Vapor Emission Control System

In accordance to Marine Classification Society and U.S.C.G.46 CFR39.20-1 Requirements

Features

- High Reliability
- Easy to Operate
- Faulty Alarm
- Easy Installation
- Easy Maintenance
- Intrinsically Safe

Class Approval

- Class NK
- Lloyd's Register
- American Bureau of Shipping
- Det Norske Veritas (DNV)

Principle of Operation

VECS – Vapor Emission Control System is design using electrochemical gas diffusion principal for monitoring of oxygen content. The sensing unit is a two wire 4~20mA gas transmitter incorporating a sensor and microcontroller. It measures the oxygen content and provides an output via marine cable to the digital indicator in the Cargo Control Room. When the reading of the oxygen content is higher than the set point, the alarm annunciator gives an audio and visual alarm. Additionally, a Pressure Transmitter using piezoresistive sensor design can be fitted for the monitoring of pressure on the return line.

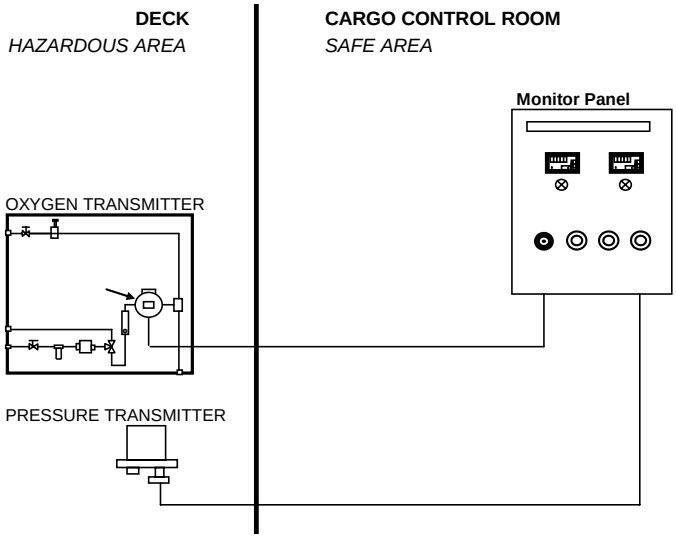
Application

VECS is developed to comply with Classification Societies & U.S.C.G. requirement to monitor the oxygen level in the cargo vapor recovery line. It is design to operate onboard marine vessel to meet terminal requirements of Oil Major.

Suitable for marine and offshore installations in chemical parcel tanker, chemical/product tanker, oil tanker, crude oil carrier, FSO, FPSO etc.

Modern reserves the right to change product design and specification without notice.

TECHNICAL SPECIFICATION



Model	: VECS
Sensing Principle	: Electrochemical gas diffusion (Oxygen) and Piezoresistive (Pressure)
Measuring Range	: 0 ~ 25 % Vol. and -200 to +400 cmH2O
Accuracy	: ±2% of Full Scale (Oxygen) and ±3 cmH_2O (Pressure)
Indicator	: Digital Readout with Alarm LED
Alarm Level	: Two User adjustable alarm level AL1 : 5% Vol. / -35 cmH2O AL2 : 8% Vol. / +180 cmH2O
Alarm Function	: Alarm : When reading exceeds Alarm Level, Alarm lamp and common buzzer will turn on. Fault Alarm : When signal cable is shorted, display shows an over-scale blinking figure. When signal cable is disconnected, display shows an under-scale blinking figure.
Operating conditions	: Oxygen Transmitter:- 20^{o}c ~ 50 ^{o}C (0 ~ 90% R.H.) Monitor Panel: 5 ~ 55 ^{o}C (35 ~ 95% R.H.)
Power Source	: AC220V, AC110V
Power Consumption	: 6W Maximum per channel
Safety Approval	: Intrinsic Safety approved by BASEEFA
Cable required	: 2 core, DPYC 1.25

Manufacturer:	Distributed by:
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