Oil and Water Meter, Salinity detection

August 22, 2013

PetroDAQ

0101010101
1010101010

Universal Data Acquisition

Instrumentation | Data Acquisition | Transmission | Monitoring

Principle of Operation

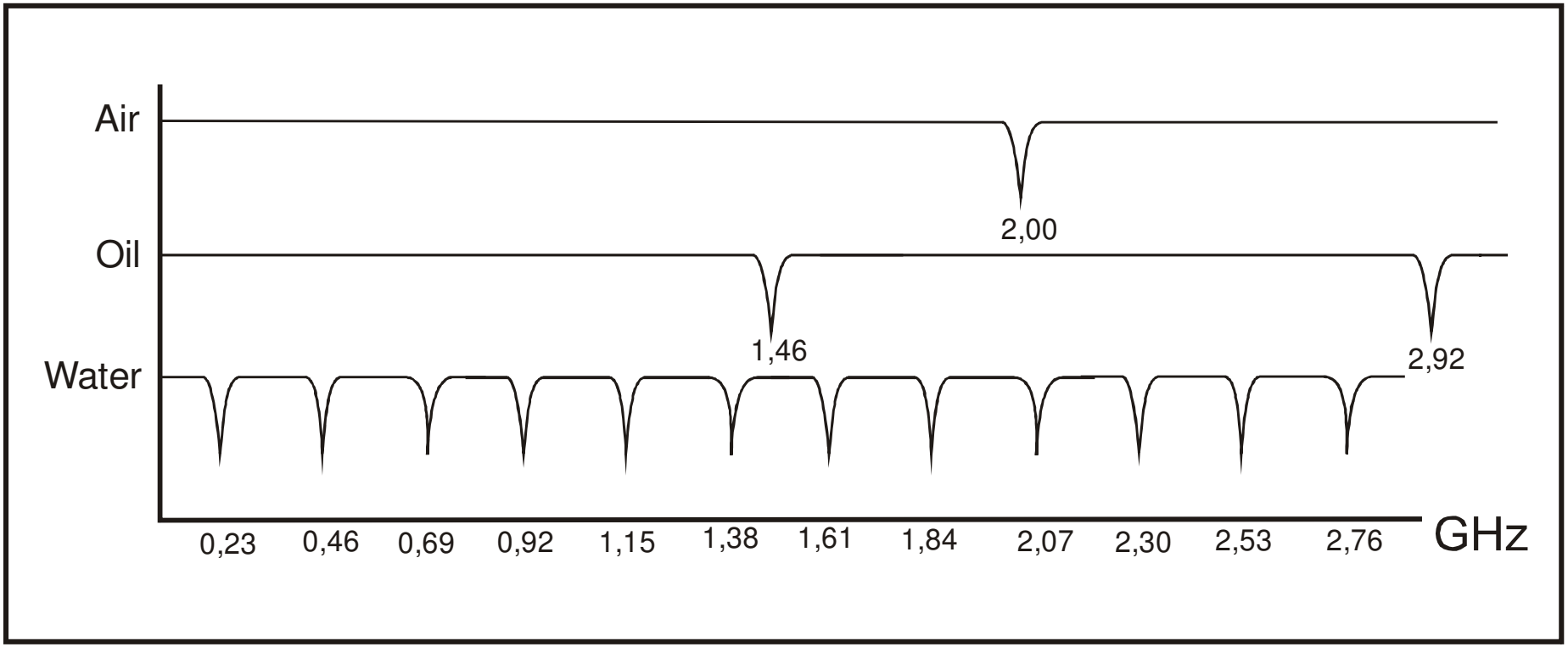
The measuring principle of the OWC series is the measurement of a electromagnetic energy losses in a given water-oil emulsion.

The OWC series is based on the principle of the dipole water molecule, as water has a considerable amount of absorption.

The sensor uses a ultrahigh frequency bandwidth up to 3.5 GHz. Absorption lines are used to determine the presence of the moisture within a given petroleum product that uses a water-oil emulsions.

Rigorous factory testing and calibration secure high accuracy that is not affected by flow rates.

Resonant Frequencies



More Water – More Shift to the left

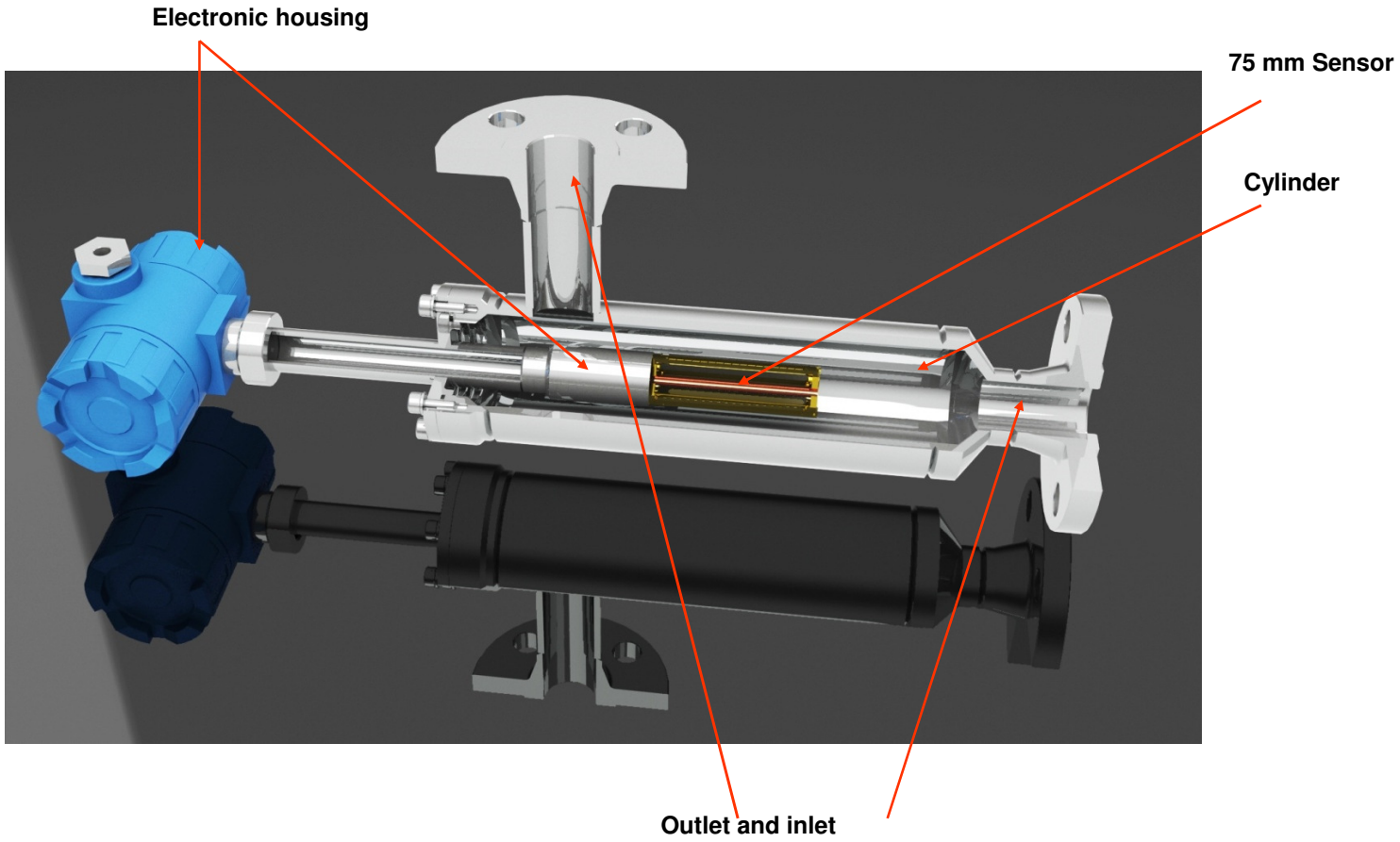
Advantages

- No Salinity effect on the OWC measurements
- Salinity measurements from 0-30% content measurement
- High frequency operation
- Accuracy up to 0,5 %
- High temperature operation
- Not affected by pressure effects

Specifications

	OWC 4005	OWC 4010
Fluid concentration range	0% to 100%	
Concentration accuracy	0.5%	1%
Operating Temperature	-5ºC to +85ºC	-5ºC to +200ºC
Temperature Accuracy	0.1ºC	
Salinity measurements	0% to 30% (by weight)	
Pressure range	0 to 20 bar (300 psi)	
Viscosity Effect	Automatically Compensated	
Connections	NPT 1”, ANSI Flange, Drop-in	
Quality Assurance	ISO 9001:2000	
Factory Calibration	Certificates are supplied	
CE compliance	EN 61326 – EN 5011 – EN 50082-2	
ATEX compliance	II 1G EEx ia IIB T4 – II 1G EEx ia IIC T5	
IEC Compliance	IEC Ex ia IIB T4 Ga/Gb	

In-line Diagram



For more information

PetroDAQ Inc

2121 Golden Rd, Suite 1-A
The Woodlands, TX 77380

sales@petrodaq.com

+1 (281) 826-1825

www.petrodaq.com