Lab - World

SCO TECH GERMANY

✓ Muffel
✓ Ashing / Melting
✓ Thermal Processing

Laboratory Furnaces

900 - 1300 °C

1. High temperature electric furnaces
1.1 Muffle furnaces with fiber-insulated chambers
1.2 Chamber furnaces with fiber-insulated chambers
1.3 Furnaces with ceramic chambers

2. Other thermal processing equipment
2.1 Ashing furnaces
2.2 Tube furnaces
2.3 Weighing furnaces
2.4 Shaft furnaces

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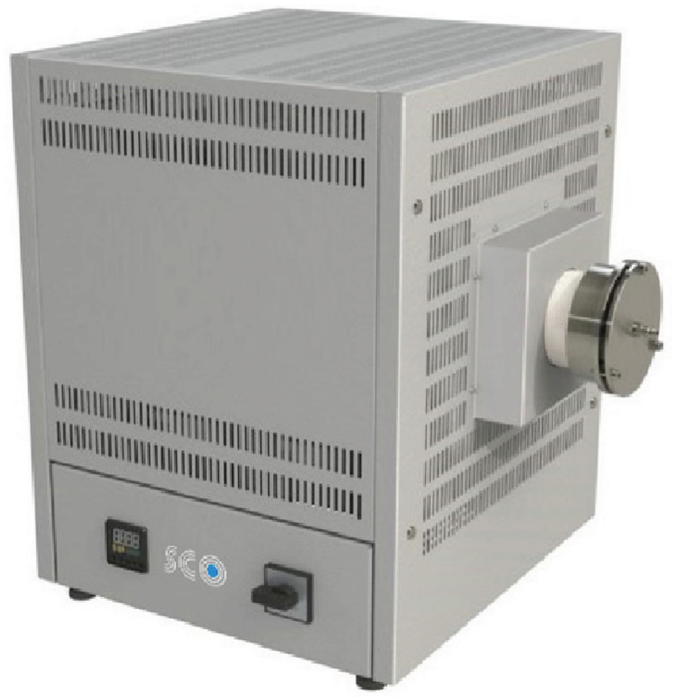
Other thermal processing equipment

Tube furnaces

Our high temperature horizontal tube furnaces designed by professional engineers and made from high quality materials, which are manufactured in our factory, such as heavy-duty metal parts and thermal insulation materials. The furnaces are excellent for using in scientific laboratories, educational institutions, medicine and industry for thermal processing up to a temperature of 1250 °C.



Basic model

- Ceramic tube chamber
- Control panel is placed in the underpart of the furnace
- Door safety interlock switch
- Equipped with non-programmable controller Omron E5CC
- Fast heating time due to low thermal mass construction
- Good stability and uniformity
- Low power consumption
- Outside casing – metal sheet, powder painted grey

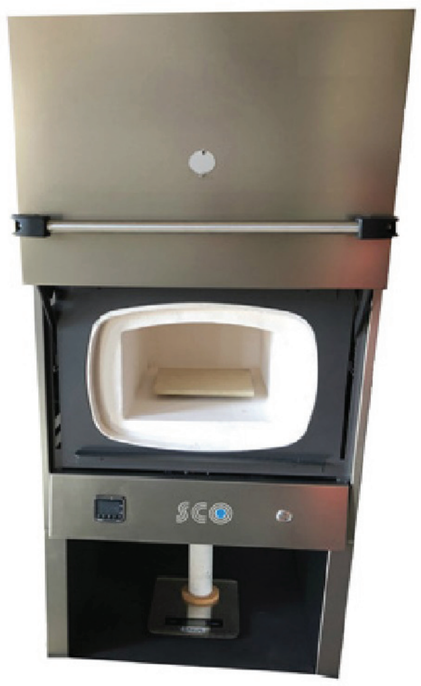
Options

- Additional ceramic bottom plates
- Buzzer
- Calibration of temperature measurement system
- Data communication/USB
- Data recorder • Digital timer
- Gas box up to 1100 °C
- Metal tray
- OTP (over temperature protection)
- Process observation window (ø 35 mm) up to 1100 °C
- Protective gas injection system (nitrogen or argon)
- Table for supporting the furnace

Model	Vol., l	Tmax, °C	Chamber dimensions, mm		Overall dimensions, mm			Power, kW	Voltage, V	Weight, kg
			Diameter	Depth	Width	Depth	Height			
LFT 35/1250	0.25	1250	Ø 35	200	675	545	565	3.7	230	38
LFT 50/1250	0.5	1250	Ø 50	200	675	545	565	3.7	230	38
LFT 70/1250	0.7	1250	Ø 70	200	675	545	565	3.7	230	38

Weighing furnaces

Our LFW 13/1100 LED is designed for combustion loss determination with the assistance of added balances, which weigh the materials before, during, and after the process. This could also inform about the completion of the process – as soon as the weight ceases to decrease. It is used in a variety of technical processes; you no longer need to open the furnace and take out the contents in order to find out the status of materials like, for example, sediment, sludge, soil, waste, or inorganic materials such as cement, lime, calcinated bauxite, and refractories.



Basic model

- Ceramic bottom plate mounted to a ceramic tube
- Control panel is placed in the underpart of the furnace
- Door opens upwards
- Door safety interlock switch
- Equipped with non-programmable controller Omron E5CC
- Fast heating time due to low thermal mass construction
- Good stability and uniformity
- Heating elements, embedded in a vacuum-formed fiber, are inside four walls of the chamber
- Low power consumption
- One-piece, high thermal efficiency, vacuum-formed ceramic fiber chamber
- Outside casing – metal sheet, powder painted grey

Options

- Additional ceramic bottom plates
- Balances • Buzzer
- Calibration of temperature measurement system
- Data communication/USB
- Data recorder • Digital timer
- Fan-assisted chimney for air extraction
- Gas box up to 1100 °C
- Metal tray
- OTP (over temperature protection)
- Process observation window (ø 35 mm) up to 1100
- Protective gas injection system (nitrogen or argon)
- Table for supporting the furnace

Model	Vol., l	Tmax, °C	Chamber dimensions, mm			Outside dimensions mm			Power, kW	Voltage, V	Weight, kg
			Width	Depth	Heigh	Width	Depth	Height			
LFW 13/1100	13	1100	220	335	170	500	690	877	1.8	230	55

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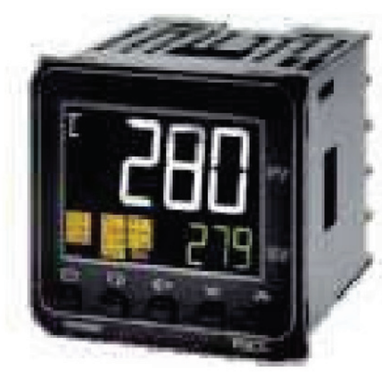
CE

Control devices

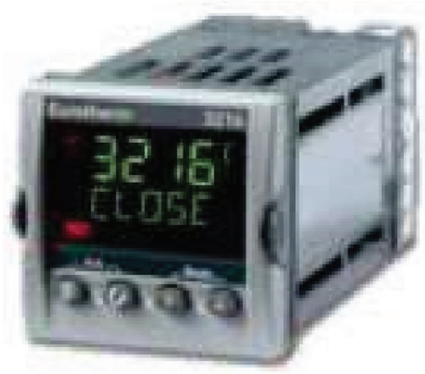
Temperature controllers

Our products are equipped with high-precision digital microprocessor Omron or Eurotherm temperature controllers fitted with self-tuning and manual PID settings. Temperature measurement is supported by thermocouple. The customer can select a basic or programmable temperature controller, which offers up to 32 programming segments (rate of temperature rise or decrease control, maintenance of preset temperature, automatic shutdown). A wide range of devices allows to select the most appropriate controller for your process.

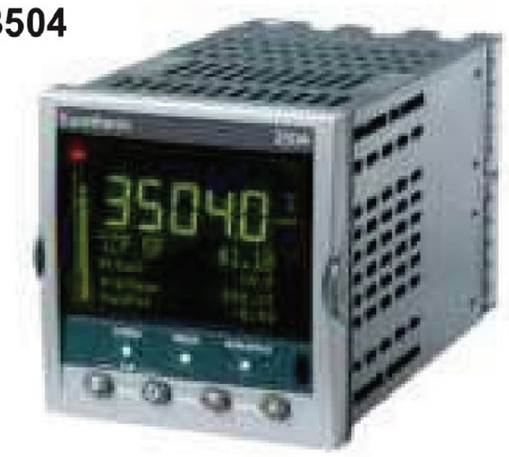
Omron E5CC



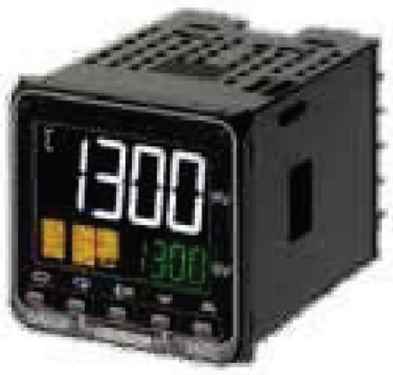
Eurotherm 3216



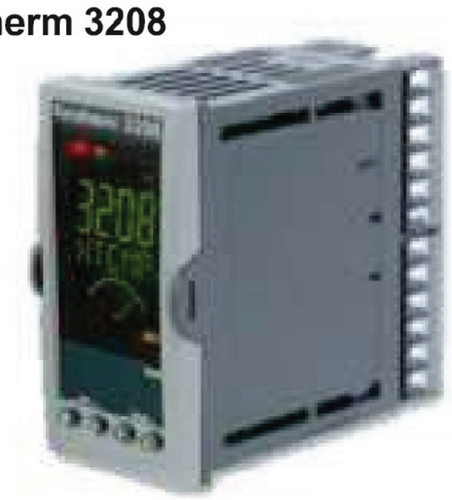
Eurotherm 3504



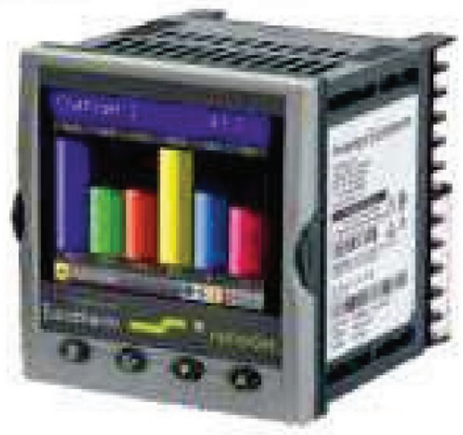
Omron E5CC -T



Eurotherm 3208



Eurotherm Nanodac



Model	Programmable	Number of programs	Number of steps in a program	Computer port	Control method		Control signal		
					PID	ON/OF	Type		Nubers of auxiliary outputs
							Relay	Voltage	
Omron E5CC	○	1	2	●	●	●	●	●	3
Omron E5CC-T	●	8	32	●	●	●	●	●	3
Eurotherm 3216	○	1	8	●	●	●	●	●	2
Eurotherm 3208	●	5	8	●	●	●	●	●	3
Eurotherm 3508	●	50	50	●	●	●	●	●	2
Eurotherm 3504	●	50	50	●	●	●	●	●	5
Eurotherm Nanodac	●	100	25	●	●	●	●	●	5
Eurotherm E+PLC100 *	●	-	-	●	●	●	●	●	4

* PID controller, recorder and PLC in one – designed for elaborate control algorythms.

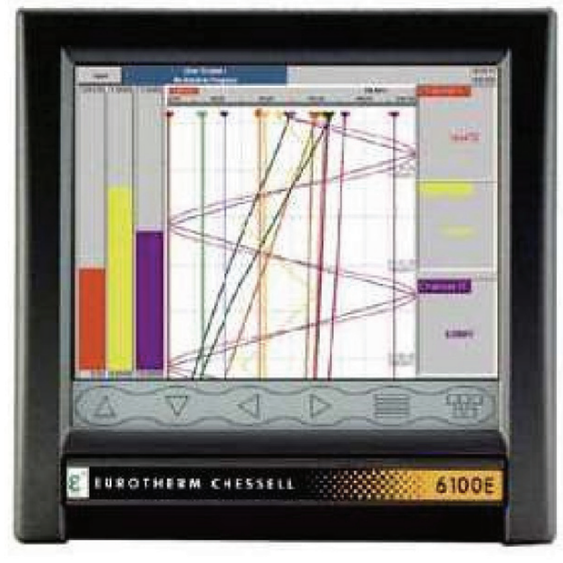
Control devices

Eurotherm data recorders

Eurotherm data recorders are ideal for basic visualisation and recording requirements. They have a full colour display and utilise touch screen technology for clear and intuitive configuration and operation. Also, support of a USB part comes as standard to enable the use of a mouse, keyboard or a bar code scanner. Data can be moved manually or automatically archived to multiple locations: removable media, network servers or the Eurotherm Review database on a PC. These recorders can easily be integrated into a larger system and data files can be transferred across the network.

Main features:

- Advanced data security and archiving
- 5.5", 1/4 VGA, Color touch screen display
- Designed for network and stand alone use
- FTP client and server
- Live, remote data viewing and configuration
- 125ms parallel sampling.

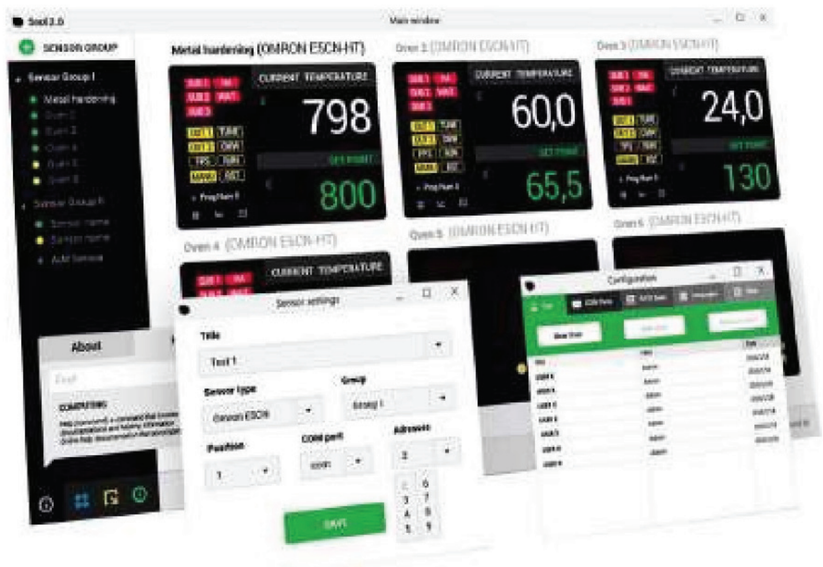


Computer software SNOL V2.0

SNOL V2.0 is a computer software for data recording, viewing and configuring the temperature controller running your thermal treatment process. The software is designed for Windows operating system. Computer software allows to simply run, review and display charts on thermal process temperatures and other settings.

Main features:

- Up to 128 controllers connection
- Supports up to 4 computer ports
- Control of device parameters and programs via computer
- Live, remote data viewing and configuration
- Graphical representation of the data
- Data export to Microsoft Excel format
- Ability to observe the process in a distance by internet
- Connections RS-232 and RS-485.
- Multiple language entry (ability to install necessary language).



Timer Galaxy

The main function of the timer is remote start of the furnace. The timer works in real-time. During the operation, the output contact of the timer is operated according to the settings of the dial-switches. However, it is possible to manually override this operation for each channel individually at all times.

Main features:

- Start and stop 24 hour / 7 day oven operation
- Stores up to 20 programs with up to 10 ON and 10 OFF events/day
- Manual 3-way override
- 16 Amp, 277 VAC resistive SPDT output contacts
- Reserve carryover: 3 years (Non-replaceable battery)
- Manual Daylight Time Changeover
- 3 languages option
- Available only with Omron devices.