

XPR14N/24-48

DS 7327166-EN - Rev. 1801

WEATHERPROOF SELF-AMPLIFIED LOUDSPEAKER

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- Execution in plastic case, IP55 protection for outdoor or indoor use
- Automatic variation of the output power up to a maximum power of 12W as a function of background noise.
- Manual preset of the minimum output power with a range of 2,5mW to 12W (in the absence of noise) in conformity with the site dimensions.
- Preset of the output volume to background noise ratio

A difficult problem to find a solution for, while working with sound reinforcement system, is the one related to loudspeakers output power adjustment.

Ambient noise variation, which in industrial environments may be of great amplitude, makes not suitable, for a good intelligibility of broadcast messages, a fixed type of output power adjustment not proportional to the ambient noise.

The output power is furthemore dependent on the area wich has to be covered; for these reasons, an ideal loudspeaker has to allow the minimum output power selection, without noise, in order to cover the required area and must increase the output power proportionally to the ambient noise increase.

The XPR14N/24-48V is an amplified loudspeaker, with



plastic case and protection degree IP55 in conformity to IEC 60529, for which the output power varies accordingly to the ambient noise.

Furthemore it is possible to set the minimum output power in no noise condition by means of dip-switches, installed on a setting card placed in the loudspeaker.

The setting card can be accessed by removing the plug located on the back side of the speaker.

The same dip-switches are also used to set the ratio between output power and ambient noise.

Installation, Operation and Maintenance Procedures

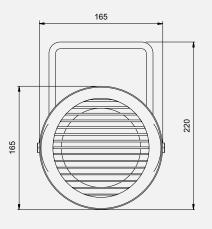
- When mounting the loudspeaker please ensure that it is re-assembled in the same manner in which it was received.
- Fasten bracket with minimum 2 screws.
- To open the loudspeaker turn the front gently counter clockwise and pull.
- To close the loudspeaker, align the two marks on the front and rear parts, and turn the front gently clockwise till it stops.
- Use the attached stop screw to secure the front from undesirable opening during operation. (Optional)
- For optimum performance, always use the correct voltage / power and operate within the frequency limits as stated.
- Do <u>not</u> open loudspeaker when energized.
- This loudspeaker is supplied with a 2 year warranty against defective workmanship.

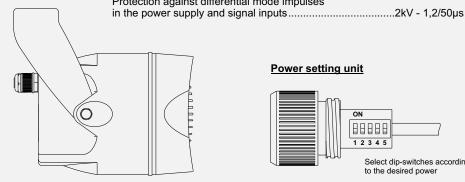
Specifications

Material / Colour	ABS V0 / RAL7035
Mounting	Bracket
Termination	Internal fastom
Weight	1,84kg
IP-rating	
SPL 1W/1m	
SPI rated power	

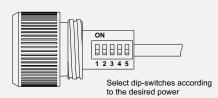
Amplifier		Switching c	lass "D"
Range of the nominal pow	ver supply	from 24 to	o 48Vdc
	from 24V-15% to 48V +20		
	at quiescence, Vps =		
P	at quiescence, Vps =		
	at the nominal power, Vps =		
	at the nominal power, Vps =	48V≤	350mA
	0dB		
	at nominal power, -1dB		
	at nominal power, -3dB	250Hz to	>10kHz
	is, continous (f = 450 to 10kH		
Maximum distortion at nor		,	
	with Vps =	24V	.≤1.4%
	with Vps =	48V	≤1%
Climatic operating condition	ons in range of nominal volta		
3	(sinusoidal mode, Pr		o +55°C
Protection against differer		,	
		0111	0/=0

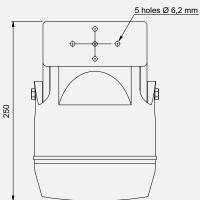
Frontal view





Power setting unit





Top view

Connections description

- 1 Acoustic signal input +
- 2 Not used
- 3 Power supply +24 / +48 Vdc
- 4 Acoustic signal input -
- 5 Shield
- 6 Power supply -24 / -48 Vdc

SW3	SW4	SW5	Output power
OFF	OFF	OFF	12W
ON	OFF	OFF	1,25W
OFF	ON	OFF	600mW
ON	ON	OFF	300mW
OFF	OFF	ON	150mW
ON	OFF	ON	40mW
OFF	ON	ON	10mW
ON	ON	ON	2,5mW

Regulation of the noise gain of the amplfier

SW1	SW2	Gain
OFF	OFF	0 (default)
ON	OFF	+3dB
OFF	ON	+6dB
ON	ON	+7,5dB

Amplitude - Frequency response diagram

