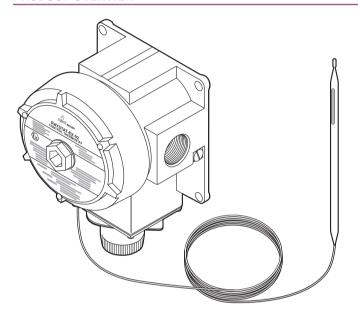


# **RAYSTAT-EX-02**

# Surface sensing mechanical thermostat &

#### **PRODUCT OVERVIEW**



This EEx d approved surface sensing thermostat provides temperature control for all nVent RAYCHEM BTV, QTVR, VPL and XTVR heating cables in hazardous areas. The switching temperature range is  $-4^{\circ}$ C to +163°C and is adjustable externally to the Ex enclosure by a dial mounted under a bolted-on cover and seal.

The switching current capacity is 22 A. It has a single pole change-over switch with volt-free contacts.

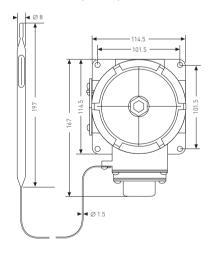
Cable entry is through a single 3/4" NPT thread entry. nVent RAYCHEM cable glands are available to suit non-armoured and armoured cable.

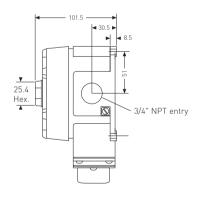
The 3 m long stainless steel fluid filled bulb and capillary give freedom to locate the enclosure remote from the bulb. The bulb exposure range is  $-50^{\circ}$ C to  $+215^{\circ}$ C.

The cast aluminium construction with stainless steel fittings gives a lightweight unit which can be pipe mounted using nVent RAYCHEM support brackets or surface mounted.

### **PRODUCT SPECIFICATIONS**

#### Dimensions (in mm)





#### **Enclosure**

Body and lid	Lacquer coated cast aluminium with stainless steel fittings and nitrile rubber internal lid seal	
Protection	IP 65 if installed with nVent RAYCHEM cable glands GL-33 or GL-34	
Lid fixing	Screw thread lid locked in place by a 2 mm hexagonal key grub screw	
Entry	1 x 3/4" NPT	
Ambient operating temperature	-40°C to +60°C	

156

RAYCHEM-DS-EU1427-RAYSTATEX02-EN-2401

# **Temperature sensing**

Туре	Fluid filled bulb and capillary
Dimensions	Capillary 3 m long, bulb 197 mm x 8 mm
Material	Stainless steel (Type SS316)
Exposure temperature	−50°C to +215°C
Minimum bend radius	Do not bend bulb, 15 mm for capillary

Туре	Single pole change over volt free contacts (SPDT)
Rating	22 A at 480 Vac, switching (100.000 cycles)

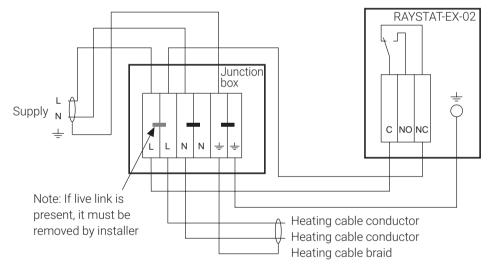
#### Setting

Range	-4°C to +163°C
Repeatability	±1.7 K
Differential	5 K
Accuracy (switch on)	±4.5°C at 21°C ambient and 50°C sensor temperature
Method	External knob and dial

#### **Connection terminals**

Supply	3 terminals for 1 to 4 mm <sup>2</sup> conductors
Internal earth	Single bolt for 1 to 4 mm <sup>2</sup> conductors
External earth	Single bolt and clamp for 1 to 4 mm <sup>2</sup> conductors

#### Connection details and thermostat control system



#### Maximum recommended heating cable lengths (230 V supply)

The maximum recommended heating cable length is restricted by the electrical protection sizing or the switching capacity of the RAYSTAT-EX-02.

### For circuits and electrical protection rated up to and including 20 A

Use the maximum recommended heating cable lengths, mentioned in the cable datasheet.

# For circuits and electrical protection rated above 20 A but less than or equal to 22 A

Use the shorter length of the values given in the cable datasheet and those given for your switching temperature in the table below.

For circuits and electrical protection rated above 22 A, RAYSTAT-EX-02 must NOT be connected for direct switching.

157

RAYCHEM-DS-EU1427-RAYSTATEX02-EN-2401

3BTV2-CT/-CR

Switching temp. (°C)

100 to 110

115 to 120

125 to 150

5BTV2-CT/-CR

IOBTV2-CT/-CR

BBTV2-CT/-CR











nVent RAYCHEM support bracket nVent RAYCHEM SB-100, SB-101, SB-110, SB-111, SB-125 or surface mounting with 4 fixing holes (M6) on 101.5 x 101.5 mm centres

#### **APPROVALS**

For use in ordinary and hazardous area Zone 1 and Zone 2 (Gas), Zone 21 and Zone 22 (Dust)

#### **Temperature classification**

## **Product certification**













20XTV2-CT-T2

65 215

70 | 225

75 | 225

75 | 225

75 | 225

85 | 225

95 | 225

**5KTV2-CT** 

20KTV2-CT

65 220

65 220

70 | 220

70 | 220

75 | 220

75 | 220

5VPL2

15 VPL 2

95 70

95 70

95 70

100 70

100 | 75

100 | 75

100 | 75

105 75

105 | 75

110 80

110 | 80

115 | 80

115 | 85

125 95

**IOVPL2** 

20VPL2

ISKTV2-CT

**BKTV2-CT** 

5XTV2-CT-T3

12XTV2-CT-T3

**8XTV2-CT-T3** 

4XTV2-CT-T3

5QTVR2-CT

0QTVR2-CT

L max. (m) - Maximum recommended heating cable length

20QTVR2-CT

More details about product certification, approvals and conditions of safe use are available in the installation manual at www.nVent.com/RAYCHEM.

#### **ORDERING INFORMATION**

Part description	RAYSTAT-EX-02
PN (Weight)	404385-000 (1.77 kg)

#### Accessories

Power cable gland for armoured cable	GL-33	493217-000
Power cable gland for non-armoured cable	GL-34	931945-000
(to be ordered separately)		

RAYCHEM-DS-EU1427-RAYSTATEX02-EN-240