



PRODUCT SPECIFICATIONS

TraceNet™ ECM-OS™

ELECTRONIC CONTROL MODULE

APPLICATION

The TraceNet ECM-OS is an electronic control module specifically designed for the Offshore Industry to control electric heat trace circuits used in freeze protection and temperature maintenance applications. Available in wall (WP) mount option, the ECM serves both the temperature control as well as the sensor and power connection for a heat trace circuit.

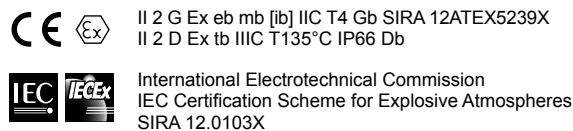
The ECM-OS is housed in a stainless steel enclosure with an environmental protection rating of IP66. Depending on options selected, the ECM-OS may be used as a combination temperature control and limiter, a temperature controller with either low or high temperature alarm, or a temperature limiter. Rotary switches are provided for adjusting temperature control and limiter set points. The standard version of the ECM-OS communicates on a physical network of RS485 by using a Modbus RTU communication protocol. Additionally, an alternate CAN Bus communication network option is available.

The ECM-OS is approved for use in both ordinary (non-classified) and hazardous (classified) areas.

RATINGS

Operating/control voltage	120/208/230 Vac
Operating ambient range.....	-60°C to 55°C
Minimum ambient storage range.....	-74°C
Control switch type options.....	SPST and DPST
Switching current ratings ¹	
SPST.....	30/30/20 amps (25°C, 40°C, 55°C)
DPST	28/23/17 amps (25°C, 40°C, 55°C)
Alarm output current rating.....	2 A
Electrical connection.....	terminal blocks ²
Adjustable temp. control range.....	0° to 500°C
Measurement range	-60° to 500°C
Measurement accuracy (ambient)	
	± 1°C (0°C to +55°C)
	± 2°C (0°C to -60°C)
Temperature sensor(s)	100 Ohm three wire Platinum RTD
High temp. alarm/trip	programmable
	(auto or manual reset)
RTD input circuitry	intrinsically safe (Ex i)
Life expectancy.....	100,000 cycles

CERTIFICATIONS/APPROVALS



THERMON The Heat Tracing Specialists®

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CONSTRUCTION

- 1 Stainless steel box
- 2 Enclosure cover 2 mm with captive M6 stainless steel combo head screws and optional window
- 3 Available with metal and non-metallic glands

PRODUCT FEATURES

- Encapsulated electronics and control
- One temperature control module for wide range of temperature control and limiter applications
- Energy saving accurate electronic temperature control action
- Data highway communication capability
- Selectable automatic or manual reset limiter action
- Control/limiter setting in degrees Centigrade or degrees Fahrenheit
- Combines power junction box and control module in one unit
- Also available as ambient thermostat

Notes

1. When located outdoors and subject to solar gain, some current de-rating will be required. Contact Thermon for additional information.
2. The terminal blocks consist of:
 - (6) 10 mm² line/load/PE terminals
 - (3) 3 mm² comm. port terminals
 - (3) 3 mm² alarm relay terminals
 - (2 x 3) 2.5 mm² sensor terminals
 See installation instructions for maximum wire size.
3. Refer to Form TEP0010, System Accessories - Heat Tracing Cables for additional accessories.



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PRODUCT REFERENCE LEGEND

ECM-C-12-P-WP-SP-OS-W

Control Type

- C = Controller (with low temp alarm)
- CH = Controller (with high temp alarm)
- L = Limiter
- CL = Controller and Limiter

Comm. Network

- 0 = None
- 1 = RS485
- 2 = CAN-Bus

Nominal

Voltage Range

- 1 = 120 Vac
- 2 = 230 Vac
- 3 = 208 Vac

W* = Cover Window

Switch Configuration

- SP = Single Pole
- DP = Double Pole

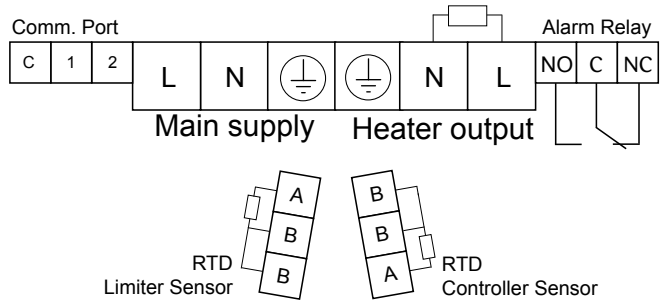
Mounting Options

- WP = Wall Mount

Cable Profile

- P = RSX, VSX, BSX, KSX, HTSX, FP, HPT
- R = TESH
- MI = MIQ, MIS

TYPICAL WIRING DIAGRAM (for controller with limiter)



NOTE: * = OPTIONAL