



- 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 Preliminary 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.

Preliminary 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
Hmotnost:	4 kg

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

RELATIVE GND OFF

10.000 nF

Output Open

1 kHz 40 Hz ... 1 kHz

Specification 0.25 % 0.50 %

Loss Coefficient < 0.005

Function

Menu

Calibration

CALIBRATION 16 / 35

Use "OPER" button to perform Open correction STAGE1

Etalon C16

Nominal capacitance 2.35 nF

Requested accuracy 1.2 pF

Last calibrated 11.02.2013

2.367010 nF

Previous

Next

Save

Close

Function timing

TIMING 14:00:54

RELATIVE GND OFF

TIME1

Output 1.0000 μF

1 kHz 40 Hz ... 1 kHz

Specification 0.25 % 0.50 %

Loss Coefficient < 0.005

Function

Menu