

# VECSAFE®

## VAPOUR EMISSION CONTROL SYSTEM (VECS) OXYGEN & 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 & PROVEN TECHNOLOGY**
- **LARGE REFERENCE LIST FOR NEW & RETROFIT VESSELS**
- **COST EFFECTIVE SYSTEM TO BUY AND MAINTAIN**



# DATASHEET



## **SPECIFICATIONS**

### **MM2000<sup>®</sup> 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 OUTPUTS	Electrochemical (Oxygen) 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

### **MM1000<sup>®</sup> ADDRESSABLE OXYGEN SENSOR**

SENSOR CABLE	4-core 1.5mm <sup>2</sup> (min) screened and armoured Contains: 2 x 24V dc power 2 x RS485 Serial Communications
CABLE TYPE	Marine approved, internal screen & overall braiding Sensor cables terminating at control unit
ENVIRONMENTAL	Metal control unit (standard) – IP65 Operating temperature -40 to +50°C Humidity 0 to 95% RH
MISCELLANEOUS	Enclosure cable entry – typically bottom via M20 glands Alarm relays – automatic inhibit during service periods

### **MM200<sup>®</sup> 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 +105°C
EX PROTECTION	ATEX categories M1, M2, 1G, 1D 1/2G, 1/2 D, 2G, 2D



**martek<sup>®</sup>**  
— Innovating Beyond Compliance —



# SPECIFICATIONS

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