

CaLCTec

**Precision electro-optical components based on
Liquid Crystals Technology**

We design and manufacture:

- Switchable polarization rotators
- Variable optical retarders
- Intensity modulators
- Phase modulators
- Electro-optical shutters
- Prototypes of liquid crystals devices.

**...and we supply services in the field of Liquid
Crystals and thin films technology:**

- ITO engraving
- Surface coating for LC alignment (SiO,
Polyimides, Polymers, Sylanes, LB films)
- Empty cells for Liquid Crystals optical and
electro-optical measurements.

**We also design and manufacture precision instru-
ments for scientific and R&D laboratories:**

- Spin-Coaters
- Hot-Stages and Temperature controllers
- Dispenser
- Rubbing machine.

CaLCTec S.r.l.

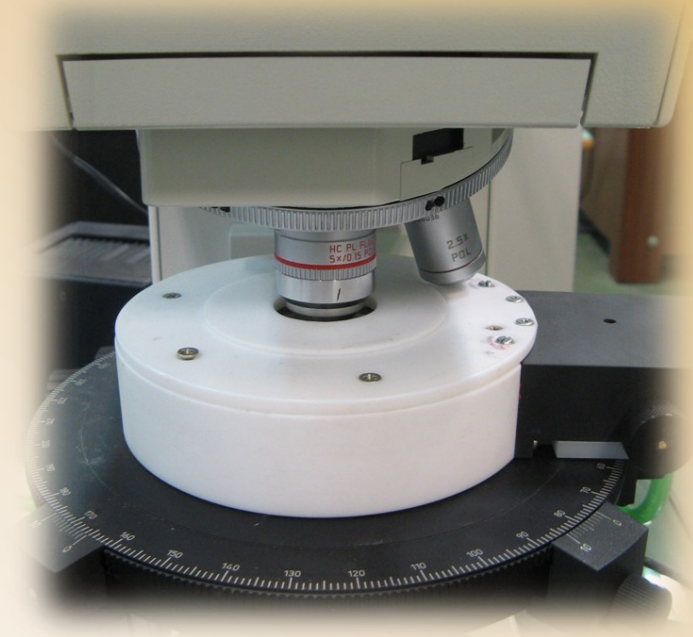
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Calabria Liquid Crystals Technology

Temperature Controllers

Temperature Controllers

*Hot stage series specially made to control
samples temperature in a range between room
temperature and 600°C.*

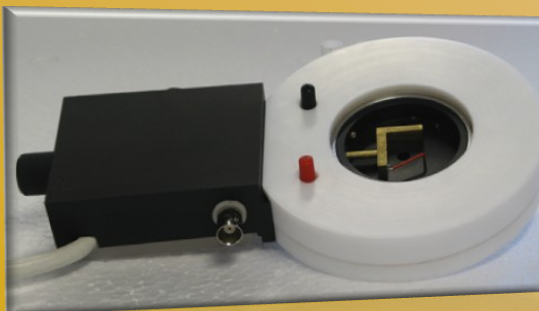


Compact external dimensions allows an easy use for every applications.....

*A set of options gives to the user the possibility to customize these items to match all own needs.....
and over all....It 's possible the customization of all items according to users requests!!*

Available Options:

- **XY option** – two dimensional inner movement (xy)
- **MX option** – one dimensional inner movement (x)
- **MY option** – one dimensional inner movement (y)
- **PE option** – conductive pin to apply external fields to the sample.
- **FC option** – Gas fluxing into the hot-chamber.
- **SL option** – Thickness reduction (in 4mm, out 19mm)
- **I3 option** – 3 cables PT100 sensor
- **RO option** – rotating flange (allows the rotation of the hot-stage)
- **E3 option** – temperature external probe

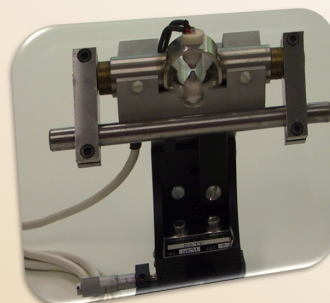


Principal Features:

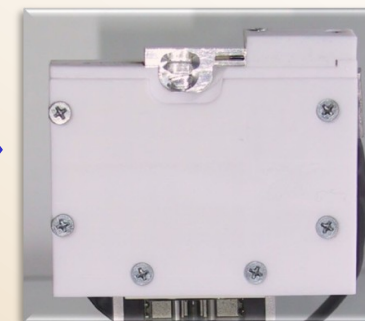
- PID digital control
- Schedule possibility
- 2 cables PT100 sensor
- Sample holder system
- Resolution 0,1 °C
- Temperature precision (@100°C) less than $\pm 0,30\%$
- Temperature fluctuation (@100°C) less than $\pm 0,15\%$ RMS
- Internal dimensions: Æ 47mm x h 7,0 mm
- External dimension: Æ 110 mm x h 26 mm

Temperature Control Series....

FB series is specially developed for optical benches while the **FM series** is properly suitable to work under microscope. Both FB and FM series are available in different versions with different temperature maxima: **FB150**, **FB250**, **FM150**, **FM220**. The hot-chamber is covered by PTFE for good thermal insulation.



← **X Series**
Xray spectrometer version



→ **X Series.**
Capillary samples thermostat for Xray diffraction (maximum 600°C)



← **P Series**
High temperature Hot Plate (maximum 600 °C) for microscope



→ **FB Series.**
Slim Version for optical bench