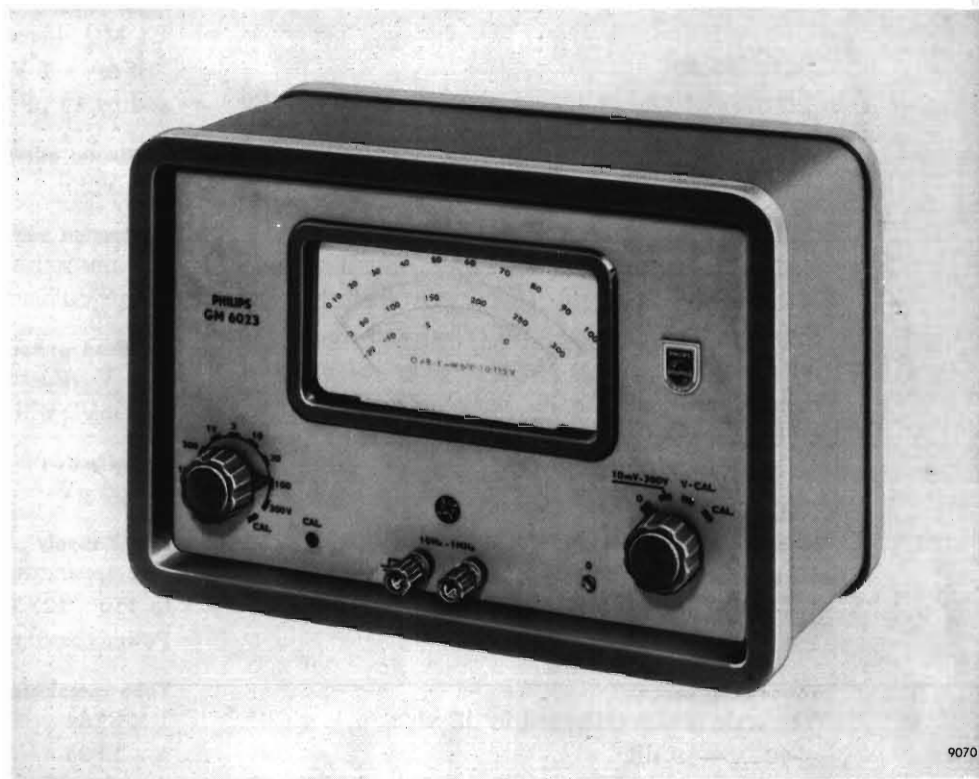


PHILIPS

**L.F.-Millivoltmeter
Type GM 6023**



9070

Features

- Frequency range 10 c/s - 1 Mc/s
- Wide measuring range: 1 mV to 300 V
- High input impedance: 1.5 M Ω
- Low input capacitance: 15 to 25 pF
- Calibration voltage incorporated
- Easily portable

Industrial equipment division
Electronic measuring apparatus
L.F.-Millivoltmeter
Type GM 6023



Application

The GM 6023 is a sensitive and robust valve voltmeter, its high sensitivity and compact dimensions making it equally suitable for laboratory, work-bench and field use.

Description

The input signal is applied through a compensated high-impedance attenuator, a cathode follower and a low-impedance step attenuator to an RC amplifier, the output of which is applied to a germanium-diode bridge.

The indicating meter is connected across the output of this bridge. Negative feedback is applied to the amplifier. This assures good linearity and renders the calibration independent of valve ageing and/or mains voltage variation. The instrument is provided with calibration voltages to check the amplifier.

Technical data

Measuring range

10 mV (f.s.d.) - 300 V subdivided into 10 ranges:
10 - 30 - 100 - 300 mV
1 - 3 - 10 - 30 - 100 - 300 V

Power level range

The scale is also calibrated in dB viz.:

-60 ... -38 dB
-50 ... -28 dB
-40 ... -18 dB

etc. up to

+30 ... +52 dB

Frequency range

10 c/s - 1 Mc/s

Overall accuracy

5 % from 20 c/s up to 20 kc/s

8 % from 10 c/s up to 20 c/s, and

200 kc/s up to 1 Mc/s

Input impedance

1.5 M Ω shunted by 25 pF in the positions:

"10 mV - 1 V",

and by 15 pF in the positions "3 V - 300 V"

Maximum allowable DC voltage at measuring point

300 V

Calibration voltage

The instrument can be checked with an internal 50 c/s calibration voltage.

Overload protection

300 V AC connected to the voltmeter in position "10 mV" will not harm the instrument.

Predeflection

< 100 μ V

Mains supply

The apparatus is mains supplied and can be adapted to 110 - 127 - 220 V (40 ... 100 c/s)

Power consumption 10 W

Tube complement

1 \times 85Az 1 \times OA200

3 \times EF95 1 \times OA202

4 \times OA73 1 \times SR250 - B100

Dimensions and weight

Height 16 cm or approx. 6⁵/₁₆"

Width 23.5 cm or approx. 9³/₁₆"

Depth 11.5 cm or approx. 4¹/₂"

Weight 2.5 kg or approx. 5¹/₂ lbs

