

EOS 485EX Series Sensors

The Cambria EOS 485EX is a UL Class 1 Division 1 rated discriminating hydrocarbon detection sensor. It is a unique, high performance optical sensor that will detect the presence of hydrocarbons and water, and can be calibrated to other liquids. The sensor is extremely robust and has a very high signal to noise ratio. It is immune to sunlight, artificial lighting, vibration or RF noise. The EOS 485EX uses Cambria's patented evanescent wave technology. The sensor discrimination function refers to the ability to detect and identify water, alcohol, gasoline, diesel, engine oils, etc. With no moving parts, this rugged sensor line features a slim profile that allows the unit to be easily installed in a wide variety of tight environments. The EOS 485EX consists of a sensing head and electronics in an EX housing and is UL Class 1 Div 1 approved. The sensing head is located remotely from the electronics via an armored fiber optic cable. No electrical or measurable thermal energy passes out of the housing to the sensor head.

The EOS technology has a highly flexible form factor, and has allowed for special designs for High pressure-High temperature (450°F @3000psi), very small shapes (0.25" diameter), and the sensor head can be made completely non-metallic.

Applications

- Pipeline operations at valves, pumps, transfer points etc.
- Leak detection
- Level detection
- Secondary containment
- Interwall environments
- Hydrocarbon Monitoring
- Fuel-Water Discrimination

Benefits

- Single channel discriminating sensor
- Field tested, 3rd Party Approved
- UL Class 1 Div 1 Approved
- Easy to use/install
- Narrow profile
- Fast reaction time (0.05 sec)
- Variety of form factors
- Accessories available (ex. Floats, brackets)

Requirements

- No barriers required, easy to use
- 24 volts DC fused at 0.1amps



Preliminary Specifications

Type:	Discriminating, single point, Fuel and Water detection
Technology:	Patented Evanescent technology
Operable sensor temp range:	(-40)°C to 60°C standard. High temp to 225°C
Cable Temperature:	(-40)°C to 85°C
Power:	24vdc +/- 4vdc. Current draw 25ma.
Sensor output:	RS485 communications plus individual form C relays for fuel and water
Sensor diagnostics output:	0-3.6V
Guaranteed service lifetime:	1 Million cycles, 3 year warranty
Repeatability:	Better than 1%
Hysteresis:	< 0.1%
Dimensions (sensor head):	2" long, 0.5" diameter standard
Cable to EX housing:	2 m armored cable standard. Custom lengths available to 7 m
Response Time:	10 ms intrinsic, plus relay pull-in time.
Weight:	5 lb (depending on final configuration)
Case:	Steel, stainless steel, aluminum.
Approvals:	California Water Board, 3rd party test, UL Class1 Div 1

