



CTR25 is a 3-phase controller intended for time-proportional control of electric heaters, radiators, etc. The controller is capable of controlling both D- and Y-connected loads.

- Built-in temperature controller with 0...10V signal for control of output unit
- Automatic adaptation to connected 230 or 400V supply voltage
- Can be controlled with external 0...10V control signal
- For DIN-rail mounting
- Settable min. and max. limitation
- Adjustable cycle time

CTR25 is a 3-phase triac controller for control of electric heaters. The device is connected in series between the power supply and an electric heater or radiator.

CTR25 has a temperature controller with inputs for sensors placed, for instance, in a supply air duct or room. It can also be controlled using an external control signal.

The controller utilises stepless, time-proportional control. I.e.: the ratio between on-time and off-time is varied in order to fit the present heating requirement.

Example: A controller output of 50 % will equal an on-time of 30 s and an off-time of 30 s if the cycle time is 60 s. The cycle time is adjustable 6...60 s.

Triac control is considerably more accurate than on/off control, meaning increased heating comfort and lowered energy costs.

CTR25 has a built-in function for automatically adapting the control mode as needed:

Supply air control

For rapid temperature changes, the supply air controller will function as a PI-controller. The P-band will be 20K with an I-time of 6 minutes.

Room temperature control

For slower temperature changes, the room controller will function as a P-controller. The P-band will be 1.5K. The supply air controller will retain the same settings as before. During room temperature control, the supply air temperature can be provided with a min. or max. limitation.

Control of larger loads

In cases where the electric heater is larger than the capacity of CTR25, the load can be divided and controlled by use of a SC4 or SC6 step controller in combination with the CTR25. See also product sheet for CTR40.

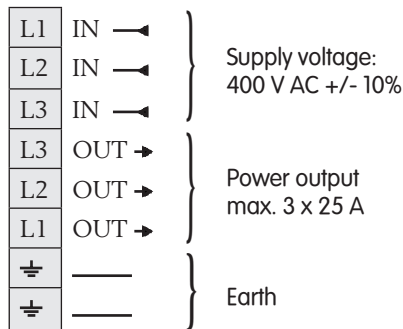
TECHNICAL DATA

Power supply:	3-phase, 210...255 / 380...415 V AC. Automatic adaptation
Power output:	Max. 25 A, min. 3 A/phase. At 400 V, max. effect will be 17 kW
Safety function:	The feed to the CTR should be interlocked with a high temp. limit switch
Power emission:	50 W at full load
Cycle time:	Factory setting 60 sec. Adjustable 6...60 sec
Indicator:	Red LED, lit when power is pulsed to heater
Ambient temperature, operation:	0...40°C
Ambient humidity:	Max 90 % RH
Storage temperature:	-40...+50°C
Control unit:	
Sensor inputs	Main and min./max. sensor. Min./max. sensor: working range 0...60°C
Main setpoint	0...30°C. Other areas dependant on connected sensor. Includes external setpoint (e.g. SAP-NTC15-01-1)
Control parameters, primary control:	Rapid control circuits: PI-function with a P-band of 20K and I-time of 6 minutes. Slower control circuits: P-function with a P-band of 1.5 K
Setpoint, min. limitation:	0...30°C
Setpoint, max. limitation:	20...60°C
Control parameters, limitation:	PI-function with a P-band of 20K and an I-time of 6 minutes
Output signal, controller:	0...10 V. Connected to control input of output unit by wire strap (terminal 7-9)
Control input:	For external control signal 0...10 V
Max. ambient temperatur:	40°
CE	Low Voltage Directive (LVD) standards: This product conforms to the requirements of the European Low Voltage Directive (LVD) 2006/95/EC through product standard EN 60730-1.
	EMC emissions & immunity standards: This product conforms to the requirements of the EMC Directive 2004/108/EC through product standards EN 61000-6-1 and EN 61000-6-3.
	RoHS: This product conforms with the Directive 2011/65/EU of the European Parliament and of the Council.
Protection:	IP20
Size:	195 x 200 x 95 mm

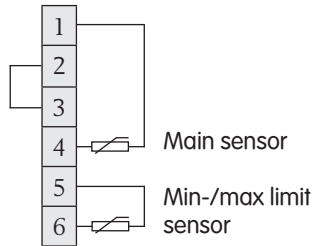


WIRING AND DIMENSIONS (mm)

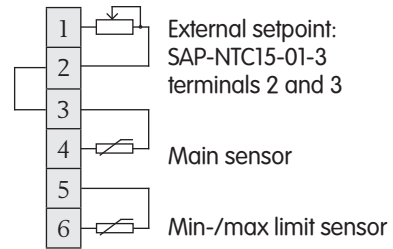
Power



Room temperature control

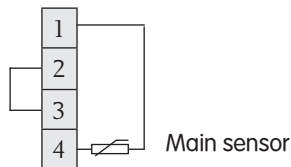


Room temperature control with external setpoint

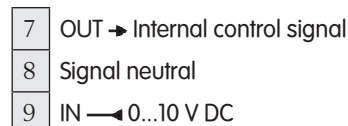


NOTE: When controlling Y-connected loads, the load must be symmetric and the signal neutral must not be connected!

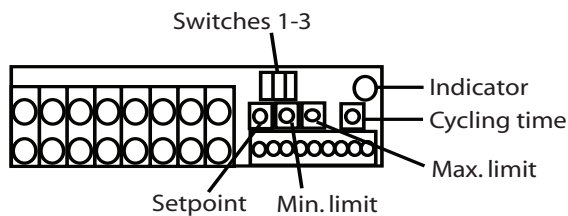
Constant supply air



External signal 0...10 V DC



Terminals 7 and 9 are connected by a factory-mounted wire strap. Remove the wire strap when using external control signal.



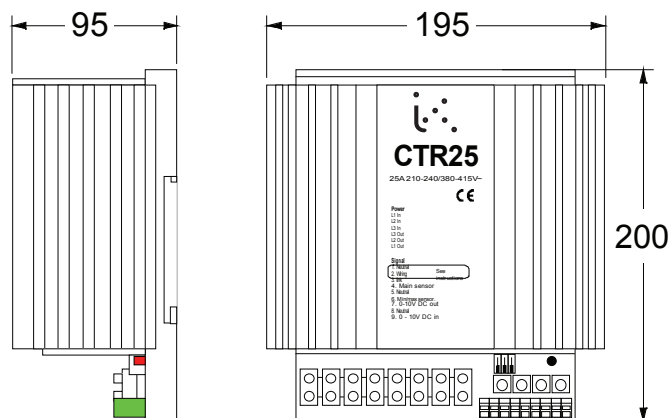
Operating switches:

1 - Setpoint:
Up: Built-in setpoint
Down: External setpoint

2 - Min. temp. limit:
Up: Activated
Down: Deactivated

3 - Max. temp. limit:
Up: Activated
Down: Deactivated

Min. and max. limit function can be active simultaneously



AB Industrietechnik Srl

Via Julius Dürst, 70 - 39042 Bressanone (BZ) - Italy
Tel. +39 0472/830626 - Fax +39 0472/831840
E-mail: info@industrietechnik.it
Homepage: www.industrietechnik.it

