

## GENELEC® 1024B MONITORING SYSTEM

- recording studios
- large broadcasting, drama and music studios
- post-production
- cutting rooms



### DESCRIPTION

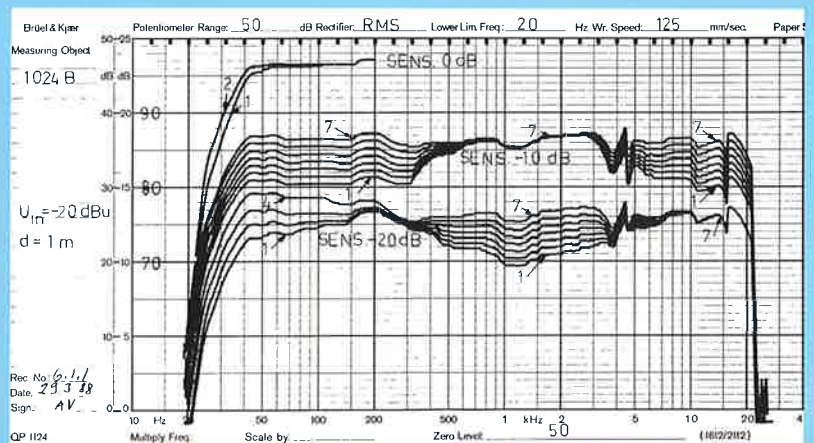
The GENELEC® 1024B is a three-way system with three integrated power amplifiers and an active crossover network. This standard reference monitor is designed for large broadcasting, recording and music studios.

The low frequency system utilizes a 385 mm driver in a 110 litre vented box. Together with the active filter stage the system response has 6th order Butterworth characteristics extending to 32 Hz (-3 dB).

Midrange frequencies are reproduced with a 80 mm soft dome unit. The crossover frequencies are located at 380 Hz and 3,8 kHz. The treble driver is a 28 mm soft dome loaded with a short horn. To protect the drivers from excessive power an electronic overload protection is incorporated in the midrange and treble amplifiers.

The crossover network consists of a balanced input stage with volume control and three bandpass filters. The combined slope and phase characteristics of the filter and the respective drivers are aligned to feed all drivers acoustically in the same phase and equal delay over their crossover frequencies.

In order to change system's overall sound balance in different acoustic conditions five tone control switches are provided. Levels in bass, midrange and treble channels are adjustable in 1 dB steps down from the calibrated settings. The bass channel has in addition 'TILT' and 'ROLL-OFF' switches which affect only in the low bass range. Maintenance of the 1024 B is easy because of its simple mechanical construction. A diagnostic connector is provided for rapid checking of all essential operating voltages. A short form operating and servicing guide is printed on the amplifier's rear panel.



Effect of control settings measured in free field conditions.



Directional characteristics and total radiated acoustic power response (measured in reverberation chamber at 1/3 octave bands).

# G

## SYSTEM SPECIFICATIONS

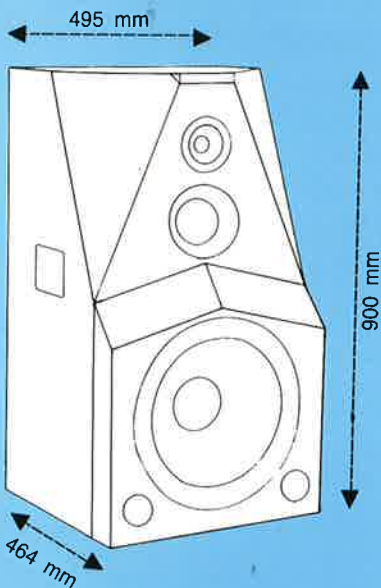
## AMPLIFIER SECTION

## CROSSOVER SECTION

Lower cut-off frequency, -3 dB	32 Hz
Upper cut-off frequency, -3 dB	20 kHz
Passband response tolerance, free field	± 3 dB
Maximum continuous sine wave acoustic output @ 1 m on axis in free field,	≥ 114 dB
Maximum peak acoustic output per pair behind a console, 2 m from the engineer	≥ 125 dB
-2 dBu will produce 114 dB SPL in free field @ 1 m on axis with the controls at 'CAL' position	
Self generated noise level in free field @ 1 m on axis	≤ 10 dB (A)
Harmonic distortion at 100 dB SPL @ 1 m on axis	
f ≤ 200 Hz	≤ 3 %
f > 200 Hz	≤ 1 %
Horizontal treble radiation loss at 30 deg off axis	
f = 10 kHz	≤ 3 dB
f = 15 kHz	≤ 4 dB

Drivers:	Bass	385 mm cone
	Mid	80 mm dome
	Treble	28 mm dome

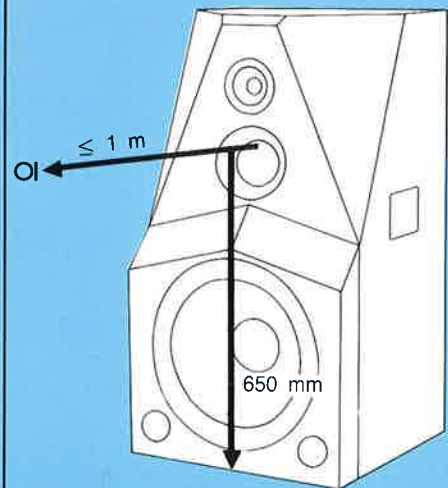
Dimensions:  
Weight 68 kg



Input connector	XLR female
Bass amplifier output power,	
continuous	270 W
transients	360 W
Middle amplifier output power,	
continuous	80 W
transients	360 W
Treble amplifier output power,	
continuous	10 W
transients	180 W
Slew rate	100 V / μs
Amplifier system distortion at nominal output	
THD	≤ 0,05 %
SMTE-IM	≤ 0,05 %
CCIF-IM	≤ 0,05 %
DIM100	≤ 0,05 %
Mains voltage, specifications applicable	
operation	220 VAC
operation	198...242 VAC
Other mains voltage specifications available on request.	
Power consumption,	
idle	50 VA
full output	700 VA

Input impedance	10 kΩ balanced
Input level for maximum output, continuously variable	
-2...+18 dBu	
Subsonic attenuation	12 dB @ 15 Hz
Ultrasonic attenuation	3 dB @ 30 kHz
Crossover frequency,	
bass / midrange	400 Hz
midrange / treble	3,8 kHz
Tone control operation range,	
1 dB steps	bass 0...-6 dB
	middle 0...-6 dB
	treble 0...-6 dB
Bass roll-off filter,	
2 positions	-4 or 0 dB @ 35 Hz
Bass tilt control,	
4 steps,	
2 dB / step	-6...0 dB @ < 150 Hz

The system acoustical axis:



# GENELEC

TEHTAANTIE 17 SF-74100 IISALMI  
Tel Int. +358 77 13311 Telex 4452 audio sf  
Telefax Int. +358 77 12267