

# Optical Dissolved Oxygen



**THORNTON**  
Leading Pure Water Analytics

**Pure Water Optical DO Sensor**  
Enhanced Stability and Reliability  
High Accuracy



**ISM®**

## Highly Accurate DO Measurement

Fast Response, Reduced Maintenance

**METTLER TOLEDO**

# Pure Water Optical DO Sensor

## Fast Response, Reduced Maintenance

**The Pure Water Optical Dissolved Oxygen Sensor with Intelligent Sensor Management (ISM®) technology provides high accuracy, fast response, and increased stability in demanding low ppb-level applications.**

Outstanding measurement performance with low detection limit, minimum drift, and short response time significantly improves oxygen monitoring. METTLER TOLEDO's proprietary OptoCap™ sensing element provides very accurate oxygen determination and easy maintenance without electrolyte handling. Additionally, the OptoCap eliminates the need for polarization, making the measuring system readily available and reducing downtime.

Intelligent Sensor Management (ISM) simplifies sensor handling and provides diagnostic tools for predicting sensor maintenance before measurements are affected.

### Features Overview

- Very high accuracy
- Fast response
- Enhanced stability and reliability
- Reduced maintenance and downtime
- No dissolved hydrogen interference
- No flow sensitivity

### Typical Applications

- Power plant cycle chemistry monitoring
- Generator stator cooling
- Semiconductor ultrapure water
- Pure water treatment systems

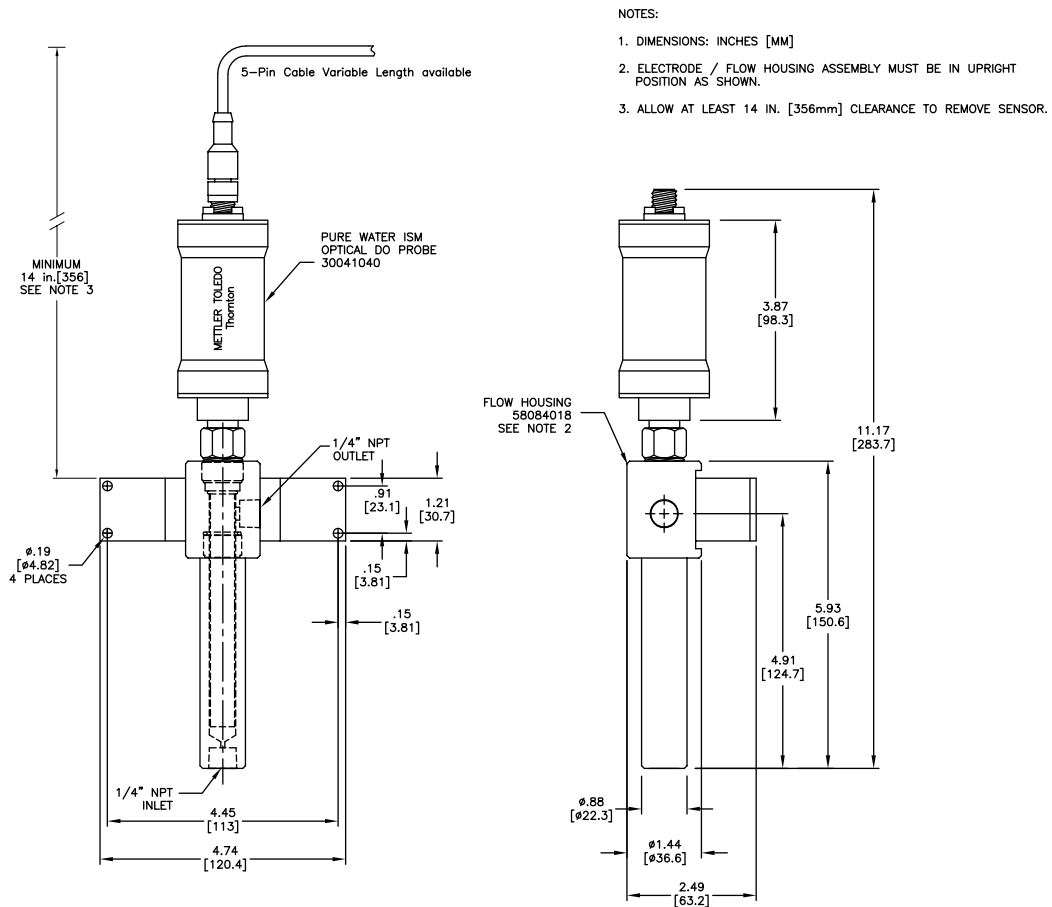


ISM®

## Specifications

Operating range	0 – 5000 ppb
System accuracy	± 1% of reading or 2 ppb, whichever is greater
Response time at 25 °C (77 °F) (Air _ N2)	98% of final value in < 20 s
Sampling rate	Adjustable between 1 and 60 seconds; Set to 10 seconds
Sample flow rate	50 – 800 ml / min
Temperature compensation	Automatic
Measuring temperature range	10 – 50 °C (50 – 122 °F)
Environmental temperature range	0 – 121 °C (32 – 250 °F)
Operating pressure	0.2 – 12 bar (2.9 – 174 psi absolute)
Mechanical pressure resistance	Maximum 12 bar (174 psi absolute)
Sample connections	¼" NPT
Wetted materials	Stainless steel, silicone, EPDM O-Ring
Cable length Probe to M800	1 – 10 m (3 – 33 ft)
Components needed	Optical DO probe, housing and cable
Sensor diameter	12 mm

## Dimensions of Pure Water Optical DO Sensor



# Optical DO Sensor with ISM

## Ordering Information

For new installations you need to order the sensor, the housing and a cable based on the length required by the customer.

<b>Sensor Used with Thornton M800 Transmitter *</b>	<b>Order No.</b>
Pure Water ISM Optical DO Sensor	<b>30 041 040</b>

### Required Accessories

Pure Water Stainless Steel Housing	<b>58 084 018</b>
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### Sensor Cable

2 m (6.6 ft)	<b>52 300 379</b>
5 m (16.4 ft)	<b>52 300 380</b>
10 m (32.8 ft)	<b>52 300 381</b>
15 m (49.2 ft)	<b>52 206 422</b>
25 m (82.0 ft)	<b>52 206 529</b>
50 m (164.0 ft)	<b>52 206 530</b>

### Spare Parts

OptoCap Replacement Kit	<b>52 206 403</b>
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\* Power consumption is high; allowing only one ODO sensor on a 2-channel M800 or two ODO sensors on a 4-channel M800. The other channels can be used for other parameters such as pH or conductivity.

► [www.mt.com/opticalDO](http://www.mt.com/opticalDO)

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Visit for more information

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