

# **Stoe Oven User's Guide**

#### Manufacturer

Stoe & Cie GmbH www.stoe.de

## Controller

Eurotherm 2416 www.eurotherm.com/products/controllers/2416.htm www.eurotherm-deutschland.de

## Turning On the Oven

- 1. Install the thermocouple.
- 2. Connect the power cable.
- 3. Connect the cooling water flexible tubes (chiller and oven).
- 4. Switch on the beamline cooling water and open the water valves.
- 5. Start the chiller. Check that the water flow on the controller is over 80 l/h.
- 6. Connect the serial cable from the X04SA-VME-ES2 crate to the *COMPUTER* connector on the controller.
- 7. Check that the EPICS display panel is **disabled** (see Figure 1).
- 8. Check that the *Heizung* switch is off.
- 9. Switch on the controller's main power switch.
- 10. Press and hold the *Run* button (see Figure 2) on the Eurotherm 2416 controller for about 3 secs. The *Run Light* should go out, if it was on.
- 11. Click *Enable* on the EPICS display. Wait until the display changes to the **enabled** mode (see Figure 3).
- 12. Click *Reset*.
- 13. Set a low temperature on the EPICS display. The Output Level should start to drop if the set temperature had previously been high. Wait for the level to drop below 5%, say.
- 14. Turn on the *Heizung* switch. The green light in the switch should come on.

- 15. Try some small temperature changes. Monitor the oven's behaviour with the EPICS strip tool.
- 16. Normal operation of the oven should now be possible.

### Turning Off the Oven

- 1. Set a low temperature on the EPICS display and wait for the *Output Level* to drop to zero.
- 2. Click *Disable* on the EPICS display. Wait until the display changes to the **disabled** mode.
- 3. Turn off the *Heizung* switch. The green light in the switch should go out.
- 4. Switch off the controller.
- 5. Switch off the chiller.
- 6. Close the beamline cooling water valves.

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Figure 1: EPICS Panel in Disabled Mode



Figure 2: Eurotherm 2416 Front Panel

| Stoe<br>Temperature:<br>Get point:        | (ES2)                               | 77.0 °C<br>77.0 °C              | 75.0                | Run S     | tatus: ()<br>Oucj | onolate<br>putevel;<br><u>Drawlo</u> | Loss<br>5%<br>Enable      |
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Figure 3: EPICS Panel in Enabled Mode