It is suitable for both commercial audio and domestic use.
- The IM 2220 is easy to use, comfortable and safe, thanks to the large control knob, to the large display and the high insulation.
- Meets IEC-1010 (EN 61010); CAT III 100V
- Display 3 1/2 digit LCD
- Data HOLD indication
- Automatic switch-off of the pilot tone after 20s unless the LOCK key is pressed
- Automatic switch-off of the device after 15 minutes without being used

#### SPECIFICATIONS

#### IM 2220

SIGNAL TEST FREQUENCY	1 kHz
ACCURACY	± 2%
OPERATING TEMPERATURE	0 ÷ 40°C (32 ÷ 104 °F)
POWER SUPPLY	9 V c.c (6 x 1.5 V AA, ALCALINE)
DIMENSIONS	168 x 110 x 62 mm
WEIGHT	0,5 Kg

## RR 2601

| p/n 17360038

### RACK WHEELS KIT

- Wheels for RCF rack cabinets CR 2628 and CR 2642.
- The kit includes 2 wheels with brake and 2 swivel wheels. Wheel diameter: 80 mm
- The maximum applicable load does not change when wheels are mounted.



## AR 1050

| p/n 17360039

### RACK SUPPORTS

- 1 U accessory for installation in RCF CR2600 series racks



## BH 1042

| p/n 17360040

### BATTERY HOLDER

- Universal battery holder for RCF series "CR2600"



## AC 1503

| p/n 13360112

### CERAMIC TERMINAL WITH THERMAL FUSE

- Accessory with ceramic terminal and a thermal fuse to connect a loudspeaker in sound systems for emergency purposes.



## CJ 428E

p/n 14380021

### FIRE RESISTANT DATA CABLE

Shielded fire resistant cable suitable for the transmission of signals and commands for voice alarm systems, when maximum safety against fire is required. Made of 4 pairs of annealed copper conductors with 0.8 sqmm section. For fixed indoor installations in normal or humid environments. Red external sheath. Sold in coils of 200 m.

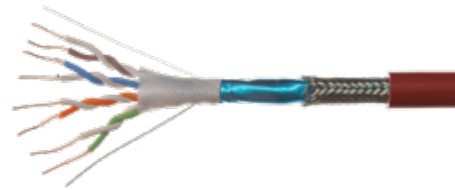


## CJ 428CAT

p/n 12399047

### CAT5 FTP FIRE RESISTANT DATA CABLE

Shielded CAT5 FTP fire resistant cable suitable for the transmission of signals and commands for voice alarm systems, when maximum safety against fire is required. Made of 4 pairs of twisted annealed copper conductors with 0.63 sqmm (AWG22) section. For fixed indoor installations in normal or humid environments. Red external sheath. Sold in coils of 200 m.



## CV 225

p/n 14380032

### SPEAKER CABLE 100V

The CV Series cables are suitable for the transmission of electrical signals and commands for those applications where maximum security is required in situations of fire alarm. They ensure the transmission of the signal to emergency speakers even when exposed to flames, allowing the safe evacuation of the environments where they are installed. The CV Series cable are suitable for fixed installation indoors in wet or normal environments, and temporarily outside. They can be installed on platforms, pipes, conduits and similar systems.



## CA 2-2-C

p/n 12399043

### SPEAKER CABLE

- Shielded bipolar cable

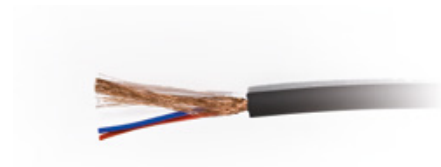


## CA 2-C

p/n 12399042

### SPEAKER CABLE

- Shielded bipolar cable



## AR 2605

p/n 17360027

### FRAME WITH POWER SOCKETS

- 5-socket frame, Schuko and Italian standard, on back-rack support 2U.
- 16A total capacity; cable included
- Portion of Omega bar for installing 5 Omega standard modules





# MOBILE AMPLIFICATION

Portable systems for all the situations in which mobility is important.



## MG 90 10W MEGAPHONE

p/n 13133081



- Extra strong plastic material, highly resistant to dust and humidity
- High intelligibility and speech clarity thanks to the microphone optimization.
- Built-in amplifier and dynamic unit
- Designed to be used even in critical situations
- 500 meters indicative range
- Activating button and volume located on the megaphone grip
- Power supply: 6 "AA" batteries (not included)
- Black body and grip, transparent pavilion

### SPECIFICATIONS

NOMINAL POWER

POWER SUPPLY

TIME OF USE

BEAM OF USE

DIMENSIONS

WEIGHT

### MG 90

10 W

6 Batteries AA (UM-3) (9V DC)

10 ore (talking)

0.45 Km (quiet ambient), 0.25 Km (city)

185 mm / 310 mm (diameter)

0,9 Kg (without batteries)

STANDARD VALUES OF SOUND PRESSURE LEVEL FOR CEILING-MOUNT LOUDSPEAKERS WITH INSTALLATION HEIGHTS OF 3 • 3,5 • 4 M				
p/n	MODEL	INSTALLATION HEIGHT OF LOUDSPEAKERS		
		3,0 METRES	3,5 METRES	4,0 METRES
13133045	PL 40	10 m <sup>2</sup>	20 m <sup>2</sup>	30 m <sup>2</sup>
31.33.060	PL 50	12 m <sup>2</sup>	24 m <sup>2</sup>	36 m <sup>2</sup>
13110214	PL 60	14 m <sup>2</sup>	26 m <sup>2</sup>	41 m <sup>2</sup>
13133042	PL 6X	20 m <sup>2</sup>	38 m <sup>2</sup>	56 m <sup>2</sup>
13133043	PL 8X	22 m <sup>2</sup>	44 m <sup>2</sup>	66 m <sup>2</sup>
13000081	MQ 50C	25 m <sup>2</sup>	47 m <sup>2</sup>	73 m <sup>2</sup>
13133064	DU 50EN	10 m <sup>2</sup>	18 m <sup>2</sup>	28 m <sup>2</sup>
13133078	BS 5EN	10 m <sup>2</sup>	18 m <sup>2</sup>	28 m <sup>2</sup>
13133065	PL 70EN	16 m <sup>2</sup>	30 m <sup>2</sup>	46 m <sup>2</sup>
13133082	PL 68EN	16 m <sup>2</sup>	28 m <sup>2</sup>	43 m <sup>2</sup>
13100009	PL 82EN	21 m <sup>2</sup>	38 m <sup>2</sup>	59 m <sup>2</sup>

The values are calculated for environments with average ambient noise and without specific reverberation characteristics.  
Especially wide area paging systems that are used as emergency voice alarm communication systems in accordance with ISO 7240-19 may require a calculation of the sound pressure level depending on the effective ambient noise.

# ALPHABETICAL INDEX

ITEM	P/N	PAG.	ITEM	P/N	PAG.	ITEM	P/N	PAG.	ITEM	P/N	PAG.	ITEM	P/N	PAG.
A 504-N	14380014	26	BM 3804	14380028	13	DUP 5EN	13100019	49	MMS 3404D	14322020	17	PL 82EN	13100009	45
A 507	14310008	27	BM 3804FM	14380037	13	DXT PLANNER	-	12	MMS 3405P	14322019	17	PL 8X	13133043	46
A 53	14380029	27	BM 7608	14322015	10	EL 7001	63531167	10	MMU 3100	17180042	16	PL 8X B	13100088	46
AC 1503	13360112	68	BM 7608D	14322016	10	EOL 3-9	17170176	13	MP 300	12170094	28	PLP 50EN	13100008	44
AC 501DK	14380035	26	BM 7608DFM	14322014	11	ES 2160	12100053	33	MP 301	12401006	29	PR 4093	17100003	38
AC 502LC	14380034	26	BM 7624D	14322018	11	ES 3080	12135107	34	MP 302	12401007	29	PS 6648	17100006	11
AC 503FS	14380033	26	BS 5EN	13133078	48	ES 3323 II	12135105	32	MP 321	12401008	28	PU 2	17170146	67
AC 7212	17170152	9	BS 8	13133054	48	GS 60	13133084	51	MP 341	12401005	29	PU 3	17170147	67
AC AD 2405	14380022	27	CA 2-2-C	12399043	69	HD 1110	13133030	62	MQ 100L B	13000186	58	PU 4	17170148	67
AC MIC DK	13360247	26	CA 2-C	12399042	69	HD 21EN	13133075	61	MQ 100LW	13000187	58	PX 4116	14250010	23
AC S50DK	14380011	27	CA 5XX	14340017	27	HD 310T	13130001	62	MQ 50C W	13000081	58	QPS 9600	12135102	39
AC S76FL	14380027	27	CJ 428CAT	12399047	69	HD 3216T	13133037	63	MQ 80P B	13000094	59	RC 3005	12399044	13
AC WM-CS	13360206	56	CJ 428E	14380021	69	HD 410T	13133041	62	MQ 80P W	13000096	59	RR 2601	17360038	68
AC XLR-3M3F	13360102	27	CP 52	13160034	65	HD 6045EN	13133085	61	MR 40T	13100035	57	SI 7120	17170153	9
AM 1125	12135082	38	CR 2609	17170179	66	HE 2006	14115023	23	MR 40T W	13100037	57	SV 7982	17170140	10
AM 2080	12135062	34	CR 2615 FV	17170129	66	HPS 1500	12135055	39	MR 50T	13100039	57	TD 240	13360049	64
AM 2160	12135058	35	CR 2628	17170081	66	HPS 2500	12135054	39	MR 50T W	13100041	57	TD 30	13360046	64
AM 2320	12135059	35	CR 2642	17170082	66	IE 3008	12399015	13	MR 52EN B	13100011	57	TD 507	13330006	63
AR 1050	17360039	68	CS 3082	13000232	56	IM 2220	13360089	68	MR 52EN W	13100010	57	TD 60	13360047	64
AR 1620	17360031	27	CS 6520EN	13133079	56	IPS 1700	12135089	40	MS 1033	17170108	41	TL 128	13360050	65
AR 2605	17360027	69	CS 6940EN	13105006	56	IPS 2700	12135091	40	MT 7308EN	17170159	8	TX 4016	14250008	23
AR 3000	13360101	32	CT 61	13160036	65	IPS 3700	12135093	40	MU 7100EN MKII	12100063	8	UP 2162	12135065	36
AT 10Z	13160032	64	CV 225	14380032	69	IPS 700	12135087	40	MX 3250/2	17170177	12	UP 2321	12135061	36
AT 20T	13160033	65	D 5076	15110017	63	IT 3010	12399049	13	MX 3250/4	17170183	12	UP 8501	12135070	37
AT 40T	13160035	65	DEC 6104	17180034	18	IT 4000	13360341	26	MX 3250/6	17170184	12	UP 8502	12135077	37
BD 2412EN	13133074	54	DM 41	13000049	50	LI 7903	17170141	10	MX 3500/2	12100009	12	UP 8504	12135079	37
BD 5EN	13133077	55	DM 41-B	13000387	50	LT 7208EN MKII	17100015	9	MX 3500/4	12100010	12	WMF 33EN	13100046	47
BE 2012	14322022	15	DM 61	13000050	50	MA 4	13360367	57	MX 3500/6	12100011	12	ZE 2200	17170167	15
BE 3806	14380036	13	DMS 6410	17180011	19	MA 4W	13360368	57	OT 3500	17120056	26	ZM 2100	17170166	14
BH 1042	17360040	68	DMS 6410X	17180013	19	MA 5	13360369	57	P AER1	17130149	67	ZM 2124	12135085	14
BM 2006	14322021	15	DMU 6100	17180010	18	MA 5W	13360370	57	PL 40	13133045	45			
BM 3001	14322008	24	DP 1420EN	13133071	54	MC 4064	14115025	22	PL 50	13133060	45			
BM 3001	14322008	33	DP 4	13000106	55	MC 5002	14115026	22	PL 50EN	13100007	44			
BM 3001	14322008	35	DP 4EN	13133076	54	MC 5054	14115024	22	PL 60	13110214	46			
BM 3003	14322012	25	DP 5EN	13133076	55	MD 7800	14115013	22	PL 68EN	13133082	44			
BM 3003	14322012	32	DU 31AT	13000220	51	MF 33EN	13100043	47	PL 6X	13133042	46			
BM 3014	14320135	24	DU 50EN	13133064	49	MG 90	13133081	70	PL 6X B	13100087	46			
BM 3022	14322013	25	DU 60EN	13133083	49	MH 61EN	13100042	61	PL 70EN	13133065	44			

ITEM	P/N	PAG.	ITEM	P/N	PAG.	ITEM	P/N	PAG.	ITEM	P/N	PAG.	ITEM	P/N	PAG.
MX 3500/2	12100009	12	MQ 80P B	13000094	59	HD 21EN	13133075	61	PX 4116	14250010	23	CR 2642	17170082	66
MX 3500/4	12100010	12	MQ 80P W	13000096	59	DP 4EN	13133076	54	A 507	14310008	27	MS 1033	17170108	41
MX 3500/6	12100011	12	DP 4	13000106	55	DP 5EN	13133076	55	BM 3014	14320135	24	CR 2615 FV	17170129	66
ES 2160	12100053	33	MQ 100L B	13000186	58	BD 5EN	13133077	55	BM 3001	14322008	24	SV 7982	17170140	10
MU 7100EN MKII	12100063	8	MQ 100L W	13000187	58	BS 5EN	13133078	48	BM 3001	14322008	33	LI 7903	17170141	10
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UP 8501	12135070	37	MR 52EN B	13100011	57	AT 20T	13160033	65	BM 7624D	14322018	11	ZE 2200	17170167	15
UP 8502	12135077	37	DUP 5EN	13100019	49	CP 52	13160034	65	MMS 3405P	14322019	17	EOL 3-9	17170176	13
UP 8504	12135079	37	MR 40T	13100035	57	AT 40T	13160035	65	MMS 3404D	14322020	17	MX 3250/2	17170177	12
AM 1125	12135082	38	MR 40T W	13100037	57	CT 61	13160036	65	BM 2006	14322021	15	CR 2609	17170179	66
ZM 2124	12135085	14	MR 50T	13100039	57	TD 507	13330006	63	BE 2012	14322022	15	MX 3250/4	17170183	12
IPS 700	12135087	40	MR 50T W	13100041	57	TD 30	13360046	64	CA 5XX	14340017	27	MX 3250/6	17170184	12
IPS 1700	12135089	40	MH 61EN	13100042	61	TD 60	13360047	64	AC S50DK	14380011	27	DMU 6100	17180010	18
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IPS 3700	12135093	40	WMF 33EN	13100046	47	TL 128	13360050	65	CJ 428E	14380021	69	DMS 6410X	17180013	19
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IT 3010	12399049	13	PL 8X	13133043	46	MA 5	13360369	57	BM 3804FM	14380037	13			
MP 341	12401005	29	PL 40	13133045	45	MA 5W	13360370	57	D 5076	15110017	63			
MP 301	12401006	29	BS 8	13133054	48	MD 7800	14115013	22	PR 4093	17100003	38			
MP 302	12401007	29	PL 50	13133060	45	HE 2006	14115023	23	PS 6648	17100006	11			
MP 321	12401008	28	DU 50EN	13133064	49	MC 5054	14115024	22	LT 7208EN MKII	17100015	9			
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DM 61	13000050	50	DP 1420EN	13133071	54	MC 5002	14115026	22	P AER1	17130149	67			
MQ 50C W	13000081	58	BD 2412EN	13133074	54	TX 4016	14250008	23	CR 2628	17170081	66			

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