VECSAFE

OXYGEN AND VAPOUR MONITORING SYSTEM



VAPOUR EMISSION CONTROL SYSTEM (VECS)

OXYGEN AND PRESSURE MONITORING SYSTEM

VECSAFE™ monitors oxygen and pressure levels in the Vapour Emission Control System (VECS). Each vapour line is monitored during loading operations for any over or under pressurization or an oxygen level approaching 8% volume in compliance with USCG and IMO legislation.

The system comprises of a deck-mounted enclosure containing an intrinsically safe oxygen sensor and pressure sensor and associated sample pipe work, selector switches and signal communications.

The control and alarm panel is normally mounted in the cargo control room (CCR) and provides an alphanumeric display of the oxygen level and pressure reading at each point. Local audio and visual alarms can be initiated from the control panel and repeater panels are optionally available for wheelhouse and engine control room annunciation.

- Complies with USCG 46 CFR Ch 1 39.40-3
- Simple installation
- Reliable and proven technology
- Large reference list for new and retrofi t vessels
- Cost effective system to buy and maintain

TECHNICAL SPECIFICATIONS

MM2000™ CONTROL PANEL	
POWER SUPPLY:	• 110/230V ac 50/60Hz • Sensor network operating voltage • 24V dc supplied by the control unit
INDICATORS:	• Power – Green LED • Alarm – Red LED • Fault – Amber LED • Display – Four line alpha numeric
SENSOR TYPE/INPUTS:	Electrochemical (Oxygen)
OUTPUTS:	• 16 relays user selectable SPCO (zone selection for any sensor) • Relay 1 pre-set – Common low alarm • Relay 2 pre-set – Common high alarm • Relay 3 pre-set – Common over-range alarms • Relay 17 pre-set – Common fault alarm, SPCO relay • Relay 18 pre-set – Mains fail, SPCO relay normally energized • All volt-free relay contacts rated 230V ac @ 5A

martek MARINE™
Innovative Ship Solutions

Martek Marine
Adwick Park, Manvers,
Rotherham, South Yorkshire,
S63 5AB, UK

www.martek-marine.com
info@martek-marine.com
United Kingdom: +44 (0) 1709 599 222
Singapore: +65 6037 1360

TECHNICAL SPECIFICATIONS

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MM2000™ PRESSURE SENSOR	
PRESSURE RANGE:	-1000 to +3000 mmWg
MATERIAL:	Stainless Steel
CONNECTION THREAD:	1/2 inch BSP parallel
POWER SUPPLY:	10 to 30V dc
SIGNAL OUTPUT:	4~20mA, 2 wire system
ACCURACY:	≥ 0.5% of span
OPERATING TEMPERATURE:	-30 to +150ºC
EX PROTECTION:	ATEX categories M1, M2, 1G, 1D, 1/2G, 1/2D, 2G, 2D

MM1000™ OXYGEN SENSOR	
SENSOR CABLE:	• 4-core 1.5mm2 (min) screened and armoured • Contains: 2 x 24V dc power 2 x RS485 serial communications
CABLE TYPE:	• Marine approved, internal screen and overall braiding • Sensor cables terminating at control unit
ENVIRONMENTAL:	• Metal control unit (standard) – IP65 • Operating temperature -40 to +50ºC • Humidity 0 to 95% RH
MISCELLANEOUS:	• Enclosure cable entry – typically bottom via M20 glands • Alarm relays – automatic inhibit during service periods



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