

Specifications

Measurement functions	DC, AC, AC+DC voltages
Frequency range	DC, 10 Hz to 25 MHz
Voltage range	DC: ± 0 to 300 V AC, AC+DC: 50 μ V to 300 V
Range selection	AUTO, HOLD, FIX
Input	BNC connector, floating
Input impedance	1 M Ω shunted by 40 pF
Maximum input voltage	300 V _{rms} , 500 V _p max. 1×10^8 V/Hz
Display	LCD, 4½ digit result display, digital and analog readout in V, W, dBV, dBm, dB μ V or dBu; difference, deviation in % or dB and ratio to a reference value
IEC/IEEE bus	fitted as standard, all functions

AC voltage measurement

Voltage range	50 μ V to 300 V
Ranges and resolution	1 mV to 300 V, 10-dB steps, maximum reading 3800 or 12000 ± 1 digit, maximum resolution 1 μ V
Selectable lowpass filters	20 kHz, 100 kHz Butterworth, (3-dB cutoff frequency, 40 dB/decade)
Selectable highpass filters	10 Hz, 100 Hz, 1 kHz (lower meas. limit, AC component in AC+DC)
Measurement speed at lower frequency limit ¹⁾ (AC component in AC+DC)	time of triggered measurement readout rate min. meas. frequency
Speed 4	1.3 s 10/s 10 Hz
Speed 5	250 ms 10/s 100 Hz
Speed 6	32 ms 20/s 1 kHz
Error limits	see table for RMS measurement, plus 10 digits for DC coupling (inherent noise „cancelled out“ by zero function)
Maximum crest factor	7
Weighting error	crest factor <3: included in basic error crest factor <5: 1% crest factor <7: 3% for spectral components up to 25 MHz

Temperature effect	% of rdg/°C	frequency (MHz)
	≤ 0.1	<10 (<10)
	≤ 0.15	<20 (<12)
	≤ 0.3	<25 (<15)
	≤ 0.8	- (<20)
	values in parentheses refer to V _{in}	
	<3 mV	

DC voltage measurement

Voltage range	± 0 to 300 V
Ranges and resolution	10 mV to 1000 V, 20-dB steps, maximum reading 12000 ± 1 digit, maximum resolution 1 μ V
Measurement speed	time of triggered measurement readout rate
Speed 4	1.3 s 10/s
Speed 5	250 ms 10/s
Speed 6	32 ms 20/s
Error limits	$\pm(0.1\%$ of rdg + 10 digits)
Temperature effect	<(0.01% of rdg + 1 digit)/°C

General data

Operating temperature range	0 to +50 °C, for use in class 1 to IEC 359
Storage temperature range	-40 to +70 °C
Permissible humidity	20 to 80% (no condensation)
Mechanical strength	to IEC 359 class 1
RFI suppression	to DBP regulations 1046/1984
Power supply	100/120/220/240 V $\pm 10\%$, 47 to 440 Hz (25 VA), safety class 1 to VDE 0411 and IEC 348
Dimensions (W x H x D)	219 mm x 103 mm x 350 mm
Weight	4.5 kg

Ordering information

Order designation	► RMS Voltmeter URE 2 350.5315.02
-------------------	--------------------------------------

¹⁾ When the measurement speed is increased, the required highpass filter is automatically switched into circuit. At lower measurement speeds, the higher-frequency highpass filters can be selected as desired. There are no speeds 0 to 3.

Error limits of RMS measurement (23 \pm 5 °C)

