

# MTS

## Easy to use milliohmmeter 4 terminal test standards with + and - full scale values

The MTS range of milliohmmeter test standards are designed for the simple and easy calibration of low resistance ohmmeters and Kelvin/Thomson bridges. The four terminal resistance values are switch selected and provision is made + and - full scale values. A four terminal zero value may also be selected, thus making zero and full scale calibration of instruments simplicity itself.

Three models are available, the MTS1A which has 11 values from 1 m $\Omega$  to 100k $\Omega$  and the MTS2 has 10 values from 400 $\mu\Omega$  to 400k $\Omega$ , making it ideally suited for the calibration of digital instruments with a long scale length of 4,000 or 6,000 count. The MTS3 is designed for easy calibration for units such as the Cropico DO7010, where a pulsed current is produced. The test standards are housed in a rugged bench portable aluminium case with tilt handle. The internal standards are manufactured from premium quality resistance wire with low temperature and load coefficients. The units are supplied complete with a calibration certificate.

### Key Features

- True 4 terminal standards
- Switch selectable values
- Polarity reversal switch
- Four terminal zero
- Three models available:  
MTS1A: 1m $\Omega$  to 100k $\Omega$   
MTS2: 400 $\mu\Omega$  to 400k $\Omega$   
MTS3: 5m $\Omega$  to 5 $\Omega$
- Supplied complete with calibration certificate

### Ideal For

- Service/calibration departments



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## Technical Specifications

MTS1A				
Resistance Value	Uncertainty of Adjustment at 20°C	Power Max (W)	Current Max (A)	Typical Temperature Coefficient
100kΩ	±0.01%	0.1	1mA	<10ppm/°C
10kΩ	±0.01%	0.1	3mA	<10ppm/°C
1kΩ	±0.01%	0.6	25mA	<10ppm/°C
100Ω	±0.01%	0.6	75mA	<10ppm/°C
19Ω	±0.01%	0.43	150mA	<10ppm/°C
10Ω	±0.01%	0.45	212mA	<10ppm/°C
1.9Ω	±0.01%	0.475	500mA	<10ppm/°C
1Ω	±0.01%	0.56	750mA	<10ppm/°C
100mΩ	±0.01%	0.625	2.5A	<10ppm/°C
10mΩ	±0.05%	0.25	5A	<10ppm/°C
1mΩ	±0.05%	0.1	10A	<10ppm/°C

MTS2				
Resistance Value	Uncertainty of Adjustment at 20°C	Power Max (W)	Current Max (A)	Typical Temperature Coefficient
400kΩ	±0.01%	0.1	0.5mA	<10ppm/°C
40kΩ	±0.01%	0.1	1.5mA	<10ppm/°C
4kΩ	±0.01%	0.1	5mA	<10ppm/°C
400Ω	±0.01%	0.1	15mA	<10ppm/°C
40Ω	±0.01%	0.1	50mA	<10ppm/°C
4Ω	±0.01%	0.1	150mA	<10ppm/°C
400mΩ	±0.01%	0.1	500mA	<10ppm/°C
40mΩ	±0.01%	0.1	1.5A	<10ppm/°C
4mΩ	±0.1%	0.4	10A	<10ppm/°C
400μΩ	±0.1%	0.04	10A	<10ppm/°C

MTS3				
Resistance Value	Uncertainty of Adjustment at 20°C	Current max 2 seconds (A)	Typical Temperature Coefficient	
5Ω	±0.05%	1A	<10ppm	
500mΩ	±0.05%	10A	<10ppm	
50mΩ	±0.05%	10A	<10ppm	
5mΩ	±0.1%	10A	<10ppm	

The MTS3 is not intended to be used for measurements where a continuous current is used

### Terminal

4mm binding posts will accept spade tags and 4mm banana plugs. Low thermal EMF types are used for the potential terminals

### Switches

Combination switch with low thermal contacts for the potential selection and low resistance contacts for the current selection

### Working Temperature

+5 to +40°C

### Storage Temperature

+5 to +50°C

## General Specifications

### Dimensions

215 x 88 x 250mm / 8.5 x 3.5 x 9.8" (w x h x d) approx

### Mass

2.8kg/6lbs approx

### Part Numbers

MTS1A 930240  
 MTS2 930241  
 MTS3 930242

### Services

1 year warranty (subject to product registration with Seaward. Visit [www.seaward.co.uk/register-product](http://www.seaward.co.uk/register-product))

Service and calibration by Calibrationhouse.

Go to [www.calibrationhouse.com](http://www.calibrationhouse.com) for more information.

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