

Potential Scanner WENKING MVS 98

The voltage scan generator MVS 98 has been designed as an auxiliary unit for potentiostats which do not have a built - in scan generator.

The voltage ramps or triangles are produced by a precision voltage integrator, resulting in truly smooth ramps of high linearity.

The voltage scan generator MVS 98 produces either single ramps, single triangles or periodic triangles from very slow rates (3.6 mV/h) up to very fast rates (500 V/s). Adapted to the requirements of electrochemical potential control, the output voltage of the generator runs at a pre - set slope from an accurately defined initial offset potential to the defined end potential and stops there or returns to the initial offset. The polarity of start and end or reverse potential can be selected so that the scan can run from any start potential within ± 5 V across a range of up to 5 V to any end potential. The total scan range can be preselected in six coarse steps from ± 100 mV to ± 5 V. Within these spans the start potential and scan range can be set accurately by 10 - turn potentiometers.

The slope of the scan can be varied within wide limits. On multiplier step 1 slopes can be obtained within the limits of approximately 10 μ V/sec. These scan ranges can be reduced at smaller scan rates by the multiplier switch a further power of ten or increased by a factor of 5, so that the total rate of slopes can be varied from about 3.6 mV/h to 500 V/s. The ramps can be stopped and continued at any time.



The MVS is useful not only for electrochemical purposes, moreover for all applications, which demand truly smooth control voltages, where otherwise high - resolution D/A - converters would be required.

SPECIFICATIONS MODEL MVS 98

AC - power	230 V, 50 - 60 Hz, 10 W, (optionally 115 V)
Stabilisation range	+ 15% of nominal line voltage
Modes of operation	single ramp, single triangle, periodic triangle
Scanning rate	7 coarse positions for the slope: 0,1 mV/s to 100V / s
Slope calibration accuracy	1% to 5%, deviations increasing with decreasing scanning rate
Linearity	better than 0.2%
Initial voltage and scan range settings	separately selectable in polarity and magnitude 1 div. of the dial correspond to 1 mV, multiplied with "Set Voltage" factor $\pm 0,2$ % tolerance referred to the total range
Set Voltage Multipliers	scale factor 0.2, 0.5, 1, 2, 5
Long term stability of the output voltage	± 1 mV multiplied with at 1 V output range (zero fluctuations included)
Signal to noise ratio	better than 80 dB ("Multiplier" position 1)
Output	Single ended, floating or grounded, short circuit protected
Output resistance	less than 1 Ohm within ± 5 V and ± 5 mA (maximum ± 10 V at ± 1 mA)
Trig Input	5 V TTL (active = low)
Trig output	Optocoupler output
Dimensions	
Front panel (w x h)	333 x 153 mm
Housing (w x h x d)	340 x 160 x 210 mm
Weight net	2,5 kg

Modified specifications available on request

BANK
ELEKTRONIK

Bank Elektronik - Intelligent Controls GmbH
Giessener Strasse 60 D - 35415 Pohlheim
Phone (+49)-6403-609860 Fax -6098622 E-mail info@bank-ic.de

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