EC-TS

nVent
RAYCHEM

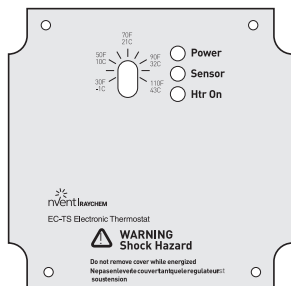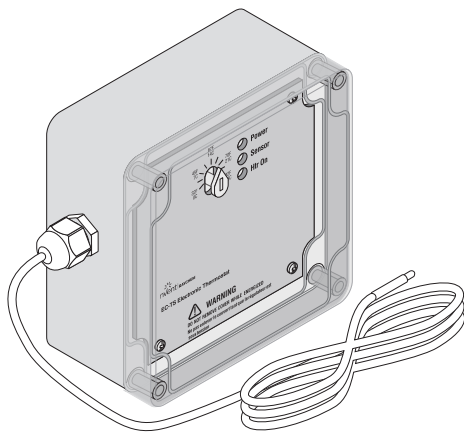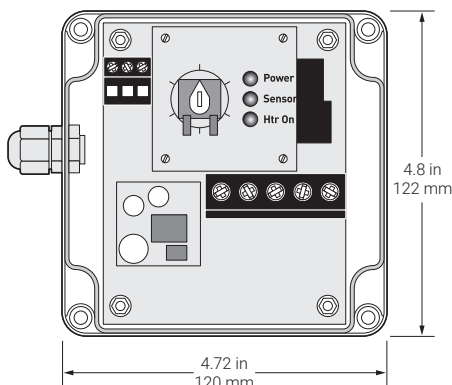## Ambient, pipe or slab sensing electronic thermostat with 25 foot temperature sensing lead

PRODUCT OVERVIEW

Wire Cover

EC-TS without Wire Cover

The nVent RAYCHEM EC-TS electronic thermostat is an ambient, pipe or slab sensing thermostat that is ideal for pipe freeze protection, flow maintenance, freezer frost heave, floor heating and snow melting applications. The EC-TS can be used to control a single heat-tracing-circuit or as a pilot control of a contactor switching multiple heat-tracing circuits. The temperature set point can be visually checked through the clear lid, as can the LED indicators for alarm, power and heating cable status. The stainless steel temperature sensor makes it an ideal thermostat for applications that require an embedded sensor.

GENERAL

Area of use	Ordinary area, outdoor
Approvals	 LISTED 80BJ Energy Management Equipment
Supply voltage	100−277 Vac ±10% 50−60 Hz. Auto ranging Common supply for controller and heat-tracing circuit

ENCLOSURE

Protection	NEMA 4X
Cover attachment	Captive stainless steel screws
Entries	2 x ½ in conduit entries for power 1 gland entry for the sensor
Material	Polycarbonate
Mounting	Wall mounted
Relative humidity	0% to 90%, noncondensing
Ambient installation and usage temperature	−40°F to 140°F (−40°C to 60°C)

CONTROL

Max. switching current	30 A, 277 Vac
Switch type	SPST (normally open)
Deadband	−0°F, +3°F (−0°C, +1.7°C)
Set point accuracy	±3°F (1.7°C)
Adjustable temperature range	30°F to 110°F (−1°C to 43°C)

MONITORING

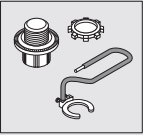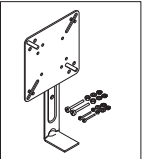|	
Sensor failure	Shorted or open sensor
Units	°F and °C
LEDs	Green LED for power available Green LED for heating cable on Red LED for sensor failure

TEMPERATURE SENSOR

Type	Thermistor – 0.2°C, 10K ohm, Curve "A"
Construction	3 wire (twisted shielded pair plus ground)
Exposure temperature	Minimum: −40°F (−40°C) Maximum: 212°F (100°C)
Sensor sheath	304 stainless steel
Sensor diameter	0.25 in (0.63 cm)
Sensor length	2 in (5.1 cm)
Leads	20 AWG stranded, PVC overall jacket
Lead length	25 ft (7.6 m)

The sensor cable may be extended to a maximum of 100 ft (30 m) using a 3 wire (twisted shielded pair plus ground) with a wire gauge size of 20 AWG or larger.

CONNECTION TERMINALS

Power supply input	Screw Rising Cage Clamp, 18 – 6 AWG
Heating cable output	Screw Rising Cage Clamp, 18 – 6 AWG
Ground	Screw Rising Cage Clamp, 18 – 6 AWG
Thermistor (sensor)	Screw Rising Cage Clamp, 22 – 14 AWG

ORDERING DETAILS

Description	Catalog Number	Part Number	Weight/lbs
Electronic thermostat with 25 ft sensing lead	EC-TS	P000001115	1.2
Spare Parts and Accessories			
Replacement temperature sensor for EC-TS and ECW-GF controllers	EC-SENSOR-25	P000000802	0.68
MI cable grounding kit (required if installing MI heating cable)	MI-GROUND-KIT	P000000279	0.2
Pipe support bracket	SB-110	707366	1.0

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