



# Kiln Control Units



## Kiln Control Units TC



Name	TC 304	TC 504	TC 60-8	TC 507
<b>Applications</b>	ceramics laboratory	ceramics laboratory heat treatment	ceramics laboratory heat treatment fusing	ceramics laboratory heat treatment fusing
<b>Description</b>	Clearly structured control unit - very easy to operate; for workshop, school and hobby applications.	High-performance control unit with highest safety standards and convenient operating layout. Equipped with 2- or 3-zone control. Suitable for demanding workshop or laboratory applications.	High-performance compact control unit with flexible setting of programs with up to 8 consecutive segments. Highest degree of safety and reliability for applications in glass, metal and ceramic processing.	High-performance 30-ramp control unit with highest safety standards and many special features. Equipped with 2- or 3-zone control. Suitable for demanding workshop and laboratory applications, as well as glass fusing.
<b>Technical Data</b>				
Range of adjustment	0 – 1320°C in 1°C steps	0 – 1320°C in 1°C steps	0 – 1320°C in 1°C steps	0 – 1320°C in 1°C steps
LED display Desired Value	4 digits	6 digits	4 digits	6 digits
LED display Actual Temp.	4 digits	6 digits	4 digits	6 digits
Units display	•	•	–	•
Firing stage display	•	•	•	•
Event control	–	possible configurations see price list	–	possible configurations see price list
Zone control	–		–	
Error warning	•	•	•	•
Safety locking	–	•	–	•
Electricity consumpt. display	–	•	–	•
Precaution against overheat.	•	•	•	•
Optional printer port	–	•	–	•
Programs	5 free	10 free	15 free	80 free
Ramps	2	2	8	30
Warming up time	0:00 – 9:59 h	0:00 – 99:59 h	0:00 – 10:00 h	0:00 – 99:59 h
1. Range of temperature rise	1 – 999°C/h and Full	1 – 999°C/h	20 – 1320°C/h and Full	1 – 999°C/h
Switching point	20 – 1320°C	20 – 1320°C	20 – 1320°C	20 – 1320°C
1. Soaking time	–	0:00 – 99:59 h	0:01 – 10:00 h	0:00 – 99:59 h
2. Range of temperature rise	1 – 999°C/h	1 – 999°C/h	20 – 1320°C/h	1 – 999°C/h
(2.) Soaking time	0:00 – 9:59 h and Full	0:00 – 99:59 h	0:00 – 10:00 h and Full	0:00 – 99:59 h
Cooling down speed	1 – 999°C/h	1 – 999°C/h	20 – 1320°C/h	1 – 999°C/h
Size (w x l x h)	110 x 220 x 60	110 x 220 x 60	65 x 110 x 60	110 x 220 x 60
Weight	1100 g	1100 g	700 g	1100 g



Name	TR 704	TR 704 C	TR 704 C-USB
<b>Technical Data</b>	S7-300 BlueMode	S7-300 Color	S7-300 Color USB
Display size	5,7"	5,7"	5,7"
Display type	Touch Panel	Touch Panel	Touch Panel
Grey scale display	•	–	–
Colour display	–	•	•
Range of adjust. 0°C – 1400°C	•	•	•
Error diagnosis	•	•	•
Entering of starting point in real time	•	•	•
Number of controlled zones	3	3	3
Firing programs	10	10	10
Number of firing segments	25	25	25
Additional switching outputs for ventilation, flaps, etc.	2	2	2
Output menue Actual Values	•	•	•
Output menue Firing Process	•	•	•
Status display flaps / ventilation	•	•	•
Data archiving on USB stick	–	–	•

### Kiln Control Unit TR 704

We have developed this kiln controller based on the **Siemens S7-300 SPS** (system-programmable control); it constitutes a process control which satisfies all requirements arising in relation to our heat treatment kilns.

We have already been successfully applying this thermo process controller as standard control unit in our Electric Truck Kilns.

The control unit is operated entirely over a touch panel display which is set into the door of the control cabinet.

With the help of this display you can enter all process values and retrieve, edit or start all saved programs.

When the control unit is carrying out a firing process, the user can check all relevant process data with one glance on the Actual Value pages.

Apart from the absolutely precise controlling of the firing process you can also address any given function related to the firing process, as for example the direct control of cooling systems, exhaust air flaps, doors and trucks.

And of course you can also generate output signals for further operating steps related to the firing process.

In order to make using this control unit as comfortable as possible, you may also opt for a 5.7" colour display instead of the standard grey scale display.

A further option is the archiving of firing data via a USB connection. This enables you to store all relevant firing data on a USB stick and download them safely and conveniently onto your PC, e.g. for editing them in MS-Excel.

This option also includes a colour display as a standard feature. It goes without saying that this kiln control can be configured for almost any application in heat treatment.

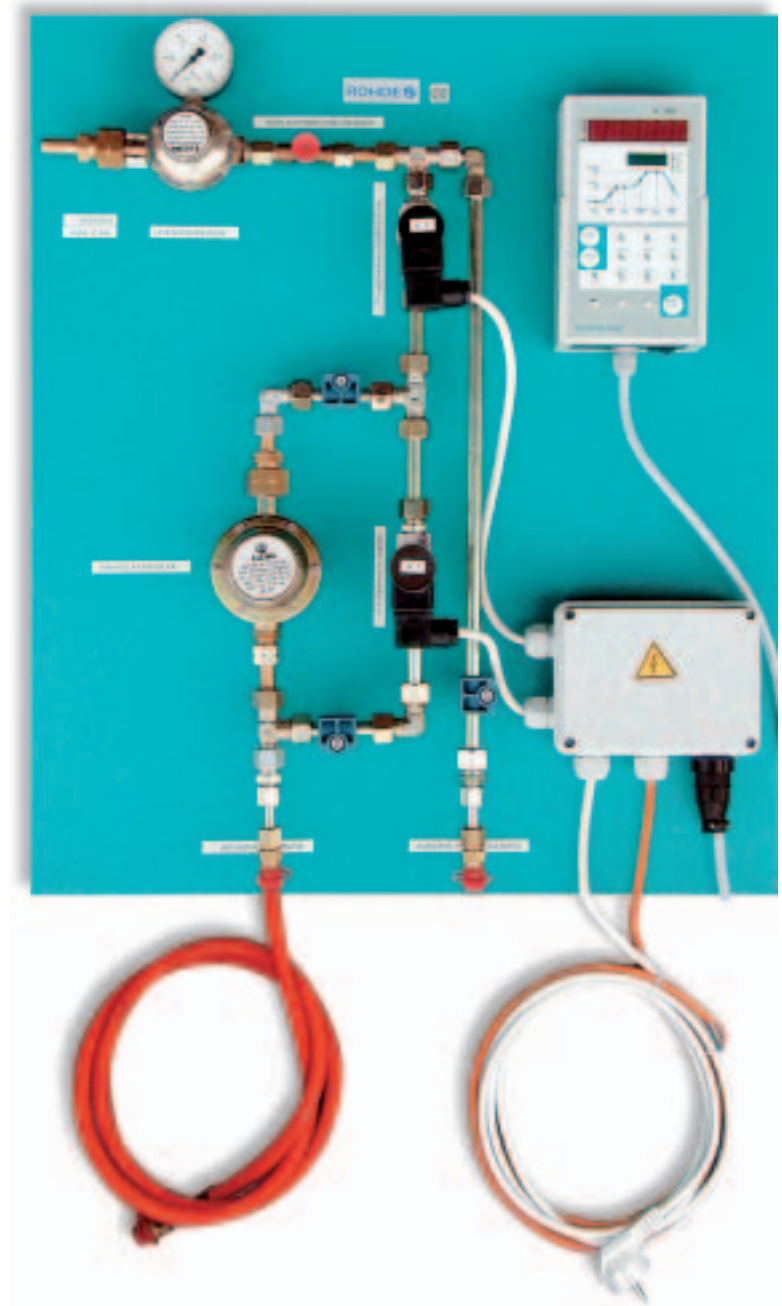
**If you are looking for the perfect solution, please do not hesitate to contact us. We will be happy to offer our suggestions.**

With this gas control and the control unit TC 504 (optional TC 507) you can control and monitor the desired firing curve for your kiln, which facilitates achieving reproducible results.

The continuous setting of minimal and maximal performance ensures an optimal adjustment to the individual kiln and to the programmed firing curve.

#### Points in favour of gas controller:

- Firing curve can be programmed freely
- Burner switches off, when program reaches "end"
- Safety gas valve for automatic switch-off after error warning of controller
- Control valve for switching from high to low load
- Continuous setting of high and low load
- Hose breakage protection
- Manual controlling possible, if electricity breaks down
- Stable unit for wall mounting
- Thermocouple Pt/PtRh 10%
- all gas fittings comply with the DVGW norm
- Gas connection with 12 mm Ermeto thread
- Burner connection with quick lock
- designed for max. 80 kW
- equipment for natural gas possible



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