

# Model OUS41 Turbidity/ Suspended Solids Sensor



## Optical sensor for turbidity and suspended solids content measurement for installation in open pipes and vessels



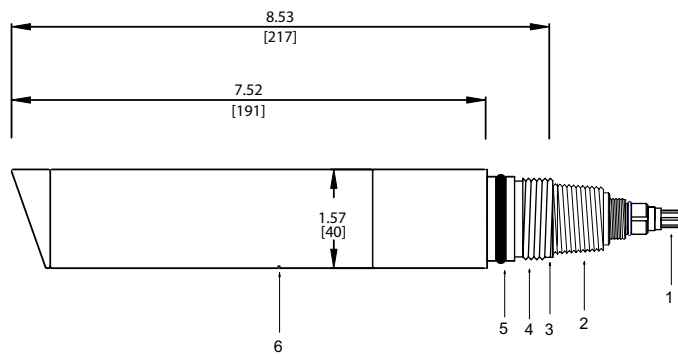
- Measuring range from 0.01 to 9999 FNU/NTU, 0.0 to 300 g/l, 0.0 to 9999 ppm
- Scratch-proof sapphire windows
- Compact, shock-proof design
- Sensors are factory calibrated with formazine standard and silicon dioxide (SiO<sub>2</sub>)
- “Plug and play” operation minimizes start-up time
- 3-Point calibration and 1-point adjustment
- Store up to 7 different calibration data records
- Nephelometric 90° scattered light method with 880 nm NIR measuring frequency according to ISO 7027 / EN 27027
- Optional integrated wiper for mechanical cleaning
- Inclined sensor surface inclined design uses flow stream for self-cleaning / bubble rejection
- Operates with Model 870/872 turbidity analyzer as part of a complete measurement loop
- “Smart” sensor includes a built-in microprocessor
- Remote set-up capability makes it portable between different analyzers
- For use in a variety of applications such as monitoring plant effluent streams

OUS41 shown  
with optional  
window wiper  
system



Measuring principle	Nephelometric 90° NIR scattered light
Measuring ranges	Measuring range from 0.01 to 9999 FNU/NTU, 0.0 to 300 g/l, 0.0 to 9999 ppm (depending on sample type)
Wavelength	880 nm
Optical reference compensation	By reference photodiodes
Factory calibration	Formazine standard and SiO <sub>2</sub>
Temperature / pressure	6 bar (88 psig) at 25 °C ( 77 °F ) 1 bar (14 psig) at 50 °C ( 122 °F )
Max. cable length	200 m
Temperature sensor	NTC Thermistor
Nominal operating range	-5 to 50 °C (23 - 122 °F )
Storage temperature range	-20 to 60 °C (-4 to 140 °F)
Ingress protection	IP 68
Sensor body	POM (Polyoxymethylene)
Optical windows	Sapphire

**Specifications**



1. NEMA 6 waterproof connector
2. NPT 3/4" process mounting threads
3. Orientation markings
4. G 1" process mounting threads
5. O-ring Seal
6. POM Body

**Dimensions Diagram**

<b>OUS41</b>	
	<b>Sensor Options</b>
<b>A</b>	No wiper
<b>W</b>	With wiper
	<b>Cable Length</b>
<b>2</b>	7 meters
<b>4</b>	15 meters

**Order Code**

Part No.	Accessories
<b>Replacement Kit</b>	
50089252	Wiper, 3 pc.
<b>Installation Housings</b>	
*OYA611	Immersion
OUA451	Retractable
OUA120, OUA250	Flow-through
* Not effective near wall - must use fixed pipe on wall with holder (OYY105)	

**Accessories**

Wedgewood Analytical, Inc.  
4123 East La Palma Avenue, Suite 200  
Anaheim, CA 92807  
Toll Free: 1-800-835-5474  
Direct: 1-714-577-5600  
Fax: 1-714-577-5688  
www.WedgewoodAnalytical.com