

Laser Diagnostic Instruments

LDI ROW

# REMOTE OPTICAL WATCHER

The ROW is an autonomous non-contact sensor for the detection of oil on water. It monitors industrial sites for oil spills and leaks so you can respond quickly. Protect drinking water sources and safe-guards heavy industrial equipment from lubricant or leaks; protect the environment.

## › 24/7 OPERATION EVEN IN HARSH ENVIRONMENTS

Day or night, in arctic cold or scorching heat, the ROW helps you pinpoint the polluters, take action, and avoid lasting damage. The sensor is available in aluminum, stainless steel or ATEX EXD enclosures.

France,  
Sewer Monitoring

Poland, Power Plant

\* Different oils from each country have different properties. Check with LDI or send samples for testing.

## ROW DETECTS\*:

motor oils, turbine oils, vegetable oils, fuel oils,  
marine diesel oils, crude oils, heating oils,  
lube oils, hydraulic oils,  
gas oils, motor oils,  
mineral oils

## › LONG LIFE, GO OFF-GRID

Robust IP68 certified hermetic design and 5 year LED lifetime. Low power consumption of < 2W with optional remote operation using solar panels, batteries and wireless telemetry.

## › NON-CONTACT DETECTION INSTRUMENT

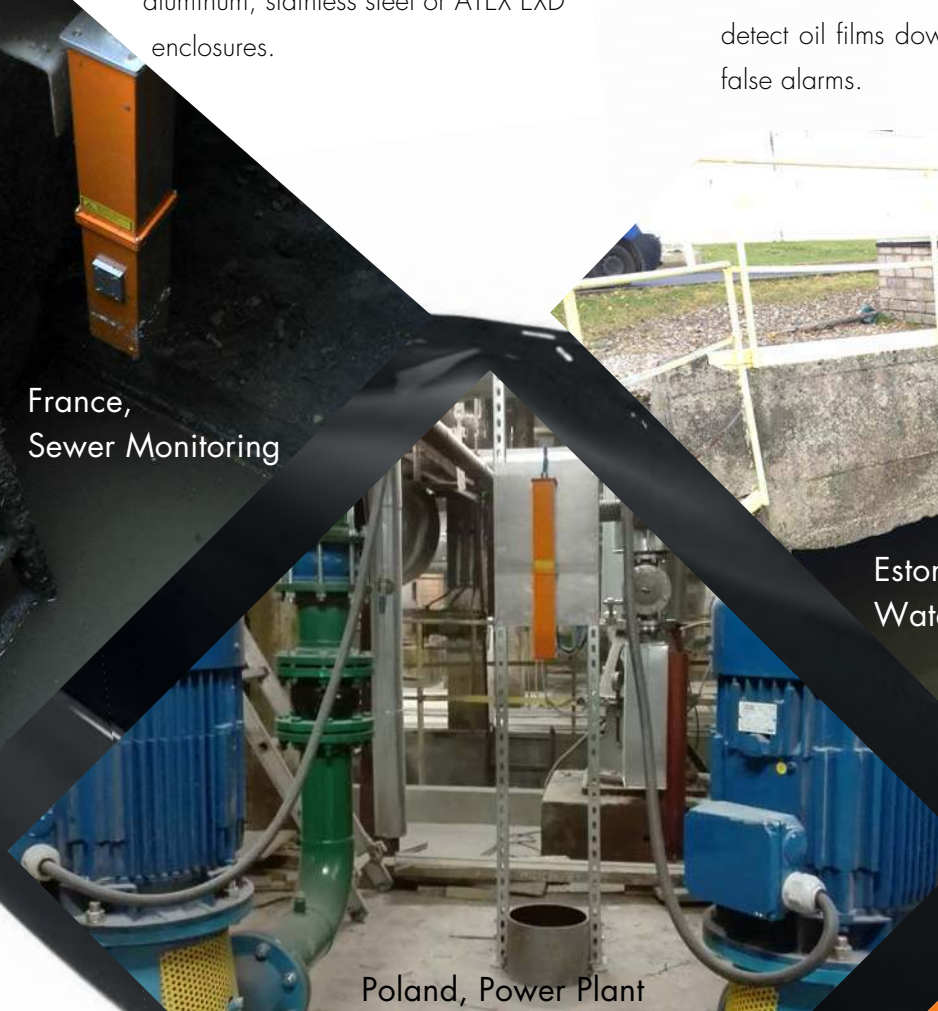
This means easier installation, no bio-fouling, and no maintenance.

## › INDUSTRIAL LEADING SENSITIVITY

With almost 30 years of experience in R&D, LDI has created the ROW that uses UV LED light to excite oil's native fluorescence. The ROW's photo-optics can detect oil films down to 1  $\mu\text{m}$  layer, while minimizing false alarms.

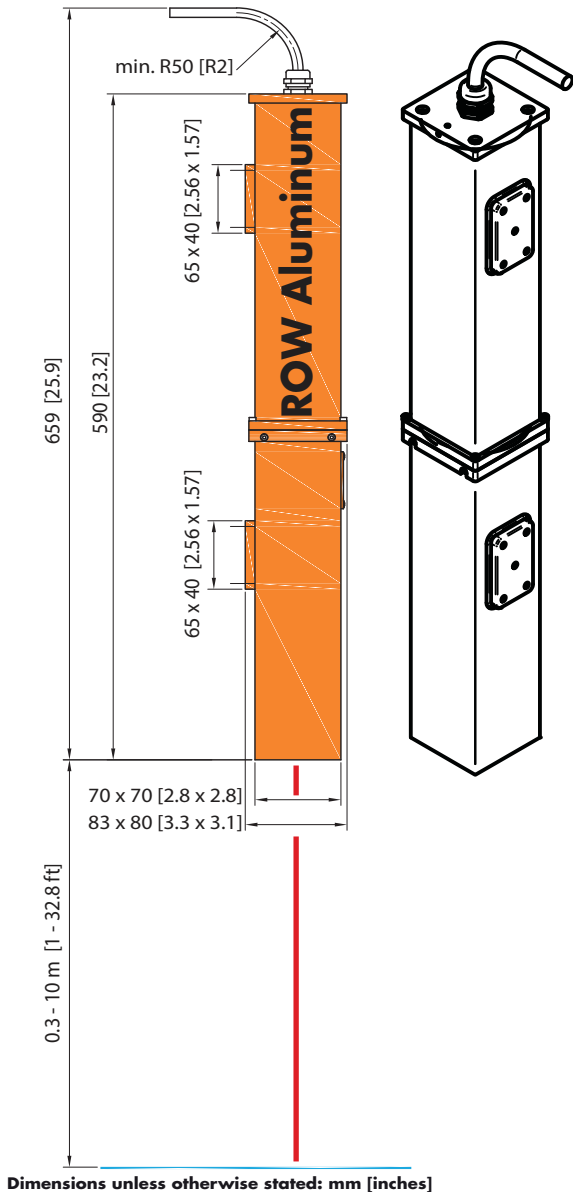
Estonia,  
Water Treatment Plant

South Korea,  
Municipal River  
Monitoring



Optical non-contact and autonomous sensor for real-time detection of oil contamination - UV fluorescence technology

## TECHNICAL SPECIFICATIONS



<b>MODEL</b>	O-2311A ( <b>Aluminum</b> )	
<b>SENSITIVITY</b>	> 1 µm (micron) oil film	
<b>OIL DETECTION*</b>	Medium (diesel, lubricants etc..) & heavy (crude, bunker fuels etc..) oils	
<b>RANGE</b>	up to 10 m [33 ft] from surface	
<b>OPERATION TEMPERATURE</b>	-30°C to +60°C [-22°F to 140°F]	
<b>ENCLOSURES</b>	IP68, hermetically sealed, weather proof Anodised Aluminum, powder coating, purged (Ar)	
<b>DIMENSIONS (L x W x H)</b>	590 x 83 x 80 mm [23.2 x 3.3 x 3.1 in] device dimensions Comes with mounting plates for installation	
<b>WEIGHT</b>	1.8 kg [3.97 lbs]	
<b>POWER OPTIONS (Input)</b>	12 – 24 VDC (10V - 30V) as standard Optional: 110/220 VAC, 60/50 Hz AC/DC adapter, solar/battery options	
<b>POWER USAGE</b>	< 2 Watt (DC)	
<b>LIGHT SOURCE</b>	Pulsed UV LED	
<b>LED LIFETIME</b>	5 years typical, thereafter, LED replacement	
<b>OUTPUTS</b>	[Relay contacts, RS-485 (modbus), 4-20 mA] as standard	
<b>TELEMETRY OPTIONS</b>	RS-232 Ethernet/LAN Audio alarm Wireless Radio Link Wi-Fi GSM	Custom Solutions: Optional adapters available, contact Sales Engineer for additional information
<b>USER INTERFACE</b>	ROW Configurator software for setup & adjustment ROW Manager software for network visualization	
<b>CERTIFICATIONS</b>	EN 61000-6-2, 61000-6-3, 61326-1, 61000-4-2, 61000-4-5, 61000-4-6, 61000-4-8, 61010-1 <b>US EPA:</b> EPA/530/UST-90/009 <b>IP68:</b> EN 60529	
<b>WARRANTY</b>	2-years factory warranty as standard, supported worldwide	

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