



- Designed for capacitance meters calibration
- Capacitance range 100 pF – 100.00 μF
- Capacitance accuracy 0.25%
- Operating voltage 50 V
- User defined curves (conversion tables)
- RS232 (optionally USB, IEEE488, LAN)

Model M525 is a precise capacitance decade box with range from 100 pF to 100 μF. Basic accuracy is 0.25 %. Best resolution on the lowest range is 1 pF. Capacitors are switched using special relays designed for high currents. Comfortable user interface offers direct setting of capacity value, OPEN correction, grounding L terminal, user conversion curves setting and others. Decade can be remotely controlled by a computer using standard RS232 interface. LAN, USB and GPIB interfaces are optional. M525 is equipped with an internal calibration menu that allows correcting any deviation of capacity value without opening the instrument. Decade is designed for checking multimeters and simple RLC meter. It is suitable also for repair, adjustment and calibration of measuring instruments.

M525 Specification

Range / Resolution	Accuracy 1 kHz [%]	Loss coefficient 1kHz [-]	Accuracy 40 Hz-1 kHz [%]	Loss coefficient 10 Hz- 1 kHz [-]	Temperature coefficient [ppm / °C]
0.100 nF – 10.000 nF	0.25 ± 3pF	< 0.05	0.5 ± 3pF	< 0.05	< 270
10.001 nF – 100.00 nF	0.25	< 0.005	0.5	< 0.005	< 270
100.01 nF – 1.0000 uF	0.25	< 0.005	0.5	< 0.005	< 270
1.0001 uF – 10.000 uF	0.25	< 0.05	0.5	< 0.05	< 270
10.001 uF – 100.00 uF	0.25*	< 0.2 *	0.5	< 0.2 **	< 270

Note:

* For frequency 100 Hz

** For frequency range 40 -100 Hz

Capacity value is defined in the output terminals level.

Correction Open OFF – capacity value is defined relative to the OPEN value.

Correction Open ON – capacity value is defined absolutely.

General Specification

Maximal voltage:	50 V pk
Temperature coefficient:	< 270 ppm/ °C
Reaction time:	< 200 ms
Reaction time TIMING:	min 500 ms
Terminals:	gold plated terminals 4mm
Remote control:	RS232 interface (optionally USB, LAN, IEEE488)
Power supply:	85-260 Vac, 45-65 Hz
Reference temperatures:	+23 °C ± 2 °C
Working temperatures:	+5 °C ... +40 °C
Storage temperatures:	-10 °C ... +50 °C
Dimensions:	W 390 mm, H 128 mm, D 310 mm
Weight:	4 kg
Languages:	English, German, French, Spanish, Russian, Czech

Content of delivery

Programmable Decade Box M525
Cable RS 232
Application software
User's manual

Ordering information – options

<i>Bus</i>	M525-V1xxx - RS232 M525-V2xxx - RS232, USB, LAN, GPIB
<i>Housing</i>	M525-Vxx0x - table version M525-Vxx1x - module 19", 3HE

Capacitance

CAPACITANCE		13:59:20	Function
RELATIVE		GND OFF	
10.000 nF			
Output	Open		
1 kHz		40 Hz ... 1 kHz	
Specification	0.25 %	0.50 %	
Loss Coefficient	< 0.005		Menu

Calibration

CALIBRATION		16 / 35	Previous
Use "OPER" button to perform Open correction STAGE1			
Etalon	C16		
Nominal capacitance	2.35 nF		Next
Requested accuracy	1.2 pF		
Last calibrated	11.02.2013		Save
2.367010 nF			Close

Function timing

TIMING		14:00:54	Function
RELATIVE		GND OFF	
TIME 1			
Output	1.0000 µF		
1 kHz		40 Hz ... 1 kHz	
Specification	0.25 %	0.50 %	
Loss Coefficient	< 0.005		Menu