

Calibration Certificate No. 18221/V

Manufacturer: Meatest**Model Type Number:** M191**Serial Number:****Customer:****Date of Calibration:** 24.10.2019**Place of Calibration:** Calibration laboratory Meatest, Zelezna 3, CZ-619 00 Brno**Number of Pages:** 3**Page:** 1

The instrument has been calibrated in accordance with the manufacturer's User's manual using standards that are traceable to National or International Standards or have been derived by approved ratio techniques.

The measurement uncertainties stated in this document have been determined according EA-4/02. They were estimated as expanded uncertainty obtained multiplying the standard uncertainty by the coverage factor $k=2$ with confidence level of 95%.

The measurement results relate only to the calibrated items and do not carry any implication regarding long term stability of the instrument.

Seal	Date of Issue	Head of Calibration Laboratory	Person in Charge
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24.10.2019

Range of Calibration: DC Voltage, DC Resistance,
Capacitance, DC Current.

Calibration Conditions: Temperature (23 ± 1) °C

Humidity (33 ± 15) %

Calibration Procedure: Automatic calibration according to the test procedure M191 TR

Applied Standards: V-A measurement using HP 3458A SN:2823A19110, Direct method
using Fluke 8508A SN:860948037, High-voltage divider 1:1000
SN:19006-01, E4980A SN:MY462039, Heinziger PNC 20000-3
SN:295105563, Metrel MI3200 SN:08440173.

The following pages contain the calibration results with column indicating the instrument performance relative to the stated specification.

The column headed "%spe" is the measured error as percentage of the stated specification with no allowance being made for the calibration uncertainty.

Measurement Results:

Function	Range	Standard	UUT	Deviation	%spe	Allowed	Uncertainty	
HVR								
RDC	50 kOhm	9.9978 kOhm	10.000 kOhm	2.21 Ohm	11	20.00 Ohm	0.10 Ohm	ok
RDC	100 kOhm	49.997 kOhm	50.000 kOhm	3.17 Ohm	3	100.00 Ohm	0.61 Ohm	ok
RDC	1 MOhm	0.10000 MOhm	0.10000 MOhm	-0.0016 kOhm	-2	0.1000 kOhm	0.0010 kOhm	ok
RDC	1 MOhm	1.0000 MOhm	1.0000 MOhm	-0.034 kOhm	-3	1.000 kOhm	0.012 kOhm	ok
RDC	10 MOhm	10.006 MOhm	10.000 MOhm	-5.53 kOhm	-55	10.00 kOhm	0.42 kOhm	ok
RHV	500 Mohm	100.10 Mohm; 10kV	100.00 Mohm	-99.9 kohm	-50	200.0 kohm	3.8 kohm	ok
RHV	1 Gohm	0.20015 Gohm; 10kV	0.20000 Gohm	-0.1532 Mohm	-38	0.4000 Mohm	0.0095 Mohm	ok
RHV	1 Gohm	0.40043 Gohm; 10kV	0.40000 Gohm	-0.429 Mohm	-54	0.800 Mohm	0.026 Mohm	ok
RHV	1 Gohm	0.59932 Gohm; 10kV	0.60000 Gohm	0.675 Mohm	56	1.200 Mohm	0.051 Mohm	ok
RHV	1 Gohm	0.80006 Gohm; 10kV	0.80000 Gohm	-0.065 Mohm	-4	1.600 Mohm	0.082 Mohm	ok
RHV	10 Gohm	0.99870 Gohm; 10kV	1.0000 Gohm	1.300 Mohm	26	5.000 Mohm	0.040 Mohm	ok
RHV	10 Gohm	4.9853 Gohm; 10kV	5.0000 Gohm	14.65 Mohm	59	25.00 Mohm	0.43 Mohm	ok
RHV	20 Gohm	9.9652 Gohm; 10kV	10.000 Gohm	34.78 Mohm	35	100.00 Mohm	0.74 Mohm	ok
RHV	100 Gohm	20.023 Gohm; 10kV	20.000 Gohm	-23.1 Mohm	-6	400.0 Mohm	2.4 Mohm	ok
RHV	300 Gohm	100.75 Gohm; 10kV	100.00 Gohm	-748 Mohm	-25	3000 Mohm	67 Mohm	ok
RHV	1 Tohm	0.50060 Tohm; 10kV	0.50000 Tohm	-0.6 Gohm	-2	30.0 Gohm	1.2 Gohm	ok
RHV	1 Tohm	0.70180 Tohm; 10kV	0.70000 Tohm	-1.8 Gohm	-4	42.0 Gohm	2.3 Gohm	ok
RHV	1 Tohm	1.0061 Tohm; 10kV	1.0000 Tohm	-6.1 Gohm	-10	60.0 Gohm	4.6 Gohm	ok
METER								
<VDC	10 kV	105.261 V	104.370 V	-1 V	-8	11 V	0.05 V	ok
<VDC	10 kV	505.017 V	504.750 V	-0 V	-2	13 V	0.25 V	ok
<VDC	10 kV	1005.25 V	1004.96 V	-0 V	-2	15 V	0.5 V	ok
<VDC	10 kV	3006.90 V	3004.86 V	-2 V	-8	25 V	1.5 V	ok
<VDC	10 kV	6009.84 V	6007.70 V	-2 V	-5	40 V	3 V	ok
<VDC	10 kV	9010.14 V	9008.64 V	-2 V	-3	55 V	4.5 V	ok
<VDC	10 kV	10008.8 V	10005.0 V	-4 V	-6	60 V	5 V	ok
<VDC	10 kV	-99.9999 V	-101.428 V	-1 V	-14	11 V	0.05 V	ok
<VDC	10 kV	-500.001 V	-501.422 V	-1 V	-11	13 V	0.25 V	ok
<VDC	10 kV	-999.988 V	-1001.20 V	-1 V	-8	15 V	0.5 V	ok
<VDC	10 kV	-2967.73 V	-2964.98 V	3 V	11	25 V	1.5 V	ok
<VDC	10 kV	-5994.56 V	-5987.12 V	7 V	19	40 V	3 V	ok
<VDC	10 kV	-9957.41 V	-9953.00 V	4 V	7	60 V	5 V	ok
HVC								
C-2W	100 nF	9.5962 nF	9.5965 nF	0.3 pF	0	228.8 pF	5.5 pF	ok
C-2W	100 nF	50.902 nF	50.901 nF	-1 pF	0	353 pF	29 pF	ok
C-2W	100 nF	101.66 nF	101.66 nF	3 pF	1	505 pF	59 pF	ok
SHORT								
IDC	5 mA	1.0112 mA	1.0122 mA	0.9 uA	13	7.0 uA	0.1uA	ok
IDC	5 mA	2.0857 mA	2.0879 mA	2 uA	24	9 uA	0.2uA	ok
IDC	5 mA	3.1286 mA	3.1316 mA	3 uA	26	11 uA	0.3uA	ok
IDC	5 mA	5.1104 mA	5.1102 mA	-0 uA	-1	15 uA	0.5uA	ok
ok ... passed								

Statement of Compliance:

Passed