





**Capillary Thermostats** 

Temperature control of heat trace circuits in safe or hazardous areas

- 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 LLA, LLB or LLC 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	Type B	Type C	
Temp. range (°C)	0-40	20-110	20-300	
Setting accuracy	±6	±6	±14	
Switch differential (°C)	2±1.5k	4±2k	10±4k	
Max. sensor temp (°C)	110	140	320	
Min. sensor temp (°C)	-20	-20	-15	
Capillary tube length (n	n) 1.5	1.5	1.5	
Capillary tube material	Stainless	Steel		
Capillary tube protection	n Stainless	Stainless Steel Conduit		
Sensor diameter (mm)	6	6	6	
Sensor length (mm)	143.5	140	89.5	
Sensor type	Liquid Fi	Liquid Filled		
Sensor Material	Stainless	Stainless Steel		
SWITCH TYPE		Single Pole, Single Throw Changeover		
SWITCH RATING		16A (Max), 230V/400V resistive load		
SWITCH LIFE	100,000	100,000 operations		
TEMPERATURE SETTING ADJUSTMEN	IT Internal	Tamperpr	oof Knob	
INGRESS PROTECTION	V IP66			
ENCLOSURE	CT-FL			
Material Cast	Cast aluminium			
	Anodised black, Paint, Powder Coating or Epoxy			
Conduit entries 3 x 1	3 x 16 - 25mm Diameter			
Dimensions 130 x	130 x 130 x 93			
Weight 4.3kg	3			
Protection Ex(di	o)			
Area Suitability Zone	1 or 2 IIA or	IIB or llC		
TERMINALS Electrical connections 2.5mm <sup>2</sup> terminals (incoming/outgoing)				
MAX POWER DISSIPATION			16.80W	
ORDERING INFORMATION				

# \* When ordering a Dual thermostat, please state the maximum permissible workpiece surface temperature (factory preset)

Example

Armoured capillary
Dual lock-out\*

# 'DUAL' SPECIFICATION

	Low Temperature Thermostat	High Temperature Thermostat	
Temperature Range	35 - 120°C	100 - 320°C	
Switching Differential	+/- 4.5°C	+/- 8°C	
Maximum Sensor Temperature	As indicated for types A, B or C as appropriate		
Probe Diameter x Length	Ø6mm x 1067mm	Ø3mm x 875mm	
EADTHING			

#### **EARTHING**

Internal and external earthing options available

# 'T' CLASSES

CT-FL	AJB/D
$Ta = -30^{\circ}C \text{ to } +50^{\circ}C = T6$	$Ta = -50^{\circ}C \text{ to } +50^{\circ}C = T6$
$Ta = -30^{\circ}C \text{ to } +60^{\circ}C = T4$	$Ta = -50^{\circ}C \text{ to } +60^{\circ}C = T4$

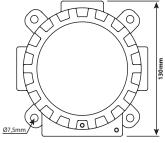
# **BLANKING PLUGS**

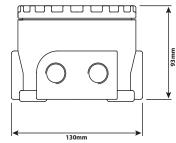
The equipment is not supplied with blanking plugs or cable glands, it is the responsibility of the user to ensure that suitably certified glands/plugs are fitted that do not affect the type of protection. A bottom entry may also be fitted with Peppers type 781D breather / drain plug. (Sira 10ATEX1307U /IECEX SIR 10.0149U). Only use approved termination methods that are provided.

# **APPROVAL DETAILS - CT-FL**

Testing Authority	Certificate No.
ATEX (Ex)	CML 17ATEX1202
IECEX IEC	IECEx CML 17.0113
EAC [fi]	TC RU C-GB MЮ62.B.06043

#### CT-FL/2C VERSION





T-FL 19062019



CT-FL/2C/A/X/DUAL