

Features

The program controller C 8:

- is an electronic temperature program controller
- operates together with a power switchgear
- can be operated with fixed programs (see table below) or with manually entered programs

The program controller S 8:

- is an electronic temperature program controller
- is equipped with an electronic contactor relay which has a switching capacity of 3,5 kW (single-phase) and has no separate power switchgear
- can be operated with fixed programs (see table below) or with manually entered programs

The program controllers C 8 and S 8 differ in their handling only in the way they are switched on:

- C 8 is switched on by means of a key-operated switch
- S 8 is switched on by means of a rocker switch

Safety

The C 8/S 8 guarantees safety by:

- double output module
- multiple storing of entered values, thus continuous control
- automatic disconnection in the event of faults
- interruption of program in the event of power failure >0.5 s (diodes do not light up; furnace temperature is indicated when power has returned)
- automatic fault indication



Fault indications:

- F1: Thermocouple is short-circuited or furnace does not heat with nominal power* (temperature increase between T1 and T2 is less than 4°C/h)
- F2: Furnace does not heat with nominal power* (Firing time between T1 and T2 is longer than 18 hours)
- F3: Thermocouple is interrupted*
- F4: Thermocouple is reversed*
- F5: Entered value for T1 or T2 is higher than permissible**
- F6: Controller is defect*

Fault clearance:

- * Call service technician
- ** Enter lower temperature value

Press button	Response	Remark																																			
<p>Switching on the controller</p> <p>Controller C 8 by means of key-operated switch</p> <p>Controller S 8 by means of rocker switch</p>	<p>Furnace temperature appears on display</p>																																				
<p>Starting a fixed program</p> <p>1. Enter number of program (see Remark; in this case program 8)</p> <p>2. Start program</p>	<p>P=8 appears on display</p> <p>Furnace temperature appears on display</p>	<table border="1"> <thead> <tr> <th>Program</th> <th>time (min)</th> <th>T 1 (°C)</th> <th>T 2 (°C)</th> <th>time 2 (min)</th> </tr> </thead> <tbody> <tr><td>4</td><td>90</td><td>250</td><td>1050</td><td>30</td></tr> <tr><td>5</td><td>90</td><td>250</td><td>1150</td><td>30</td></tr> <tr><td>6</td><td>90</td><td>250</td><td>1250</td><td>30</td></tr> <tr><td>7</td><td>300</td><td>500</td><td>850</td><td>15</td></tr> <tr><td>8</td><td>300</td><td>500</td><td>950</td><td>15</td></tr> <tr><td>9</td><td>300</td><td>500</td><td>1050</td><td>20</td></tr> </tbody> </table>	Program	time (min)	T 1 (°C)	T 2 (°C)	time 2 (min)	4	90	250	1050	30	5	90	250	1150	30	6	90	250	1250	30	7	300	500	850	15	8	300	500	950	15	9	300	500	1050	20
Program	time (min)	T 1 (°C)	T 2 (°C)	time 2 (min)																																	
4	90	250	1050	30																																	
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6	90	250	1250	30																																	
7	300	500	850	15																																	
8	300	500	950	15																																	
9	300	500	1050	20																																	
<p>Switching on the furnace automatically</p> <p>Enter waiting time (in this case the furnace will switch on automatically after 120 minutes)</p>	<p>0' appears on display relevant diodes flashes.</p> <p>120' appears on display relevant diode flashes</p> <p>120' appears on display Diode lights up</p>	<p>First start the program, then enter waiting time</p>																																			

	Press button	Response	Remarks
Entering/starting a program manually 1. Switch on program controller C8/S8 2. Enter time required for time 1 (in this case 70 minutes) 3. Enter required temperature T1 (in this case 400°C) 4. Enter required temperature T2 (in this case 800°C) 5. Enter hold time, time 2 (in this case 20 minutes) 6. Start program	 1 time 1 7 0 T1 4 0 0 T2 8 0 0 time 2 2 0 start	Furnace temperature appears on display 0000' appears on display. Relevant diode flashes 400°C appears on display. Relevant diode flashes 800°C appears on display. Relevant diode flashes 0000' appears on display. Relevant diode flashes Temperature of heating chamber appears on display	The 5 LEDs of the time axis indicate the program section running. The hold time, time 2, can be programmed up to 9998 minutes (approx. 166 hours). 9999 minutes equals an infinite hold time. The program controller C8/S8 switches off the furnace when time 2 has expired. The 5th LED of the time axis lights up during the subsequent cooling phase. The temperature of the furnace chamber is indicated until the key-operated switch is turned to 0.
Checking entered values Check temperature value (in this case T2) Check time value (in this case time 2) After checking, press start button	T2 time 2 start	Programmed temperature value appears on display Before start: programmed value is indicated After start: remaining time is indicated	After each checking procedure, the start button must be pressed to continue the program.
Altering entered values Alter temperature value (in this case T2 to 950°C)	T2 9 5 0 start	Old value T2 is indicated, then 950°C appears on display	After each alteration, the start button must be pressed to continue the program.
Locking a program which is running			To cancel locking: switch off controller.