



# SICO-300 COLUMN OVEN

## DataApex Clarity Control

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## SISW SICO-300 CONTROL MODULE

This manual describes the setting of Science Instruments and Software **SICO-300 Column Oven**. The control module enables direct control and continuous monitoring of temperature. SICO-300 column oven communicates via computer USB interface.



Direct control means that the temperature setting and heating is fully controlled from Clarity environment. Measured temperature data may be permanently stored in the measured chromatograms.

The control is performed via the UNI Ruby control module provided by SISW.

## REQUIREMENTS

- Clarity installation package with appropriate control license (P/N A24 – LC Control)
- Free USB port in the PC
- USB A-B Cable
- SICO-300 USB Drivers Installed ([FTDI Drivers Download Page](#))

In you need the on-line assistance with data system configuration, ask Science Instruments and Support technical support for remote help.

- 1) Download TeamViewer Quick Support Application ([from SISW website](#))
- 2) Ask technical support ([servis@sisw.cz](mailto:servis@sisw.cz) or call +420 246 037 483)

## INSTALLATION PROCEDURE

Following chapter describes installation of SICO-300 USB drivers followed by Clarity system configuration.

### INSTALLING SICO-300

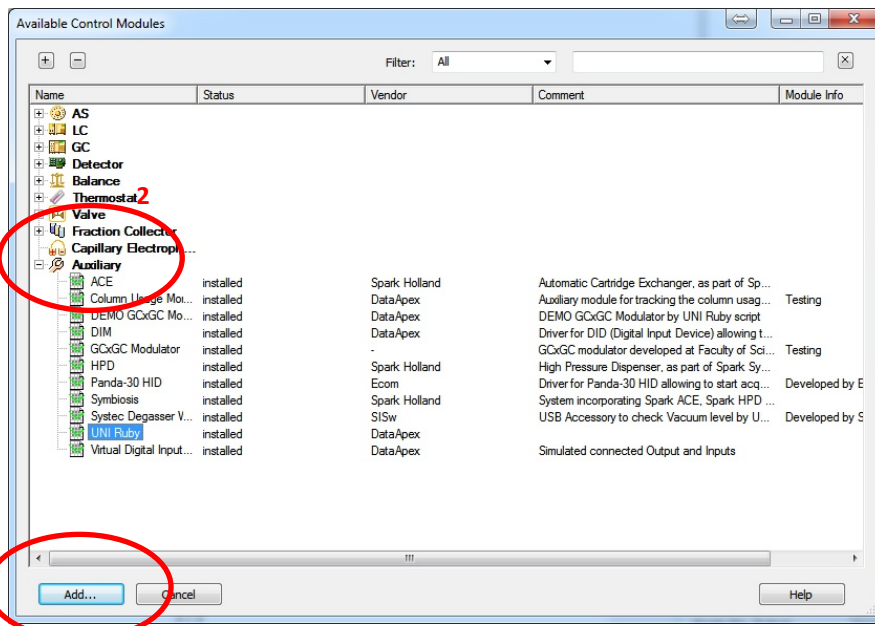
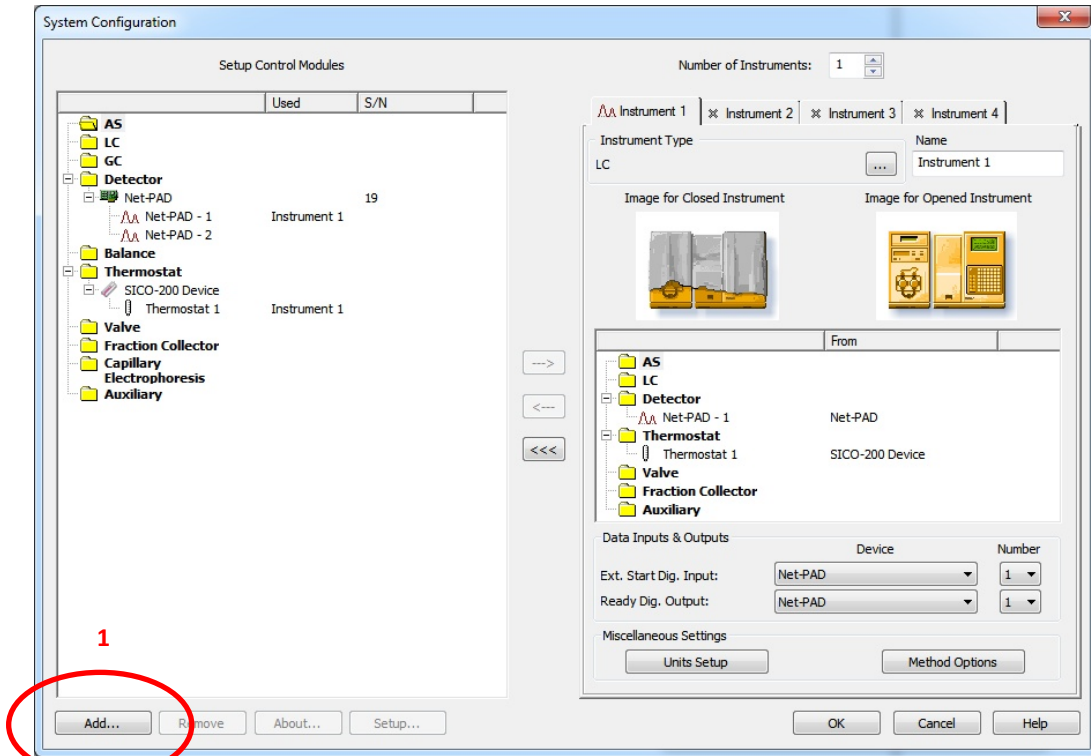
Installation of driver package should be performed prior to connection of device to the computer.

Now connect the SICO-300 to a free USB port on computer. The installation of USB drivers will be finalized within a minute.

Verify the correct installation of drivers in Windows Devices and Printer. "SICO-300 OVEN" should be listed.

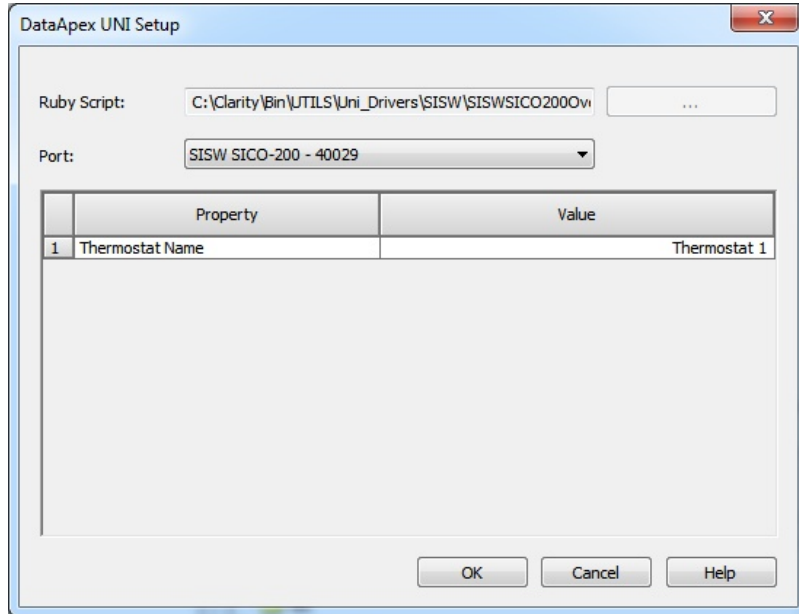
CLARITY CONFIGURATION

- Start the Clarity by clicking on its icon on the desktop.
- Invoke the *System Configuration* dialog from Clarity window using **System | Configuration** command.
- Click the **Add...** button (1) on System Configuration window to invoke the *Available Control Modules* dialog.

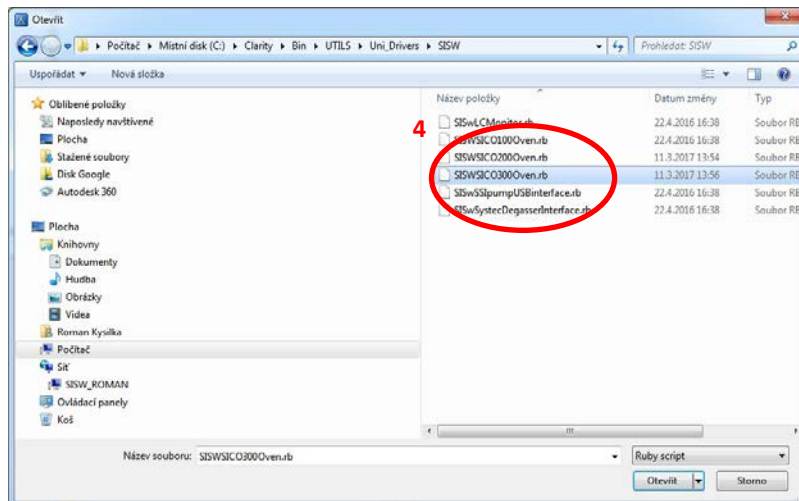


- Expand the Auxiliary
- Select "UNI Ruby" (2) and click the **Add** button (3).

- The DataApex UNI Setup dialog will appear.



- Set desired Ruby Script for SICO-300 Column Oven. The SISWSICO300Oven.rb script (4) can be found in the Clarity\Bin\UTILS\Uni\_Drivers\SISW\ folder (accessible through the  button) of the Clarity root directory. If not, download and copy the script to this folder.
- In the UNI Setup select the correct SICO-300 from *Port* drop down box (you can recognize it using the displayed serial number).
- You might want to change *Device Name* for the SICO-300 (Thermostat) device.



DataApex UNI Setup dialog contains several items which can be modified.

**RUBY SCRIPT**

*Ruby Scrip* shows actually selected UNI Ruby script for the SICO-300 device.

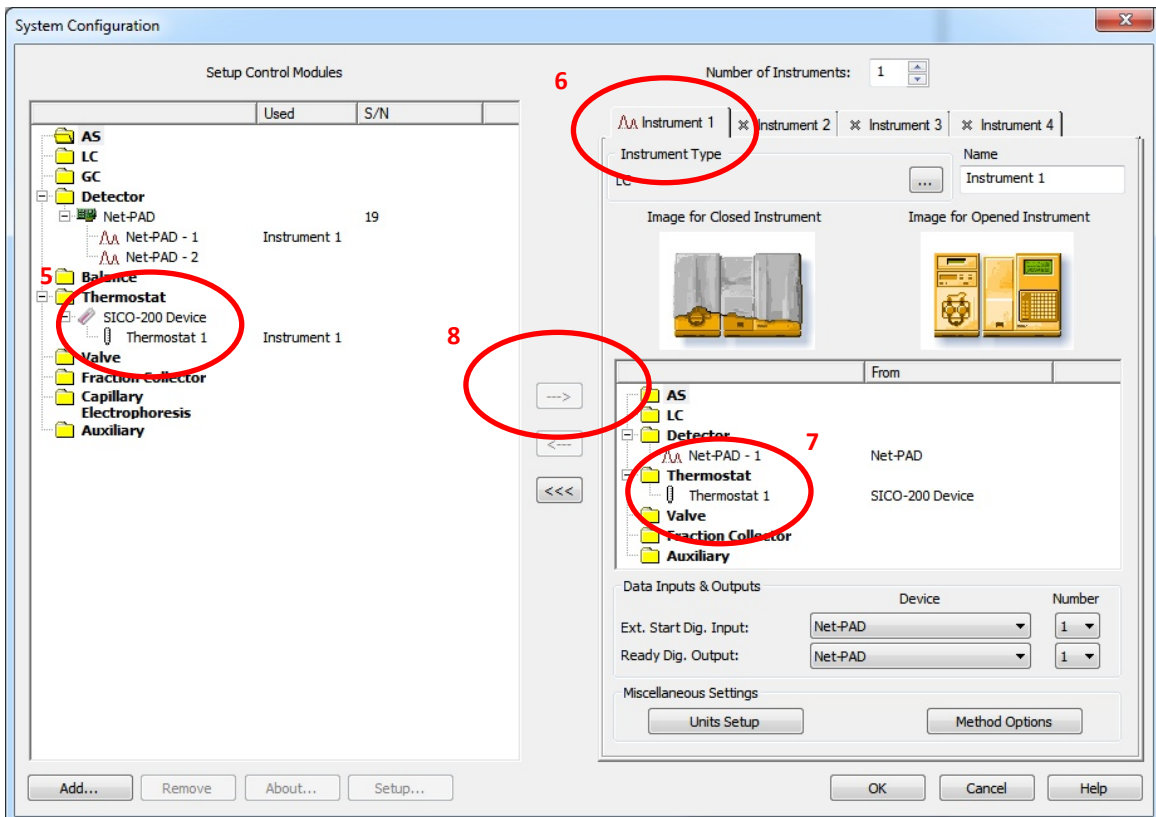
**PORT**

*Port* serves for selecting the SICO-300.

**INSTRUMENT NAME (THERMOSTAT NAME)**

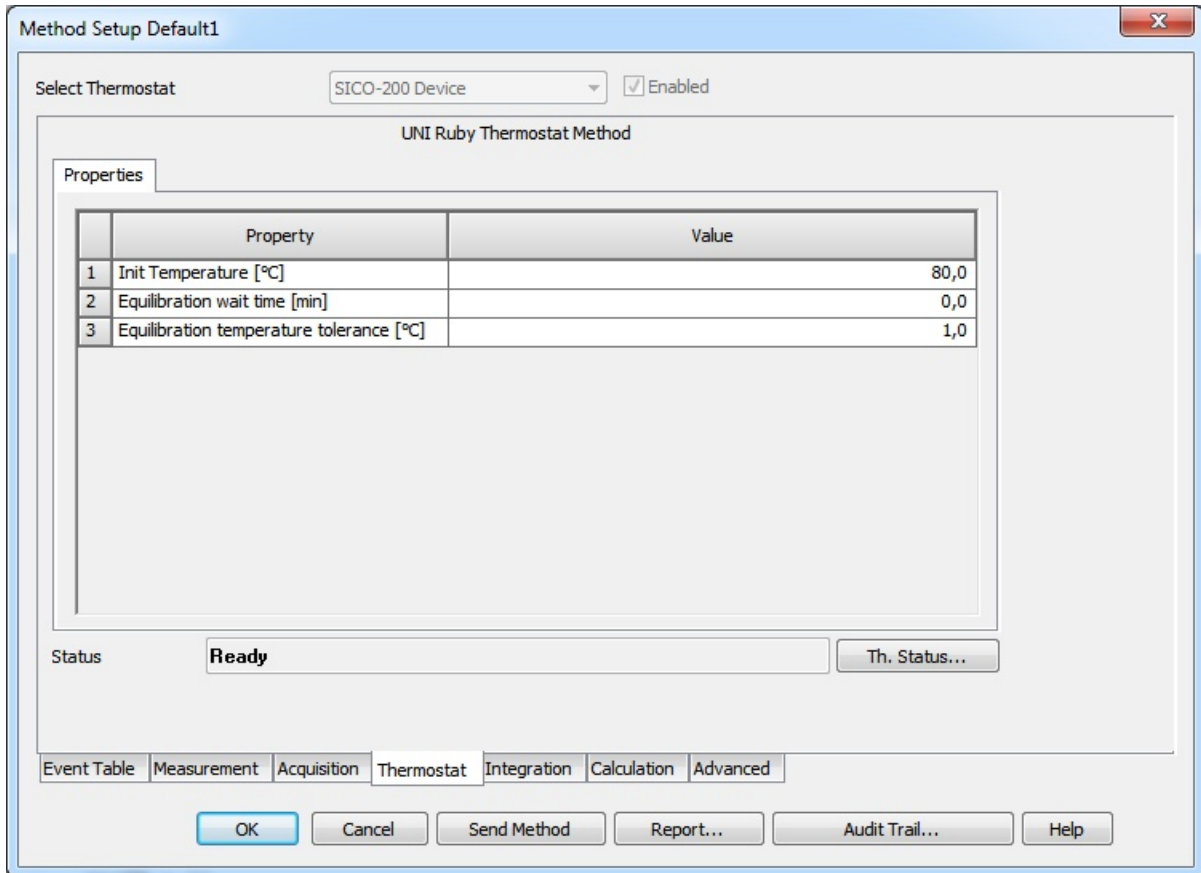
*Thermostat Name* allows customize the name of the instrument. This name (in the *Value* column) will be used throughout the Clarity station.

- SICO-300 Oven item (5) will appear in the *Thermostat* section of *Setup Control Modules* list.
- Select desired instrument tab (6).
- Drag the *SICO-300* item from the *Setup Control Modules* list on the left side to the list of desired modules on the right side (7). You can use the --> button (8) alternatively.



## USING THE CONTROL MODULE

Thermostat tab is created in the *Method Setup* dialog when SICO-300 is configured. The SICO-300 panel is also created in the *Device Monitor* window.

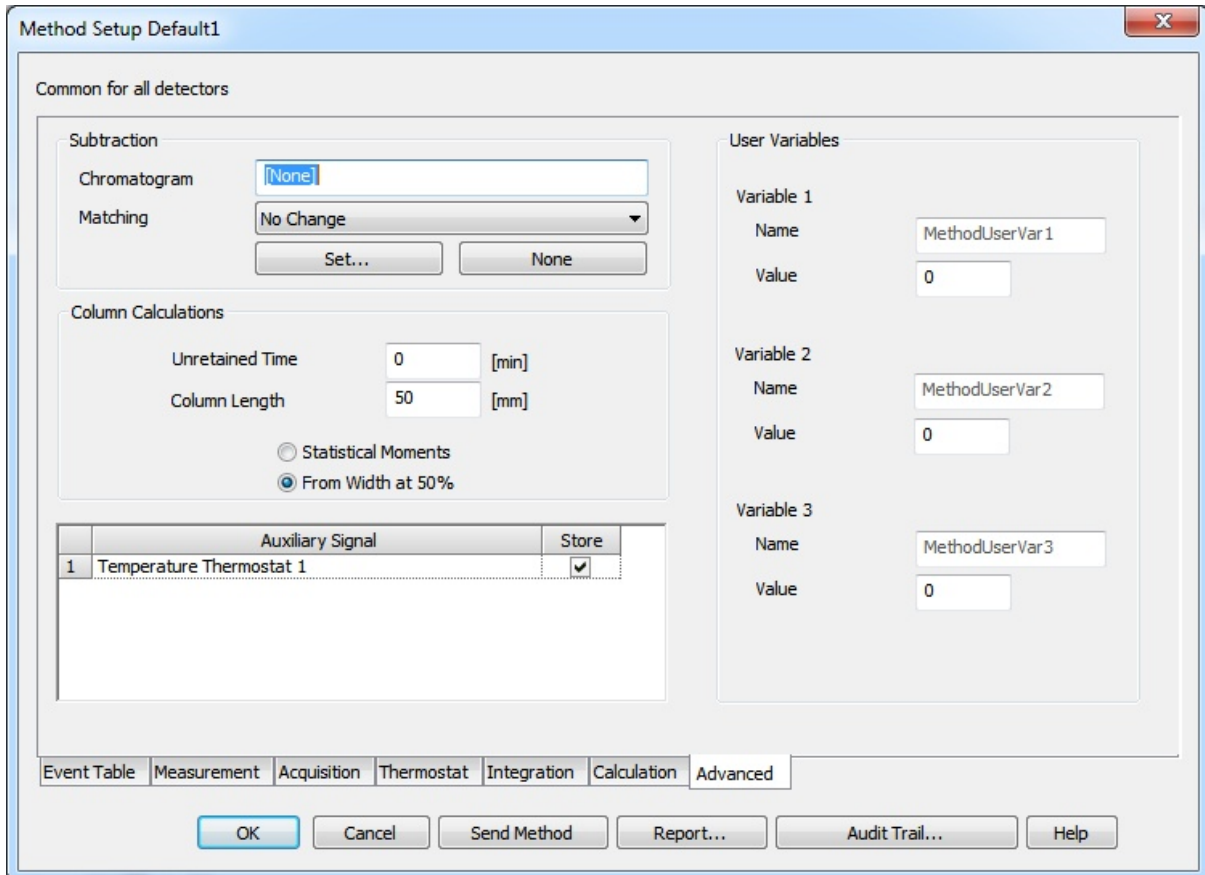


The desired temperature value should be entered into Thermostat Method Setup. The default Ready (Equilibration) temperature tolerance is pre-set to 1 °. You can modify it to different value. This setting has no influence to SICO-300 internal setting of „Ready“ interval (1 °C).



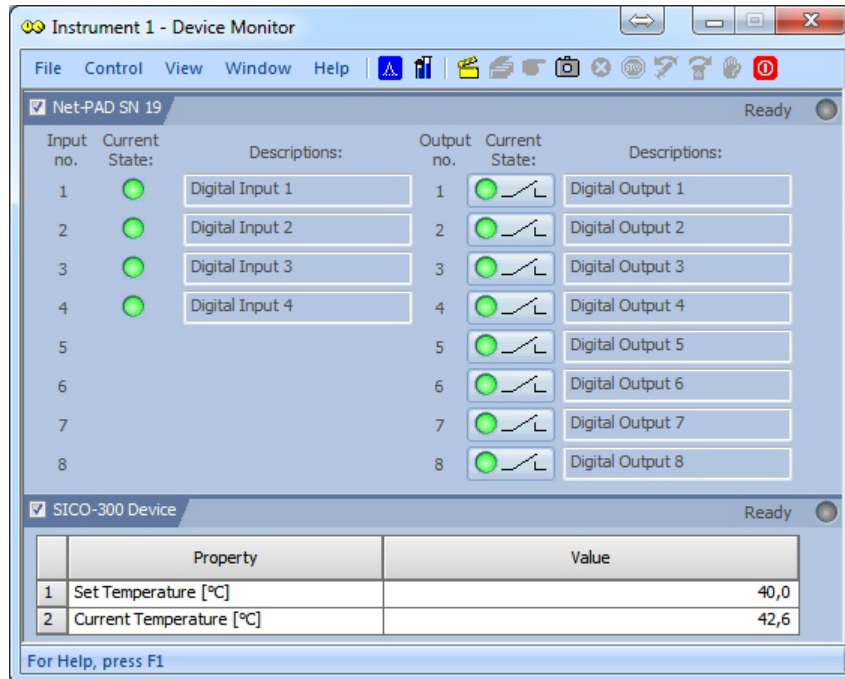
METHOD SETUP – ADVANCED

New auxiliary signal (Temperature) is now available on the *Advanced* tab of *Method Setup* dialog. Checking the *Store* checkbox enables displaying temperature signal in the *Data Acquisition* window. Temperature data will be stored in the measured chromatograms.



## DEVICE MONITOR

**Monitor|Device Monitor** command from the Instruments window invokes the *Device Monitor* window with actual SICO-300 status. The *Current Temperature* value is continuously updated.



## DATA ACQUISITION WINDOW

When enabled in the *Method Setup* dialog – *Advanced* tab, auxiliary signal Temperature is displayed in the *Data Acquisition* window. Axis range for temperature signal can be set in the *Axes Range* dialog. *Axes Range* dialog will be invoked by View|Set Axes Ranges... in the *Data Acquisition* window. When *Auto* checkbox is checked, the temperature signal axis range starts at a minimal value and enlarges according to the signal change. When unchecked, the axis range is fixed to the entered values.

**Axes Ranges**

Common Settings

	Fixed		Floating
	From	To	Range
Time Axis	0 min	5 min	10 min
Signal Axis	-10 mV	100 mV	5 mV

Individual Settings

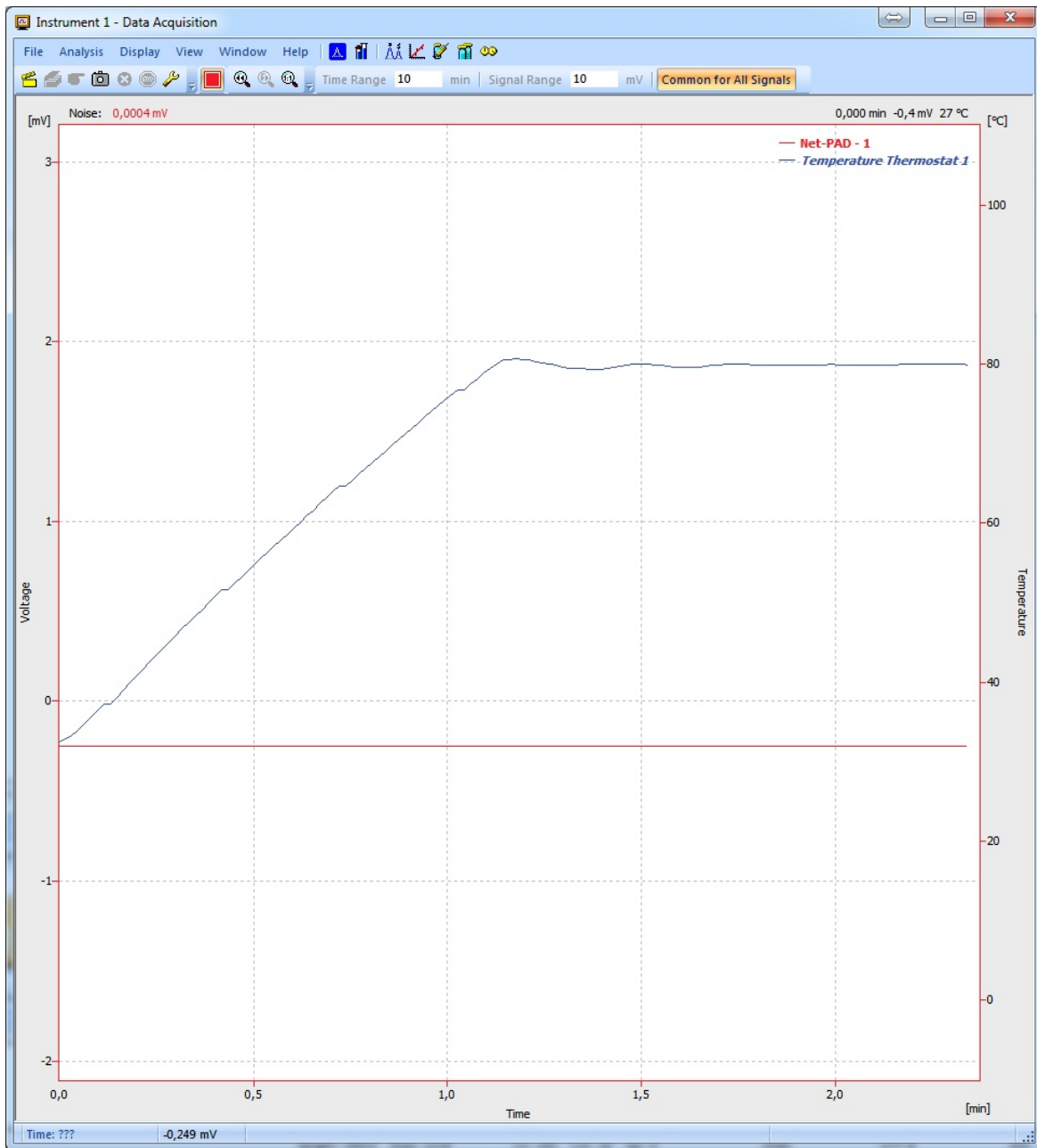
	Fixed		Floating
	From	To	Range
Net-PAD - 1	-10 mV	1000 mV	10 mV

Auxiliary Signals

	From	To	Auto
Temperature Thermostat 1	0 °C	100 °C	<input type="checkbox"/>

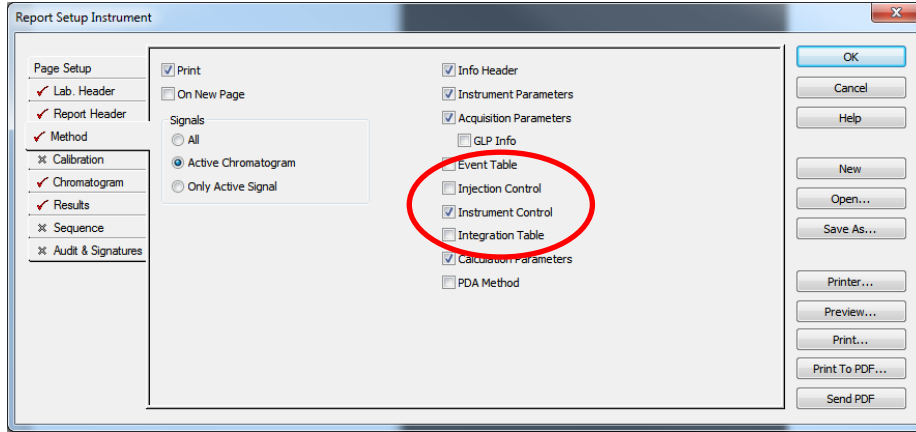
OK Cancel Help

Temperature value provided by SICO-300 is then displayed in the *Data Acquisition* window of the appropriate instrument.



## REPORT SETUP

The reporting of the SICO-300 temperature in the Method section of report can be enabled by checking the *Instrument Control* checkbox on the *Method* tab of the *Report Setup* dialog.



SICO-300 settings are then reported.

Autostop : None External Start : Start Only, Down  
 Detector 1 : Net-PAD - 1 Range1 : Bipolar, 1250, 12.5 Samp. per Sec.  
 Subtraction Chromatogram : (None) Matching : No Change

Auxiliary Signals	
Signal Name	Stored
Temperature Thermostat 1	<input checked="" type="checkbox"/>

Base : Not Used Calibration File : None Calculation : Uncal  
 Scale Factor : Not Used Units After Scaling : Not Used Uncal. Response : 0  
 Unretained Time : 0,00 min Column Length : 50,00 mm Column Calc. : From Width at 50% of ...  
 Result Table Reports : All Peaks Hide ISTD Peak : Enabled  
 Method User Variables:  
 MethodUserVar1 : 0 MethodUserVar2 : 0 MethodUserVar3 : 0