

EASZ-1

Online Water in oil Monitor



FEATURES

- ✓ Response time 1 second
- ✓ Measurement of total water in any form whether dissolved, free or emulsified
- ✓ Loop powered 2 wire
- ✓ Temperature compensation
- ✓ Monitors Fluid condition of operating equipment or oil product contamination level
- ✓ Flexible ranges

APPLICATIONS

- Dynamic Response and Quality in
- Hydraulic Oil
- Lubrication Oil
- Vegetable Oil
- Crude Oil
- Diesel Fuel
- Fuel /Hydrocarbons
- Transmission Fluid

INDUSTRIES

- Marine
- Power Plants
- Refineries
- Petrochemical
- Oil and Gas
- Pulp and Paper
- Steel Mills
- Mining
- Oil Purification
- Aviation

OVERVIEW

Water contamination in oil based fluids can cause numerous problems such as loss of revenue, additive depletion, oil oxidation, corrosion, reduced lubricating film thickness, accelerated component wear rates, microbiological growth, reduction of dielectric strength and loss of power as an example. These problems can be prevented by online monitoring, so that problems can be averted in time.

EASZ-1- A DEVICE FOR CONTINUOUS MEASUREMENT OF WATER IN OIL



Continuous and accurate monitoring of water in oil contamination including lubrication oils, fuels and hydraulic oils, diesel and any oil based chemical. The EASZ-1 is a unique water in oil monitoring system which provides online water reporting for all types of Engine fuel or Lubrication, Pipelines, Turbines, Thrusters, Azipods, Gears, Separators, Vacuum Oil Dehydrators, Basket Type Oil Centrifuges, High Speed Purifiers and various Filtration Systems and Stabilizers with a means of continuous monitoring of the oil systems for possible water in oil contamination.

The EASZ-1 temperature compensated microprocessor based loop powered water in oil sensor enables fast and reliable drift free online detection and monitoring of moisture percentage or ppm water in oil.

The EASZ-1 can be used to check oil or fuel product quality or as an on-line moisture monitoring and control instrument allowing separators and oil purifiers to be started only when needed or as a diagnostic or preventative device protecting critical systems from premature failure. The EASZ-1 water in oil unit responds very quickly to a change dielectric of the oil being monitored and is not affected or knocked out of service by saturation or limited by the saturation point of the liquid since it will continue to work in both high and low measurement ranges.

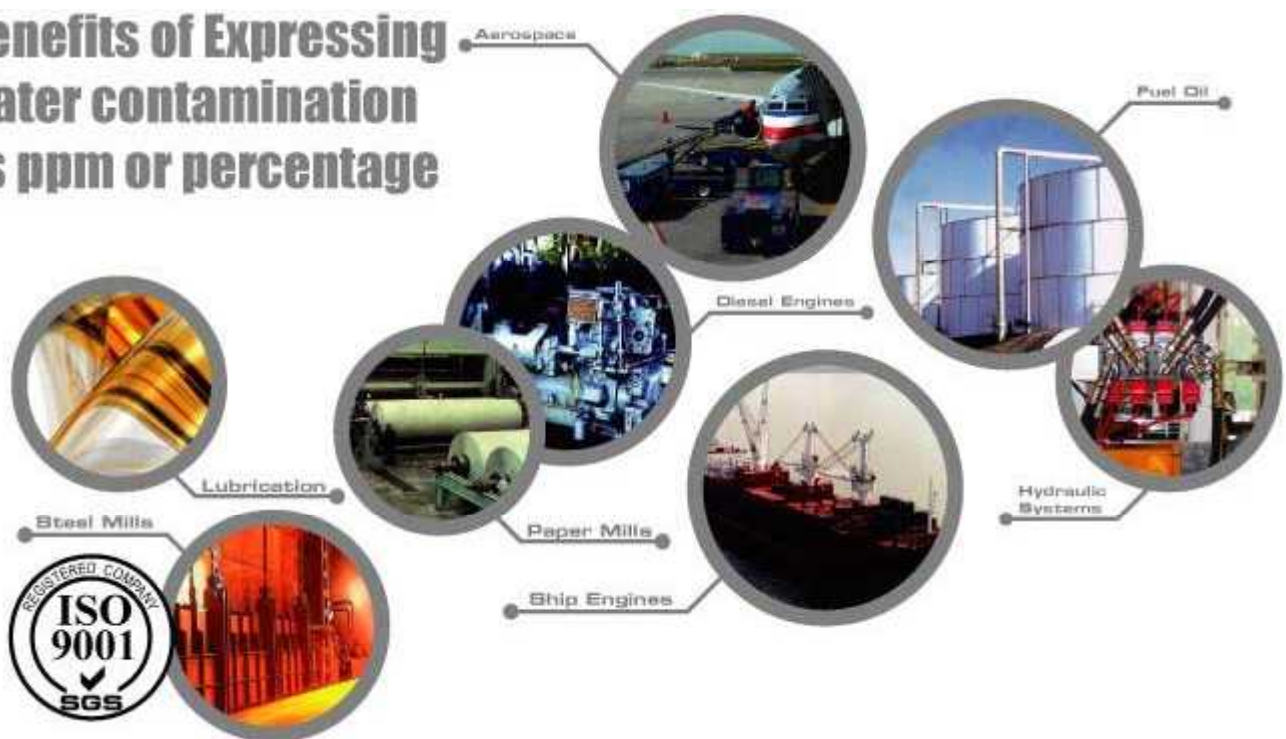


Water in oil can cause quick and costly breakdowns. The breakdowns can happen so fast that in many cases, water in oil can be treated as a more serious contamination problem than metal particle contamination! Water in oil contamination can occur at any time. It is possible that serious damage can be caused on bearings and other lubricated components without the user knowing it is happening. The online EASZ-1 water in oil analyzer can give early warning of a problem so that corrective action can be taken.

Measuring water.

The industry standard practice has been to report water content as a percentage of the total volume or in parts per million (ppm) The EASZ-1 can directly measure the ppm or percentage water in oil in a process. This has enormous advantages for clients wishing to correlate actual moisture readings with laboratory results. The fact is, the EASZ-1 is more reliable than spot sampling or laboratory results, simply because it is monitoring the total volume of oil 24 hours a day. The advantages of the EASZ-1 is that it can be calibrated to any type of oil and work reliably without the need for replacement due to sensor element wear. The problem of drifting has been eliminated by the use of modern technology digital circuits.

Benefits of Expressing water contamination as ppm or percentage



The EASZ-1 is normally a quick ship item and can be retrofitted into existing oil systems either as a bypass instrument or in full bore inline versions. Contact your local EESIFLO representative with your application so that the most suitable version can be selected to work in the oil process being monitored.

The EASZ-1 is manufactured in sizes 1 inch to 48 inch Threaded -NPT or BSP / Flanged ANSI , DIN or JIS . The following is a specification for a 1 inch general industry version.



GENERAL SPECIFICATIONS

Size	1 inch Threaded -NPT or BSP / Flanged ANSI , DIN or JIS
Water in Oil range	0- 0.1% (0-1000 ppm) , 0-1% , 0-3% , 0-10% , 0-25% (other non standard ranges are user selectable e.g 0-4%)
Resolution	+/- 30ppm
Temperature compensation	Integral
Sensor Maximum Temperature range	0-260 degF /125 degC
Minimum recommended flow velocity	Recommend 0.15 m/s
Shipping Weight	Approximately 2kg/6lbs
Construction Material	All 316 stainless steel.
Standard Pressure Rating	16 Bar /230 psi (higher pressure consult factory)
Power Requirements	Loop Power 12/24 vdc
Electronic Housing Protection	IP 66
Electronic Housing Temperature Range	Range -40 °F -185 °F (-40 °C to 85 °C)
Hazardous Area Compliance	(optional ATEX /IECEX Zone 0)
Outputs	4-20 mA DC , RS232 Full Duplex
Display Options	Remote readout/display /low-high alarm