

#### 4.14. BOX OF TANGENT MEASURES OF LOSS ANGLE



It is intended for the reproduction of tangent of loss angle during calibration (graduation) of single- and multi-valued measures of the tangent of loss angle of the 1st rate.

It can be used for manual or remote reproduction of tangent of loss angle ( $\text{tg}\delta$ ) during calibration (graduation) of exemplary 1<sup>st</sup>-rate unambiguous and multi-valued measures of the tangent of loss angle and for calibration of exemplary 1<sup>st</sup>-rate bridges of alternating current by means of the direct measurement method at a power of 100 ... 10000pF.

The box reproduces the tangent of loss angle ( $\text{tg}\delta$ ) at the specified capacitance (C) and active resistance (R) values, and provides an output of parameters to the liquid crystal display.

##### Technical specifications:

Operating frequencies, kHz	1, 10, 100
Assignment error of the $\text{tg}\delta$ value at a frequency of 1 kHz	$\leq 2 \cdot 10^{-5}$
The range of capacitance values	from 100 pF, 1000 pF and 10000 pF
Reproduction range of the tangent of loss angle	$2 \cdot 10^{-5} \dots 1$
Maximum permissible error of capacity reproduction at a frequency of 1 kHz	no more than $\pm 0,1\%$
Maximum permissible absolute error of $\text{tg}\delta$ reproduction at a frequency of 1 kHz	no more than $\pm(0,001 \cdot \text{tg}\delta + 2 \cdot 10^{-5})$
Box supply	from the internal network unit
Power consumption	no more than 10 VA
Time of operation mode setup of the box under normal working conditions	no more than 0,5 h from the moment of switching on
Time of continuous work	unlimited
Connection of the box	four-point
Control modes	manual, using the keyboard or via the serial interface (RS232)
Mean time between failures, h	not less than 10000
Full average service life, years	not less than 6
Box weight, kg	no more than 5
Dimensions, mm	310x290x130