



Temperature control of heat trace circuits in safe or hazardous areas

**Capillary Thermostats** 

- Three wide span temperature ranges
- Stainless steel sensor and capillary tube
- Optional over-temperature lock-out
- Approved for use in Zone 1 and 2 hazardous areas
- Enclosures suitable for Gas groups IIA, IIB & IIC
- Stainless steel armoured capillary

# **FEATURES**

Capstats are temperature adjustable ON-OFF thermostats comprising a liquid filled sensing bulb conected to an electrical switch via a capillary

Expansion of the liquid on rise in temperature causes the switch to open, and on cooling, it closes.

Capstats may control surface temperatures such as pipes or vessels, or the sensing bulb may be positioned to sense the air temperature.

They may be used to provide process temperature control in safe or Zone 1 or 2 hazardous areas by switching the heating circuits at the desired temperature and are available to suit Group IIA, IIB or IIC gases.

The addition of a high limit cut-out switch (as provided with the Capstat-Dual version) is specified when the heat tracing scheme will not stabilise at a safe temperature without process control. It will operate if the process control switch fails or if an unsafe process temperature occurs.

# **OPTIONS**

CT-FL ../X Hazardous area Ex d Capstat

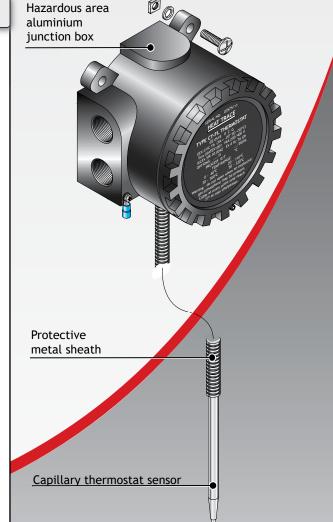
suitable for use in Zone 1 and 2 hazardous areas, Gas Groups IIA,

IIB and IIC.

Hazardous area Ex d Capstat CT-FL ../X/DUAL

> suitable for use in Zone 1 and 2 hazardous areas, Gas Groups IIA, IIB and IIC. Over-temperature lock-out (20° - 300°C) (Factory

preset)



















# **SPECIFICATION**

### THERMOSTAT SPECIFICATION:

	Type 0-120	Type 50-300
Temp. range (°C):	0-120	50-300
Setting accuaracy:	±3	±6
Switch differential (°C)	3±1.5k	10±4k
Max. sensor temp:	140°C	320°C
Min. sensor temp:	-30°C	-30°C
Capillary tube length:	1.0m	1.0m
Sensor diameter:	5mm	5mm
Sensor length (mm):	106	60
Capillary tube material:	Stainle	occ Stool

Capillary tube material: Stainless Steel

Capillary tube protection: Stainless Steel Conduit
Sensor type: Liquid Filled

Sensor material: Stainless Steel

SWITCH TYPE: Single Pole,
Single Throw Changeover

SWITCH RATING: 20A (Max), 230V / 400V

resistive load

SWITCH LIFE:
TEMPERATURE SETTING

ADJUSTMENT: Internal Tamperproof Knob

INGRESS PROTECTION: IP66

ENCLOSURE: CT-FL

Material: Cast Aluminium

Finish: Anodised black, Paint, Powder Coating or Epoxy

3 x 6 - 25mm Diameter

100,000 operations

Weight: 4.3kg

STANDARD ENTRIES: 3 x M20

TERMINALS: Electrical connections 2.5mm<sup>2</sup>

terminals (incoming/outgoing)

MAX. POWER DISSAPATION: 16.80W

### APPROVAL DETAILS:

Conduit entries:

ATEX - CML 19ATEX1461 IECEx - IECEx CML 17.0113 UKEX - CML 21UKEX11134 CCC - 2020312304000837

# **EQUIPMENT MARKING:**

(Ex) II 2 G Ex db IIC T6 Gb Ta= -30°C≤Ta≤+50°C

Ex db IIC T4 Gb Ta= -30°C≤Ta≤+60°C

#### 'DUAL' SPECIFICATION:

	Low Temperature Thermostat	High Temperature Thermostat
Temperature Range:	0 - 120°C	50 - 320°C
Switching Differential:	± 3°C	± 7°C
Probe Diameter: Length:	Ø6mm 1000mm	Ø5mm 1000mm
Maximum Sensor Temperature:	140°C	320°C

**EARTHING:** Internal and external earthing options available.

### **BLANKING PLUGS:**

The equipment is not supplied with blanking plugs or cable glands, it is the responsibility of the user to ensure that suitably certified glands/plugs are fitted that do not affect the type of protection.

A bottom entry may also be fitted with Peppers type 781D breather / drain plug.

(Sira 10ATEX1307U / IECEX SIR 10.0149U).

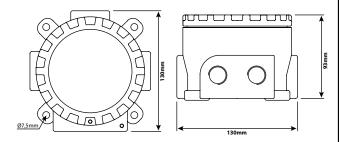
Only use approved termination methods that are provided.

# **ORDERING INFORMATION:**

	CT-FL	. / 2C / 0	)-120 /	X /DUAI
Example				
Capstat capillary Thermostat				
Temperatures range	(0-120°	C) —		
Armoured capillary				]
Dual lock-out* ——				

<sup>\*</sup> when ordering a Dual thermostat, please state the maximum permissable workpiece surface temperature (factory preset).

### CT-FL/2C VERSION:





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