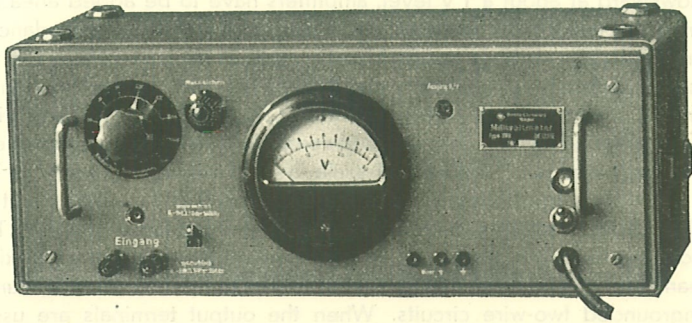




# TYPE UVU MILLIVOLT-METER



## Specifications:

|  |   |
|--|---|
| calibration  | in volts (linear scale);<br>db-calibration is optional  |
| ranges   | <b>1 . . . 3/10/30/100 millivolts</b><br><b>0.3/1/3/10/30 volts</b>   |
| accuracy   | ± 5% of full-scale  |
| input terminals  | balanced unbalanced<br>2 binding posts concentric shielded<br>5/32" diameter jack 33/64" I.D.<br>1 3/16" separation |
| input impedance  | ≧ 30 kilohms 1 megohm,<br>shunted by approx.<br>60 μf   |
| frequency range  | <b>30 cycles to 20 kilocycles</b> <b>30 cycles to 200 kilocycles</b>  |
| output voltage   | 0,3 volts (full scale)  |
| output terminals                                       | concentric shielded jack 33/64" I.D.  |
| output permissible load impedance                      | 100 kilohms in parallel with a capacitance<br>not to exceed 60 μf   |
| maximum gain for headphone operation (4000 ohms units) | approx. 60 db   |
| noise level  | less than 1%  |
| calibration-check                                      | by means of built-in voltage-standard   |
| power supply   | 110/125/150/220 volts, 40 to 60 cycles  |
| power input  | 20 watts  |

**Dimensions:** 18½ × 7½ × 10½ inches

**Weight:** 66 pounds

|                                   |                                 |
|-----------------------------------|---------------------------------|
| <b>ROHDE &amp; SCHWARZ MUNICH</b> | ORDER NUMBER<br><b>BN 12032</b> |
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## TYPE UVU MILLIVOLTMETER

**Uses.** Accurate metering facilities for small alternating signals are important to general measuring practice. As conventional tube voltmeter ranges are limited downward at about a 1 v level, amplifiers have to be added ahead of the meter, whenever smaller voltages are to be measured. High impedance input is very desirable, making possible measurements of tube-grid drive without appreciably disturbing operating conditions. For wire communications engineering, a balanced input is required, as a rule, and the output end will have to meet specified levels. The Millivoltmeter UVU fills these requirements. Its reading accuracy is  $\pm 5\%$  of full scale over a frequency range of 30 c to 200 kc. The high input impedance of the unbalanced (1 megohm) input makes possible correct metering even with rather high-impedance sources. The balanced input section featuring an internal impedance in excess of 30 kilohms is meant for balanced measurements of all kinds, for instance measurements on ungrounded two-wire circuits. When the output terminals are used, the device will operate as an amplifier with a maximum gain of 40 db.

**Description.** The set consists of a three-stage amplifier incorporating a peak-voltmeter. The meter ranges are achieved by switching taps on a pre-amplifier voltage-divider. With unbalanced operation, the input is fed directly into the set; with balanced operation, a suitable transformer is interposed. Head-phone terminals are provided for use of the set as an audio amplifier with a maximum linear gain approximating 60 db. The built-in meter is automatically cut off whenever the meter extension terminals are used. Proper operation of the device may be checked at any time by switching to „Checking“ and are re-adjusting the calibration-setting by means of the built-in voltage standard. Any drift of the voltage calibration from normal, because of aging tubes etc., can easily be compensated for, thus restoring reading accuracy. The built-in regulated power supply maintains the specified accuracy limits of  $\pm 5\%$  of the full scale notwithstanding power line fluctuations between 180 and 230 v. Noteworthy is the rugged design of the set. This applies not merely to the mechanical lay-out including the strong steel-casing with removable lock, which protects the device from damage in transport, but as well to its electrical performance. For stationary purposes, it mounts easily in our standard meter rack type 450 (panel-size 17 11/16"  $\times$  6 5/16"), or, by means of an adapter, into a 19 inches standard rack. In such cases, the set will be delivered with a dust-hood instead of the steel casing (please specify when ordering).