

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 tube.

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.

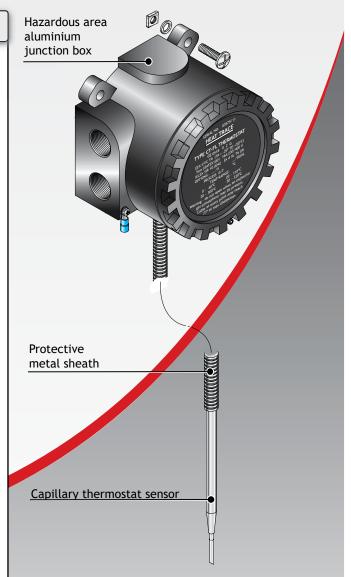
They may be used to provide process temperature control in safe or Zone 1 or 2 hazardous areas by switching the heating circuits at the desired temperature and are available to suit Group IIA, IIB or IIC gases.

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

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 A	Туре В	Туре С	
Temp. range (°C):	0-40	20-110	20-300	
Setting accuaracy:	±6	±6	±6	
Switch differential (°C	) 2±1.5k	4±2k	10±4k	
Max. sensor temp:	110°C	140°C	320°C	
Min. sensor temp:	-20°C	-20°C	-15°C	
Capillary tube length:	1.5m	1.5m	1.5m	
Sensor diameter:	6mm	6mm	6mm	
Sensor length (mm):	143	140	89.5	
Capillary tube materia	•			
Capillary tube protecti	ection: Stainless Steel Conduit			
Sensor type:	Liquid Filled			
Sensor material:	St	ainless Ste	eel	
SWITCH TYPE:	Single T	Sing hrow Cha	gle Pole, ngeover	
SWITCH RATING:	16A (/	Max), 230 resisti	V / 400V ve load	
SWITCH LIFE:	1(	00,000 ope	erations	
TEMPERATURE SETTING       ADJUSTMENT:     Internal Tamperproof Knob				
INGRESS PROTECTION:			IP66	
ENCLOSURE:	CT-FL			
Material:		Cast Alu	ıminium	
Finish: A	Anodised black, Paint, Powder			
		Coating o	r Epoxy	
Conduit entries:	3 x 6	- 25mm D	liameter	
Weight:			4.3kg	
STANDARD ENTRIES:			3 x M20	
	ectrical con erminals (in			
MAX. POWER DISSAPAT	TON:		16.80W	
APPROVAL DETAILS:				
ATEX -	CML 19ATE	X1461		
IECEx -	IECEX CML			
JAPAN -	CML 17JPN	X8UUSX		
EQUIPMENT MARKING:				
⟨₤x⟩ II 2 G Ex db IIC T6 Gb				
	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:	35 - 120°C	100 - 320°C	
Switching Differential:	± 4.5°C	± 8°C	
Probe Diameter: Length:	Ø6mm 1067mm	Ø3mm 875mm	
Maximum Sensor Temperature:	As indicated for types A, B or C as appropriate		
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

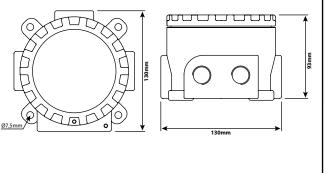
## provided.

### **ORDERING INFORMATION:**

	CT-FL / 2C / A / X /DU/	AL
Example		
Capstat capillary Thermostat Temperatures range (0-40 Armoured capillary Dual lock-out*	°C)	

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

#### CT-FL/2C VERSION:



CPDS0601 (06012022) Issue 5



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