

Address 900 Middlesex Turnpike, Bldg. 8, Billerica, MA 01821, USA
 Telephone +1 781-301-8600
 Fax +1 781-301-8701
 Internet www.mt.com/thornton

CERTIFICATE OF RECALIBRATION

METTLER TOLEDO Thornton Inc., an ISO 9001 certified company, hereby certifies that the item below meets or exceeds all published specifications unless otherwise noted. The calibration procedures comply with ISO10012-2003. The standards used are traceable to the ASTM International standards D1125 and D5391 and to the National Institute of Standards and Technology (NIST).

Customer:	MT - Taiwan
Sensor Part No:	58031404
Sensor Serial No:	5817350160
Certificate No:	58031404 5817350160 2024-02-08 064818

Date Tested:	2024-02-08
Test Procedure:	58299897
Technician:	NA <i>MA</i>

As Found	Slope/Multiplier	Offset/Adder
Cell Constant	0.1008	0.0000
Temperature Constant	1.0000	0.2409

	Unit Under Test	UPW Standard	Deviation	Limits ±	Result
Compensated Resistivity (MΩ-cm)	17.838	18.135	-1.878 %	1.000 %	FAIL
Temperature (°C)	24.972	25.077	-0.105	0.100	FAIL
Uncompensated Resistivity (MΩ-cm)**	17.865				

After Calibration	Slope/Multiplier	Limit	Offset/Adder	Limit	Result
Cell Constant*	0.09949	0.100±5.0 %	0.00000	0.000±0.000	PASS
Temperature Constant	1.00000	1.000±1.000 %	0.68043	0.000±2.000	PASS

	Unit Under Test	UPW Standard	Deviation	Limits ±	Result
Compensated Resistivity (MΩ-cm) †	18.180	18.180	0.245 %	1.000 %	PASS
Temperature (°C)	25.071	25.073	-0.002	0.100	PASS
Uncompensated Resistivity (MΩ-cm)**	18.112	Result: Sensor meets specifications			

Reference Equipment	Make	Model	Serial #	Calibration Due Date
Conductivity Sensor	Thornton	230-211	04090647	2024-06-16
Transmitter	Thornton	775-VD0	706110101	2024-04-25

	Uncompensated Resistivity (MΩ-cm)	Compensated Resistivity (MΩ-cm)	Temperature (°C)
UPW Verification††	18.066	18.135	25.073

* All sensor cell constants are calibrated to Ultrapure Water at a compensated resistivity of 18.18 MΩ-cm.

† Published accuracy: ±1% of reading

** Uncompensated value is for reference only.

†† Verification compensated resistivity is used to verify UPW at 18.18 MΩ-cm.

Conductivity cell constant and temperature constant calibrations are valid for one year from date of installation. Annual calibration is recommended thereafter. However, rough handling or use in samples containing suspended solids or aggressive fluids can degrade cell constant accuracy and require more frequent calibration.

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Customer:	MT - Taiwan
Part Number:	58031404
Serial Number:	5817350160
PCB Firmware Rev.:	1.30
Date Tested:	2024-02-07
Calibration Procedure:	95345
Temperature:	22.5
Relative Humidity:	16.9
Certificate Number:	58031404 5817350160 2024-02-08 064818

As Found

Standard (ohms)	Unit Under Test (ohms)	Deviation %	Limit (±%)	Result
100.07	100.13	0.05	0.50	PASS
500.15	500.29	0.03	0.50	PASS
1000.26	1000.25	0.00	0.30	PASS
50038.38	50039.71	0.00	0.30	PASS
199968.50	199979.85	0.01	0.30	PASS
499653.51	499616.16	-0.01	0.30	PASS
1817994.77	1818096.95	0.01	0.30	PASS

Standard (ohms)	Unit Under Test (ohms)	Deviation %	Limit (±%)	Result
1097.17	1097.18	0.00	0.08	PASS
1300.25	1300.23	0.00	0.08	PASS

After Calibration

Standard (ohms)	Unit Under Test (ohms)	Deviation %	Limit (±%)	Result
100.07	100.12	0.05	0.50	PASS
500.15	500.29	0.03	0.50	PASS
1000.26	1000.28	0.00	0.30	PASS
50038.38	50038.65	0.00	0.30	PASS
199968.50	199986.15	0.01	0.30	PASS
499653.51	499686.64	0.01	0.30	PASS
1817994.77	1817875.40	-0.01	0.30	PASS

Standard (ohms)	Unit Under Test (ohms)	Deviation %	Limit (±%)	Result
1097.17	1097.18	0.00	0.08	PASS
1300.25	1300.23	0.00	0.08	PASS

Reference Equipment

Standard	Make	Model	Serial #	Cal Due Date	Accuracy
PCB Test Fixture	CCI	FUNC-26098	2609801	2024-05-11	±0.01 %

Calibration of conductivity sensor electronics (page 2) is performed before calibration of the cell constant and temperature (page 1). Complete sensor limits of error are ±1.0% for cell constant and ±0.10 °C for temperature.