ECM Environmental Condition Monitor

Features

- **Digital and Analog Outputs**

- **Optional Datalogging**

- **High-Sensitivity Corrosion Rate Measurement**

- **Corrosion Rate, Relative Humidity, Monitors Temperature, and Differential Pressure**

- **Corrosion Rate of Copper and Silver Sensors Corresponds to ISA Standard S71.04-2 2013**
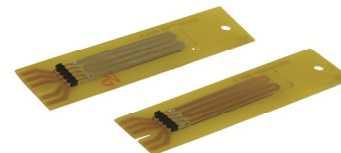
The ECM is a multi-parameter monitoring system providing constant surveillance of the environment and rapid detection of any deterioration that could result in damage to expensive equipment and valuable assets. Early detection of humid, high temperature, or corrosive conditions will permit corrective action to be taken before substantial damage occurs to sensitive computer and instrumentation systems or electrical equipment.

The system measures humidity, temperature, and the corrosive attack on two replaceable thin-film sensors. The corrosion rate is shown by indicator lights that correspond to the ISA standard S71.04-2013 classification of environments (G1 through GX) for copper and silver.

Analog and/or digital outputs of corrosion, humidity and temperature information provides remote alarming, display and recording.

The information may also be stored in the on-board data-logger, and accessed via PC software. The system can also be used as a high-sensitivity corrosion monitor for special applications.

The ECM is designed for use in monitoring controllable environments in refineries, chemical plants, pulp and paper plants, control rooms, computer rooms, museums and clean rooms. The ECM has many more features and benefits than its predecessor, the ECMS-2.

Copper and Silver Sensors

Specifications

- **Measured Parameters**
  - Corrosion: Two independent channels
  - Corrosion Rate: Rate time period user selectable: 8-99 hrs.
  - ISA Standard S71.
    04-2013:   G1 through GX
  - Temperature: +32° F to +122° F or 0° C to +50° C
  - Humidity: 10% to 95% RH
  - Differential Pressure:
    - Higher Resolution 0-0.5 i.w.g. range with 0.01" resolution

  Sensors
  2,500 Å & 4,000 Å nominal span (life). One copper and one silver
  provided with instrument.

- **Displays**
  LCD display of corrosion and corrosion rate for each channel,
  humidity, temperature, and room loss differential pressure. LED
  indicators corresponding to ISA environmental classifications.

- **Alarms**
  Corrosion rate (2 channels), low temperature, high temperature, low
  RH, high RH, differential pressure, ISA environmental classification
  (2 channels).

- **Outputs**
  - Analog: Five 4-20 mA outputs (current sinking or current sourcing) user assignable to desired parameters.
  - Digital: RS-232 or RS-485 serial output of all nine measured and calculated parameters.

- **Datalogging**
  Internal datalogger accessed by software direct from PC.

- **Data Storage:**
  1725 Readings
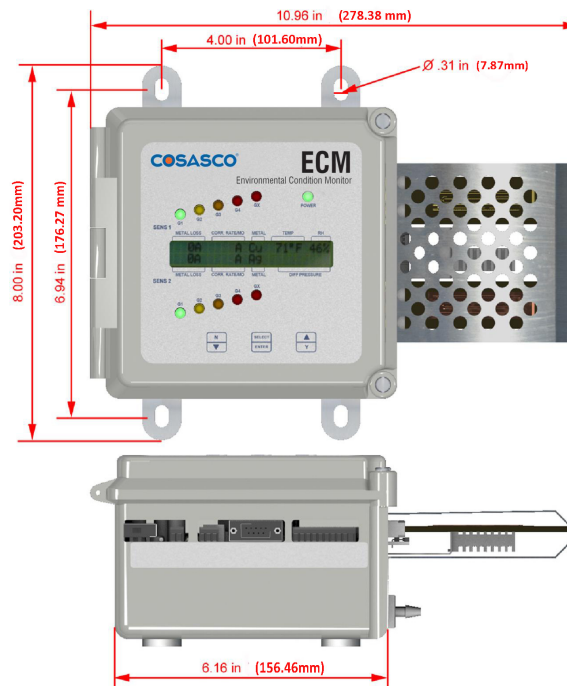
- **Power Requirements**   24 VDC, 0.4 amps.

- **Operating Temperature Range**
  +32° F to +122° F or 0° C to +50° C

- **Weight**
  5 lbs. (2.3 kg)

Dimensions

Ordering Information

Model	Description			
ECM	Environmental Condition Monitor with one Copper and one Silver sensor			
	Code	**Differential Pressure Transmitter**		
	0	Without differential pressure transmitter		
	2	With differential pressure transmitter (0-0.5 i.w.g.)		
		Code	**Data-logging Software**	
		0	Without data-logging software	
		1	With data-logging software	
			Code	**Power**
			24	Customer supplied 24 Volt DC
			115	With 115 Volt wall transformer
			230	With 230 Volt wall transformer

ECM	— 2	— 1	— 24	←	**Typical Order Number**

Recommended Accessories:

Test Sensor Kit – P/N 748321-Test sensor can be used in place of copper/silver sensors to determine if the ECM is functioning correctly, and/or if sensors are faulty or at the end of their life span.

Replacement Sensors	
Copper	610-TF50-C11000
Silver	610-TF50-P07010

ISO 9001:2008
Certificate No. FM 10694

www.cosasco.com