

Specifications 2610

Amplifier Response:

Measuring Range:

10 μ V to 30V FSD with LED indication of particular meter range selected

Frequency Range (without filters):

2 Hz to 200 kHz (± 0.5 dB)

10 Hz to 50 kHz (± 0.2 dB)

Phase Deviation (without filters):

$\leq \pm 5^\circ$ between any two instruments in range from 20 Hz up to 20 kHz

Overall Gain (for 1 V output):

From -30 to $+100$ dB selectable in accurate 10 ± 0.05 dB steps, plus extra 0 to 10 dB gain for continuous adjustment between steps. LED indication of particular input and output gain setting selected

Direct Input:

Via standard B & K coaxial socket

Impedance: 1 M Ω || 70 pF

Max. Input Voltage: 42 V RMS in accordance with IEC 348, but can withstand test voltages up to 220 V AC (50 Hz) and 400 V DC

Preamp. Input:

Via standard B & K 7 pin microphone preamplifier socket. 0; $+28$ and $+200$ V microphone polarization can be selected

Filter Modes:

22.4 Hz: High pass filter with low frequency attenuation slope of 18 dB/octave (60 dB / decade)

A Weighting: In accordance with IEC 651 (Type O) for precision sound level meters

Ext: Provision for connection of external filters in series with one or both internal filters

Ext. Filters:

Provision for connection of external filters via two BNC sockets on rear panel

To (Ext. Filter) Input: 1 V RMS nominal, 10 V peak max. output. Max. load 5 k Ω || 200 pF

From (Ext. Filter) Output: 1 V RMS nominal, 10 V peak max. input. Input impedance 1 M Ω || 50 pF

Meter Indication:

Moving coil meter with interchangeable meter scales and LED indication of particular FSD measurement range selected

Measurement Ranges:

10 μ V to 30V FSD selectable in accurate 10 ± 0.05 dB steps

Indicating Ranges:

0.3 to 10V and 1 to 30V logarithmic range plus 0 to 30 dB linear range

Indicating Modes:

True RMS with accuracy better than ± 0.5 dB (± 0.2 dB typical) for signal crest factors up to 10 at full scale, or up to 20

for lesser deflections

Max. (positive or negative) peak with accuracy better than ± 0.5 dB (± 0.2 dB typical) for signals as short as 50 μ s

Time Weighting Characteristics:

"Fast" and "Slow" in accordance with IEC R 651 (Type O), plus 20 s effective averaging time for RMS measurement. 0.2 s decay time constant for peak measurements

Hold:

Meter and DC output hold Max. RMS or Max. Peak level of measured signal. Hold decay < 0.2 dB / min at 25°C

Reset: Reset button for meter and DC output

Overload Indication:

Gain indicator LEDs blink when the input and (or) output section of the 2610 are overloaded by positive or negative signal peaks of too high a level

Overload Level: Equivalent to 5 or 10 times FSD on meter. Level selected using switch on rear panel

Min. Overload Duration: 200 μ s

Duration of Warning: 0.5 s or longer

Reference Voltage:

Signal: 50 mV RMS (~ 94 dB re 1 μ V), 1 kHz sinus

Amplitude Stability: Better than 2% between $+5$ and $+40^\circ\text{C}$

AC Outputs:

From output section amplifier via standard B & K coaxial socket on front panel

Output Voltage: 1 V RMS re FSD, 10 V peak max with max load of 10 k Ω || 200 pF

Output Impedance: $\sim 100 \Omega$

From Recorder Amplifier via BNC socket on rear panel

Output Voltage: 1.6 V RMS re FSD, 16 V peak max. with max. load of 10 k Ω || 200 pF

Output Impedance: $\sim 50 \Omega$

DC Output:

From RMS and Peak Rectifier via BNC socket on rear panel

Output Voltage: 100 mV/dB, 5 V DC re FSD, 7 V (10 mA) max.

Output Impedance: $\sim 50 \Omega$

Dynamic Range: RMS $+20$ to -50 dB re FSD. Peak $+20$ to -40 dB re FSD

Harmonic Distortion:

Input Section: $< 0.01\%$ at 1 kHz $< 0.1\%$ at 50 kHz. Max. load 5 k Ω || 200 pF

Output Section: $< 0.1\%$ at 1 kHz $< 0.3\%$ at 50 kHz. Max. load 10 k Ω || 200 pF

Noise Referred to Input:

Maximum amplification with input short circuited

Input Section: $< 5 \mu\text{V}$ RMS (Lin 2 Hz to 200 kHz). $< 1.5 \mu\text{V}$ RMS (A weighted)

Output Section: $\leq 31.6 \mu\text{V}$ (2 Hz to 200 kHz)

Electromagnetic Compatibility:

Complies with Class B device of the American FCC Rules

Power Requirements:

100, 115, 127, 200, 220, 240 V $\pm 10\%$ (50 to 400 Hz) AC ~ 25 VA. Complies with Safety Class II of IEC 348

Temperature Range:

Operation: $+5$ to $+40^\circ\text{C}$ ($+41$ to $+104^\circ\text{F}$)

Storage: -25 to $+70^\circ\text{C}$ (-13 to $+158^\circ\text{F}$)

Humidity:

0 to 90% relative humidity

Cabinet:

Supplied as model A (light-weight metal cabinet), B (model A in mahogany case), or C (as A but with flanges for standard 19 inch racks)

Dimensions (A cabinet):

Height: 133 mm (5.2 in)

Width: 430 mm (16.9 in)

Depth: 200 mm (7.9 in)

Weight (A cabinet): 5.2 kg (11.5 lb)

Meter Scales Included:

Voltage and dB scale SA 0238
dB SPL (28 - 89 mV/Pa) scale SA 0252
dB SPL (5 - 16 mV/Pa) scale SA 0253
ms $^{-2}$ universal scale SA 0250
See General Accessories Product Data for other scales available

Accessories Included:

1 Power cable AN 0020
2 BNC plugs JP 0035
2 B & K coaxial plugs JP 0101
2 Banana plugs JB 0002
1 Preamp. plug adaptor DB 2609

Accessories Available:

B & K to BNC Input Adaptor JP 0144
10:1 Input Probe ZC 0016