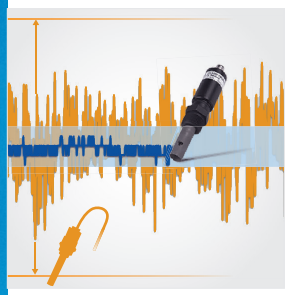
UniCond

THORNTON
Leading Pure Water Analytics

Reduce Equipment Inventory

With Wide Range Conductivity Sensors



Highly Stable Digital Signal

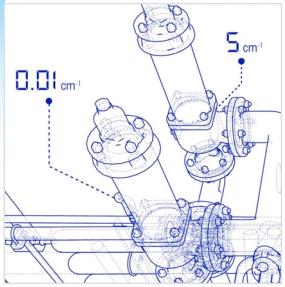
Intelligent Sensor Management (ISM™) technology converts the conductivity measurement into a highly stable, robust digital signal which is sent to the transmitter, enabling the sensor to quickly respond to minor changes in conductivity.

Fast and Easy Installation

ISM's Plug and Measure feature makes sensor installation fast and easy, since all relevant status and configuration information is stored in the sensor and automatically transferred from the sensor to the transmitter during startup.

Easy Traceability

Identification, calibration and maintenance data is stored in the UniCond sensor, which allows for clear traceability. The sensor meets strict NIST-traceable calibration requirements.



Wide Range for Streamlined System Design

Measure makeup, RO, DI and wastewater with a single wide range conductivity sensor. Streamline equipment inventory and system design complexity by reducing the number of fitting types, housings and insertion lengths required.

UniCond Sensors

Superior Measurement Accuracy

The UniCond™ conductivity sensor provides an exceptionally wide measurement range due to its advanced built-in circuit. The sensor can be used to measure everything from ultrapure water to brackish water (up to 50,000 µS/cm).

The digital UniCond sensor reduces equipment inventory by enabling the measurement of an extensive water purity range with a single sensor model. The advanced measuring techniques of the UniCond conductivity sensor contribute to superior accuracy over an extended range. UniCond exceeds performance of conventional sensors due to built-in measuring circuits and analog-to-digital signal conversion in the sensor head.

To achieve superior conductivity measurement accuracy, visit:
www.mt.com/UniCond

METTLER TOLEDO

UniCond Technical Data

UniCond Sensor

Accuracy	0.01 cm–1 sensor: ± 1 % 0.1 cm–1 sensors: ± 1 % for 0.01 – 5,000 µS/cm; ± 3 % > 5,000 µS/cm 4-E sensors: ± 4 %
Repeatability	± 0.25 %; ± 2 % for 4-E sensors
Temperature sensor	Pt1000 RTD, IEC 60751, Class A, with NIST-traceable calibration
Temperature accuracy	± 0.1 °C at 25 °C; ± 0.5 °C for 4-E sensors
Maximum cable length	91 m (300 ft)
Finish (sanitary 0.1 cm^{-1} sensors)	Ra 0.38 micrometers (15 microinches), 316 L SS is electropolished
Insulator material	PEEK except for the CPVC sensors
Response time	90 % of value in < 5 s
Connector	IP 65, mates with 5808027X series cable

Ordering Information

Description							Order Number
Fitting	**Insertion Length "X" mm (inch)**	**Fitting/Body material**	**Range (µS/cm)***	**Cell Const. (cm^{-1})**	**Electrode Material**	**Max Pressure at Temp bar(g) (psig) at °C (°F)**	
¾" NPTM	34 (1.35)	PTFE/SS	0.01 – 50,000	0.1	Titanium	17 (250) at 93 (200)	58031404
¾" NPTM	132 (5.19)	PTFE/SS	0.01 – 50,000	0.1	Titanium	17 (250) at 93 (200)	58031409
¾" NPTM	34 (1.35)	PTFE/SS	0.01 – 50,000	0.1	Monel™	17 (250) at 93 (200)	58031407
¾" NPTM	132 (5.19)	PTFE/SS	0.01 – 50,000	0.1	Monel	17 (250) at 93 (200)	58031408
½" NPTM	29 (1.14)	PTFE/SS	0.01 – 50,000	0.1	Titanium	17 (250) at 93 (200)	58031406
¾" NPT	60 (2.38)	PTFE/SS	0.001 – 500	0.01	Titanium	17 (250) at 93 (200)	58031410
1½" Tri-Clamp™	86 (3.38)	Titanium	0.01 – 50,000	0.1	Titanium		58031413†
1½" Tri-Clamp	55 (2.17)	316L SS	0.01 – 3,000	0.1	316L SS	14 (203) at 130 (266)	58031412†
1½" Tri-Clamp	86 (3.38)	316L SS	0.01 – 3,000	0.1	316L SS	& 31 (450) at 25 (77)	58031414†
2" Tri-Clamp	105 (4.13)	316L SS	0.01 – 3,000	0.1	316L SS		58031415†
1" NPTM	28 (1.1)	PEEK	10 – 1,000,000	4-E	Hastelloy™	7 (100) at 93 (200) 14 (200) at 25 (77)	58031421
1" NPTM	28 (1.1)	CPVC	10 – 1,000,000	4-E	316L SS	3.5 (50) at 80 (176)	58031422
1" NPTM	28 (1.1)	CPVC	10 – 1,000,000	4-E	Hastelloy	7 (100) at 25 (77)	58031423
1½" Tri-Clamp	25 (1.0)	PEEK	10 – 1,000,000	4-E	316L SS		58031424†
2" Tri-Clamp	25 (1.0)	PEEK	10 – 1,000,000	4-E	316L SS	4.8 (70) at 140 (284)	58031425†
1½" Tri-Clamp	25 (1.0)	PEEK	10 – 1,000,000	4-E	Hastelloy	14 (200) at 50 (122)	58031426†

* Megohm-cm = 1/µS/cm

† FDA compliant materials with certification to meet EN10204 3.1 & USP <88> Class VI

www.mt.com/pro

For more information

METTLER TOLEDO Group
Process Analytics Division
Local contact: www.mt.com/pro-MOs

PA2074en Rev B 06/21

Quality certificate.
Development, production and testing to ISO 9001.

CE Compliant

UL listed
Meets Canadian Standards