



Temperature control of heat trace
circuits in safe or hazardous areas

CAPSTAT

Capillary Thermostats

- Three wide span temperature ranges
- Stainless steel sensor and capillary tube
- Optional over-temperature lock-out
- ATEX approved for use in Zone 1 and 2 hazardous areas (CT-FL version)
- Enclosures suitable for Gas groups IIA, IIB & IIC
- Optional stainless steel armoured capillary

FEATURES

Capstats are temperature adjustable ON-OFF thermostats comprising a liquid filled sensing bulb connected 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.
(EEx'd' barrier glands are mandatory).

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 | Capstat for use in safe areas. |
| CT-FL | Hazardous area EEx'd Capstat suitable for use in Zone 1 and 2 hazardous areas, Gas Groups IIA, IIB and IIC. |
| CT ..X | Optional armoured capillary provides additional mechanical protection for the capillary tube(s). |
| CT ..DUAL | Over-temperature lock-out (20° - 300°C)
(Factory preset) |



Capstat Type CT



Capstat Type CT-FL

SPECIFICATION

THERMOSTAT SPECIFICATION

	Type A	Type B	Type C
Temp. range (°C)	0–40	20–110	20–300
Setting accuracy	±6	±6	±12
Switch differential (°C)	4±2	4±2	5.5±2.5
Max. sensor temp (°C)	130	140	320
Min. sensor temp (°C)	–20	–20	–20
Capillary tube length (m)	1.5	1.5	1.5
Capillary tube material	Stainless Steel		
Capillary tube protection	Stainless Steel Conduit (optional)		
Sensor diameter (mm)	6	6	6
Sensor length (mm)	116	119	77
Sensor type	Liquid Filled		
Sensor Material	Stainless Steel		

SWITCH TYPE Single Pole, Double Throw Changeover

SWITCH RATING 16A (Max), 250V/380V resistive load

SWITCH LIFE 100,000 under load (Min)

TEMPERATURE SETTING ADJUSTMENT Internal Tamperproof Knob

ENCLOSURE

	CT	CT-FL
IP rating	IP66	IP65
Material	Glass reinforced Polyamide	Cast aluminium
Finish	Matt black	Anodised black
Conduit entries	3 x 20mm	3 x 20mm
Dimensions	120 x 120 x 70	132 x 132 x 70
Weight	0.9kg	4.3kg
Protection	N/A	Ex(d)
Area Suitability	Safe	Zone 1 or 2 IIA or IIB or IIC

TERMINALS

ELECTRICAL CONNECTIONS 2.5mm² terminals (incoming/outgoing)
4.0mm² terminals to special order
10mm² internal earth terminal

ORDERING INFORMATION

Example

Capstat capillary thermostat _____
Hazardous area version _____
Temperature range (0 – 40°C) _____
Optional armoured capillary _____
Dual lock-out * _____

CT-FL/A/X/DUAL

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

'DUAL' SPECIFICATION

TEMPERATURE RANGE	20 – 320°C
SWITCHING DIFFERENTIAL	Resettable (see note)
MAXIMUM SENSOR TEMPERATURE	As indicated for types A, B or C as appropriate
MINIMUM SENSOR TEMPERATURE	–20°C
MAXIMUM ENCLOSURE TEMPERATURE	120°C
PROBE DIAMETER & LENGTH	4mm dia x 90mm x 1m

Note

The thermal cut-out can be reset when the temperature of the sensor has fallen approx 30°C below high limit set-point.

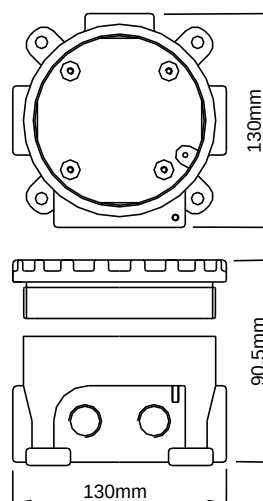
BLANKING PLUGS

Ex(d) certified blanking plugs for flameproof thermostats are available at extra cost on request.

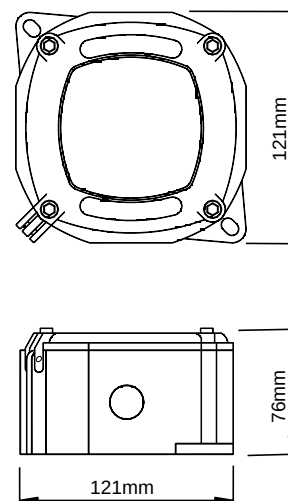
APPROVAL DETAILS

CAT REF	SIRA	European Standard
CT-FL	SIRA03ATEX1001	EN50014 : 1997 (A1 + A2) EN50018 : 2000

CT-FL/2C VERSION



CT VERSION



HEAT TRACE™
SETTING THE STANDARDS LEADING THE WAY

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