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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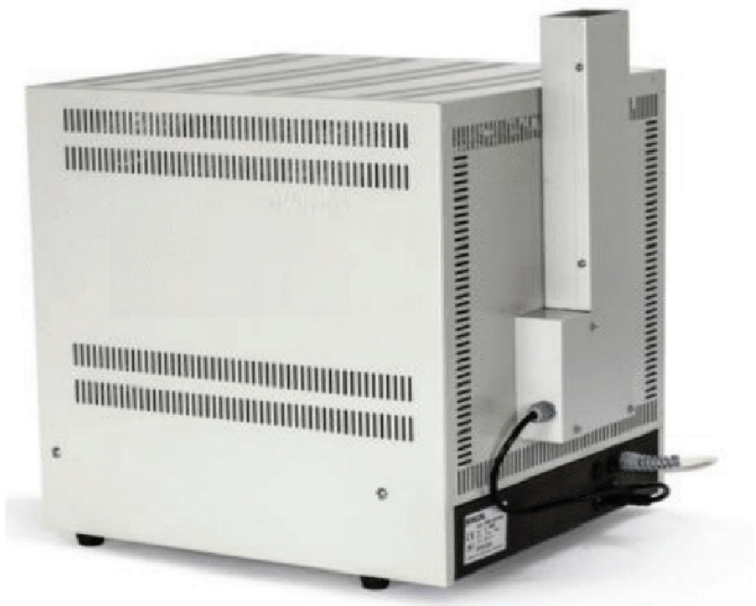
SCO TECH GERMANY

Other thermal processing equipment

Ashing furnaces

Our ashing furnaces are designed by a group of professional engineers and made from high quality materials, which are manufactured in our factory, such as heavy-duty metal parts and thermal insulation materials. Fan-assisted chimney permits to eliminate smokes from the chamber during the process. Ashing process is possible with several types of furnaces: muffle furnaces, fiber-insulated chamber furnaces and ceramic chamber furnaces. This range of furnaces is suitable for ashing and burn off processes in temperatures of 900-1300 °C.



Basic model

- Chamber made of vacuum formed ceramic fiber / fiber thermal insulation plates / solid ceramic
- Continuous air change in the chamber
- Control panel is placed in the underpart of the furnace
- Door safety interlock switch
- Equipped with non-programmable controller Omron E5CC
- Fan-assisted chimney for air extraction
- 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

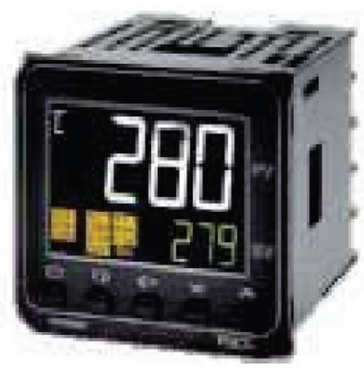
Model	Vol., l	Tmax, °C	Chamber dimensions, mm			Outside dimensions, mm			Power, kW	Voltage, V	Weight, kg
			Width	Depth	Heigh	Width	Depth	Height			
Up to 900 °C											
LFA 4/900	4	900	120	295	110	440	605	500	3.7	230	55
LFA 7/900	7.2	900	195	295	120	445	640	525	3.3	230	50
LFA 12/900	12	900	215	295	195	640	795	820	4.5	230	120
LFA 12/900	15	900	215	400	195	640	865	820	6.0	400	130
Up to 1100 °C											
LFA 3/1100	3	1100	120	200	105	345	520	430	1.7	230	17
LFA 4/1100	4	1100	120	295	110	440	605	500	3.7	230	41
LFA 7/1100	7.2	1100	195	295	120	445	640	525	3.3	230	50
LFA 8/1100	8.2	1100	195	310	135	445	710	495	1.8	230	28
LFA 8/1100s	8.2	1100	195	310	135	440	580	495	1.8	230	28
LFA 12/1100	12	1100	215	295	195	640	805	820	4.5	230	134
LFA 13/1100	13	1100	220	335	170	505	735	555	1.8	230	38
LFA 15/1100	15	1100	215	295	195	640	865	820	6.0	400	130
LFA 22/1100	22	1100	280	500	160	605	905	620	3.0	230	59
LFA 30/1100	30	1100	300	405	275	645	920	835	3.4	230	96
LFA 39/1100	39	1100	320	495	230	655	940	740	6.0	400	75
Up to 1200 °C											
LFA 4/1200	4	1200	120	295	110	440	605	500	3.7	230	55
LFA 7/1200	7.2	1200	195	295	120	645	760	705	3.5	230	50
LFA 12/1200	12	1300	215	295	195	640	740	820	4.5	230	120
LFA 15/1200	15	1300	215	400	195	640	865	820	6.0	400	130
Up to 1300 °C											
LFA 4/1300	4	1300	120	295	110	440	605	500	3.7	230	55
LFA 6/1300	6.7	1300	145	310	135	445	625	525	2.4	230	35
LFA 7/1300	7.2	1300	195	295	120	645	760	705	3.5	230	50
LFA 12/1300	12	1300	215	295	195	640	765	820	4.5	230	120
LFA 15/1300	15	1300	215	400	195	640	865	820	6.0	400	130
LFA 30/1300	30	1300	200	425	290	645	920	835	4.6	230	120

Control devices

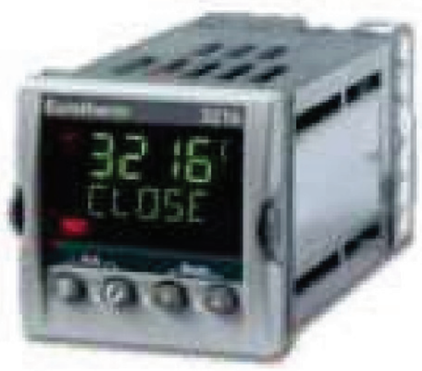
Temperature controllers

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.

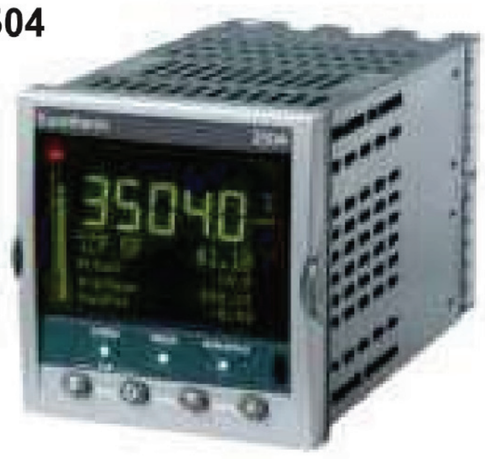
Omron E5CC



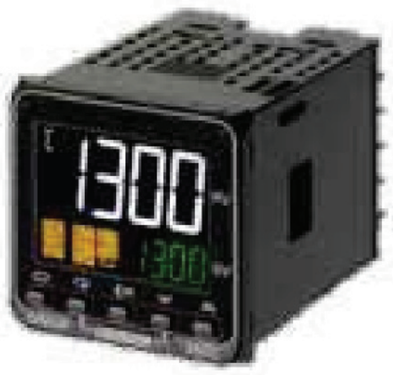
Eurotherm 3216



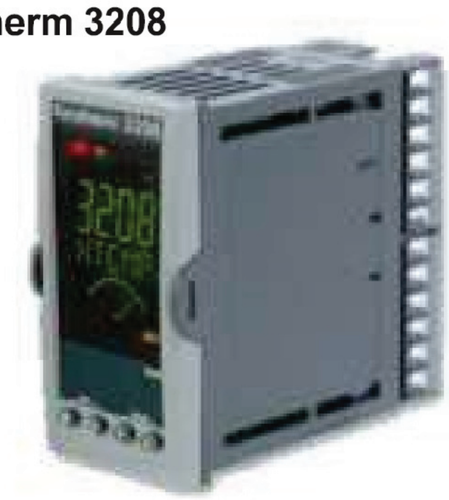
Eurotherm 3504



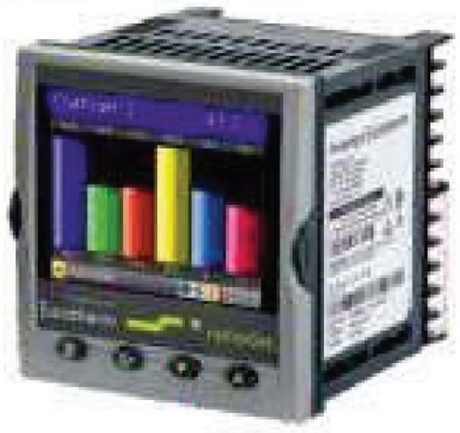
Omron E5CC -T



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

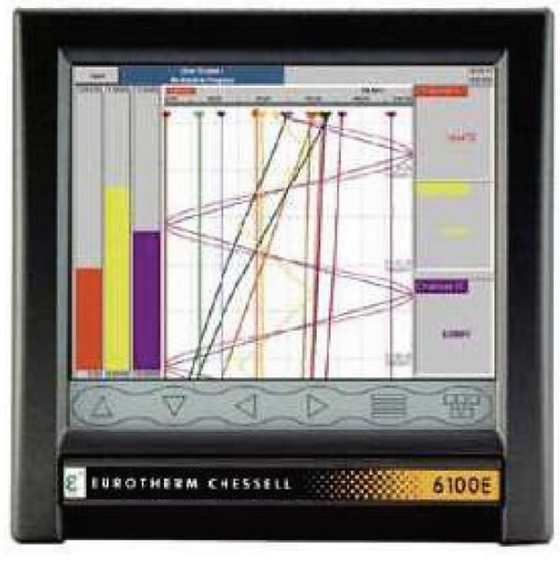
* PID controller, recorder and PLC in one – designed for elaborate control algorythms.

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.

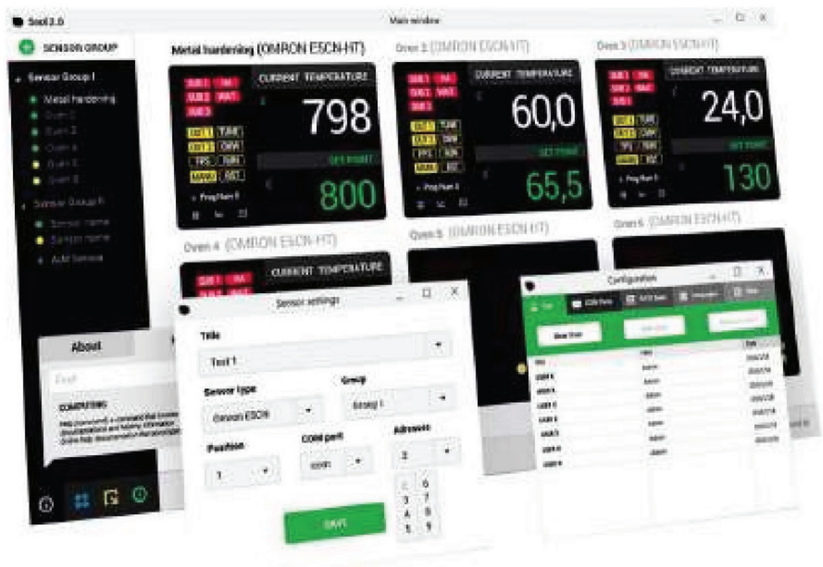


Computer software SNOL V2.0

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.