SEMRAD
PROCESS CONTROL & MONITORING

ROWATEX EXD
OIL DETECTOR FOR HAZARDOUS AREAS

The ROW ATEX EXD oil detector is designed to be installed within hazardous areas where ignitable concentrations of flammable gases, vapors or mists often exist. These industrial areas are classifed as Zone 1 based on established international standards ATEX/IECEx.

›EXPLOSIVE-PROO F (Ex d) ENCLOSURE

The ROW ATEX EXD oil detector is encased in a flameproof (explosion-proof) enclosure made from 316 stainless steel, making it ideal for the toughest environments. The whole system is certified ATEX/IECEx by DNV for Zone 1 installations.

›TOP CERTIFIED Ex d DEVICE

ROW is fully certified by DNV for ATEX & IECEx equipment manufacturing.

›SPECIFICATIONS: BEST IN CLASS

Non-contact instrument with robust IP68 protection, low-power (< 2 W) UV fluorescence technology, up to 8 m range - these are the best specs on the market.

›INDUSTRY LEADING SENSITIVITY - 1µm

Advanced software algorithms are calibrated to detect oil films down to a single micron layer and minimize false alarms.

›COMPATIBLE WITH EXISTING DEVICES

The ROW ATEX EXD can be installed within a network of ROWs but also connect seamlessly with 3rd party telemetry options using RS485 (modbus), 4-20 mA PLC/SCADA, or simple I/O alarm relay.

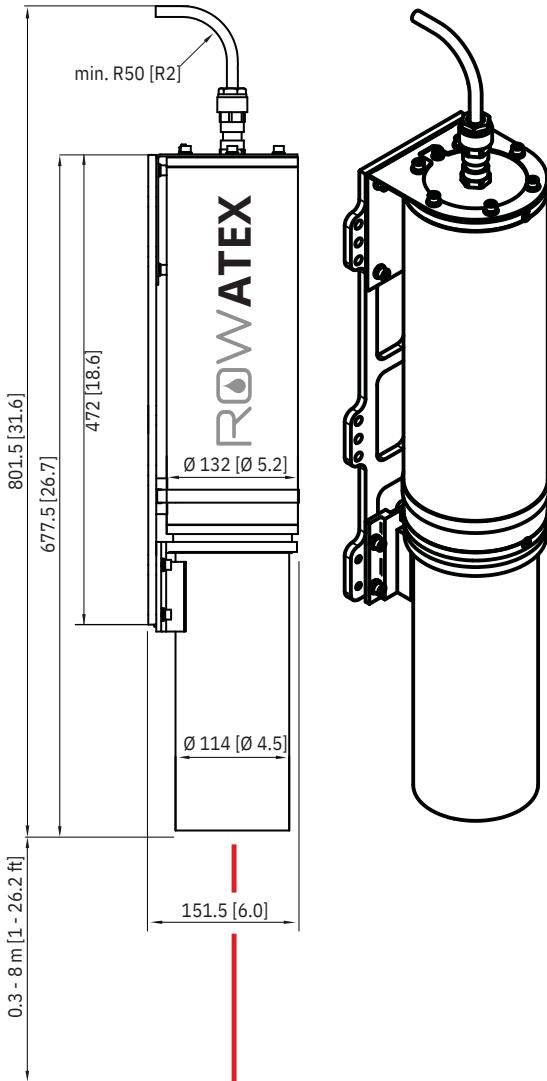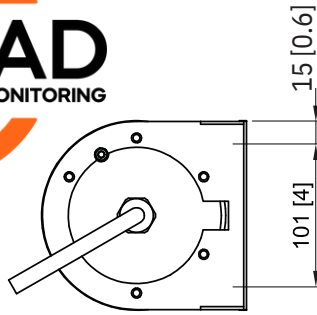**Italy, Oil Terminal**

Norway, Fuel Depot

Belgium, Oil Refinery

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ROW

Optical non-contact and autonomous sensor for real-time detection of oil contamination - Zone 1 installations

TECHNICAL SPECIFICATIONS

min. R50 [R2]

801.5 [31.6]
677.5 [26.7]
472 [18.6]
Ø 132 [Ø 5.2]
Ø 114 [Ø 4.5]
151.5 [6.0]
0.3 - 8 m [1 - 26.2 ft]

Dimensions unless otherwise stated: mm [inches]

220 [8.66]
20 [0.8]
20 [0.8]
150 [5.9]
20 [0.8]
20 [0.8]
170 [6.7]
Ø 8.5 [0.33]
472 [18.6]

MODELS	O-2301E **(ATEX EXD)** O-4501E **(Light Fraction)**
SENSITIVITY	> 1 µm (micron) oil film
OIL DETECTION*	O-2301E **(ATEX EXD)** – Medium (diesel, lubricants etc..) & heavy (crude, bunker fuels etc..) oils O-4501E **(Light Fraction)** – Light (kerosene, jet fuel etc..), including medium, & heavy oils
RANGE	up to 8 m [26 ft] from surface; **Light Fraction** only 5 m [16 ft]
OPERATION TEMPERATURE	-30ºC to +60ºC [-22ºF to 140ºF]
ENCLOSURE	IP68, hermetically sealed, weather proof Stainless steel 316, Explosion-Proof Enclosure, ATEX/IECEx Zone 1 II 2 G Ex d IIC T6 Gb, Class 1, Division 1, Groups CD
DIMENSIONS (L x W x H)	677.5 x 132 x 132 mm [26.7 x 5.2 x 5.2 in] device dimensions Comes with external metal bracket for mounting
WEIGHT	12.2 kg [26.9 lbs]
POWER OPTIONS (input)	O-2301E **(ATEX EXD)**: 12 – 24 VDC (10V - 30V) O-4501E **(Light Fraction)**: 12 VDC only Optional: 110/220 VAC (60/50 Hz) AC/DC adapter, 24 to 12 VDC adapter, solar/battery options
POWER USAGE	< 2 Watt (DC)
LIGHT SOURCE	Pulsed UV LED
LED LIFETIME	5 years typical, thereafter, LED replacement
OUTPUTS	[Relay contacts, RS-485 (modbus), 4-20 mA] as standard
TELEMETRY OPTIONS	RS-232 Ethernet/LAN Audio alarm Wireless Radio Link Wi-Fi GSM Custom Solutions: Optional adapters available, contact Sales Engineer for additional information
USER INTERFACE	ROW Configurator software for setup & adjustment ROW Manager software for network visualization
CERTIFICATIONS	EN 61000-6-2, 61000-6-3, 61326-1, 61000-4-2, 61000-4-5, 61000-4-6, 61000-4-8, 61010-1 **US EPA:** EPA/530/UST-90/009 **IP68:** EN 60529 **ROW ATEX EXD:** EN/IEC: 60079-0, 60079-1 ATEX (Zone 1) II 2 G [DNV 20 ATEX 61463X] IECEx Ex d IIC T6 Gb [IECEx PRE 20.0044X]
WARRANTY	2-years factory warranty as standard, supported worldwide