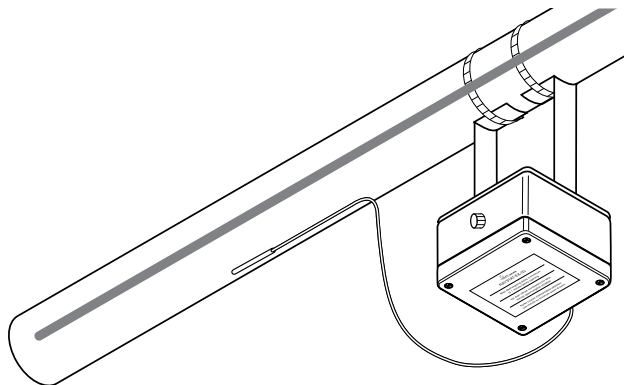


### SURFACE SENSING ELECTRONIC THERMOSTAT



#### PRODUCT OVERVIEW

The nVent RAYCHEM ETS-05 electronic surface sensing thermostat provides accurate temperature control for heating cables.


The ETS-05 is available in two versions. The ETS-05-L2-E is for temperatures up to 199°C, while the ETS-05-H2-E can be used for temperatures up to 499°C. The maximum nominal load is 32 A for both thermostats. Temperature setting is accurate via digital rotary switches inside the enclosure.

The ETS-05 has a LED indicator which indicates the status of the thermostat (powered on/off), the status of the heat-tracing cable (powered on/off) and the status of the sensor. In case of sensor failure the thermostat can switch to an on or off state, depending upon the users requirement.



#### PRODUCT CHARACTERISTICS

	ETS-05-L2-E (P)	ETS-05-H2-E (P)
Application	Surface sensing	Surface sensing
Area of use	Hazardous area: Zone 1 or Zone 2 (Gas) or Zone 21 or Zone 22 (Dust) Ordinary	

#### APPROVALS CERTIFICATION

nVent RAYCHEM – ETS-05 Electronic Thermostat  II 2(1)G II 2D  
 Ex e ia mb (Ga) IIC T5 Gb  
 Ex tb IIIC T100°C Db  
 Ta -40 to +60°C Supply = 99-121V (ETS-05-x1-x) or 195-230V (ETS-05-x2-x)  
 Maximum switched current 32A Resistive  
 IECEx BAS 13.0071  
 Baseefa13ATEX0137  
 Um=253V  
 Ex tb IIIC T100°C Db IP66

Max. Current = 0.5A  
 Prospective short circuit current 1500A

  TC RU C-BE.ИМ43.В.01764 000 "ТехИмпорт"  
 1Ex e ia mb [ia Ga] IIC T5 Gb X  
 IP66 Ta -60°C...+60°  
 Made in GB  
 Ex tb IIIC T100°C Db X 000 "ТехИмпорт"  
 1Ex e ia mb [ia Ga] IIC T5 Gb  
 Ex tb IIIC T100°C Db  
 IP66 Ta -60°C...+60°  
 Made in GB

#### PRODUCT SPECIFICATION

	Order ETS-05-L2-E	Order ETS-05-H2-E
No earth plate (standard)	Order ETS-05-L2-E	Order ETS-05-H2-E
With earth plate (optional)	Order ETS-05-L2-EP	Order ETS-05-H2-EP
Temperature setpoint range	0°C to 199°C	0°C to 499°C
Temperature measurement range	-55°C to 260°C	-55°C to 585°C
Maximum sensor lead resistance	20 Ohm	20 Ohm
Ingress protection	IP66	IP66
Switching accuracy	±1 K at 5°C	±1 K at 5°C, 2°C at 499°C
Switching differential (Hysteresis)	≈ 3°C	≈ 3°C
Output relay	Single Pole change over type (SPST)	Single Pole change over type (SPST)
Switching capacity	32 A resistive load	32 A resistive load
Ambient temperature range	-40°C to + 60°C	-40°C to + 60°C
Supply voltage	230 V +10% / -15% 50/60 Hz	230 V +10% / -15% 50/60 Hz
Internal power consumption	3 VA	3 VA
Terminal size	max. 6 mm <sup>2</sup>	max. 6 mm <sup>2</sup>

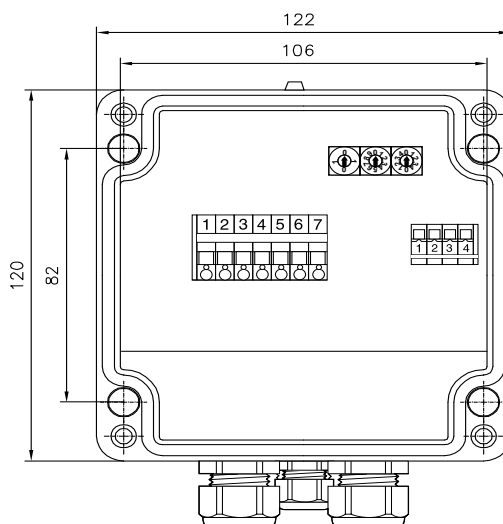
**PRODUCT SPECIFICATION**

Cable entries	2 x M25: 1 x M25 gland for power cable in 1 x M25 rain plug for heating cable out	2 x M25: 1 x M25 gland for power cable in 1 x M25 rain plug for heating cable out
Sensor	M16 gland with 3 wire PT100 flexible sensor, 2 m long	M16 gland with 3 wire PT100, stainless steel sensor, 2 m long,

**LED STATUS INDICATIONS**

Green: ETS-05 powered on, heat-tracing cable off	Green: ETS-05 powered on, heat-tracing cable off
Yellow: ETS-05 powered on, heat-tracing cable on	Yellow: ETS-05 powered on, heat-tracing cable on
Red flashing: Sensor failure - controller in fail safe mode	Red flashing: Sensor failure - controller in fail safe mode

**DIMENSIONS (IN MM)**



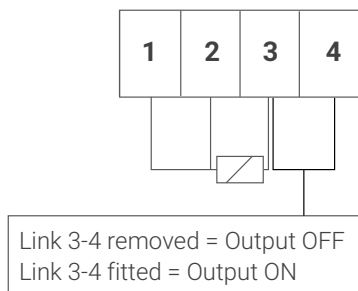
**Power Terminals**

1	2	3	4	5	6	7
Line Out	Neutral Out	Neutral Supply	230V Supply	Earth	Earth	Earth

Terminals 2 and 3 are joined electrically

Terminals 5, 6 and 7 are joined electrically

**Sensor/Failure Mode Select Terminals**



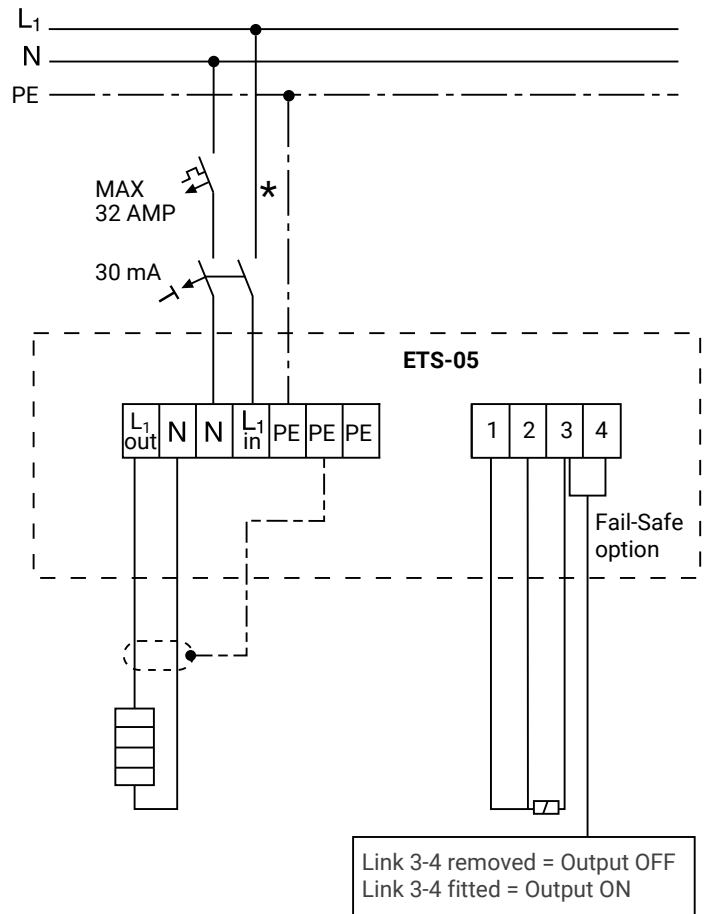
Terminals 1 to 3 allow for the connection of a three wire PT100 sensor.

Terminals 3 to 4 allow the user to select the default heating status on sensor error.

Without a link fitted the heating will turn OFF if a sensor error is detected (default)

With a link fitted the heating will turn ON if a sensor error is detected

**TYPICAL WIRING DIAGRAM FOR DIRECT SWITCHING**



\* Circuit breaker configurations may vary according to local standards/requirements

**MOUNTING METHOD**

Support bracket SB-100, SB-101, SB-110, SB-111, SB-130 or surface mounting with 4 fixing holes on 106 x 82 mm centres

Support bracket SB-100, or SB-101, SB-110, SB-111, SB-130 or surface mounting with 4 fixing holes on 106 x 82 mm centres

**ORDERING DETAILS**

Product Name	ETS-05-L2-E	ETS-05-L2-EP	ETS-05-H2-E	ETS-05-H2-EP
Part number	1244-014367	1244-017508	1244-014368	1244-017509

**North America**

Tel +1.800.545.6258  
 Fax +1.800.527.5703  
 thermal.info@nvent.com

**Europe, Middle East, Africa**

Tel +32.16.213.511  
 Fax +32.16.213.604  
 thermal.info@nvent.com

**Asia Pacific**

Tel +86.21.2412.1688  
 Fax +86.21.5426.3167  
 cn.thermal.info@nvent.com

**Latin America**

Tel +1.713.868.4800  
 Fax +1.713.868.2333  
 thermal.info@nvent.com



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