

Dr.Heron With Triac, 4 Amps DCT

TEMPERATURE - CONTROLLER

INSTALLATION GUIDE

1.0 Wiring

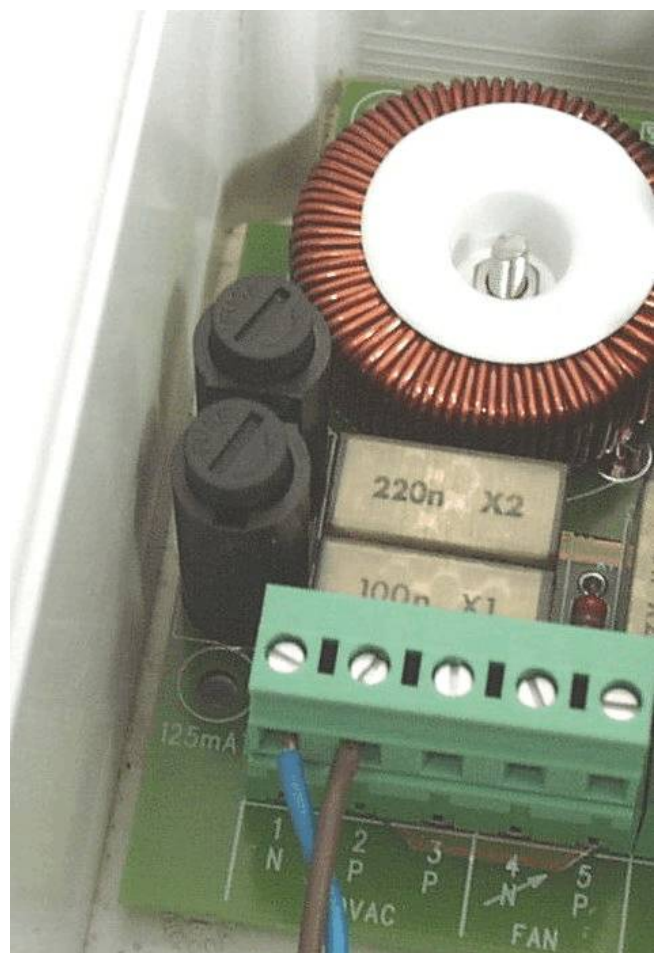
Cable type recommended for low power terminals 15 to 35 : **YSY-JZ.**, flexible, rodent proof. sufficient thickness = .6 square mm

The connections for sensor and control signals must be positioned away from power cables, at least 10 cm. The shielding connects to terminal, 32 GND Unshielded wire lengths should be as short as possible in the housing.

Connection of	The Terminals are Described In Number Order
230 V AC	0 (Neutral) at terminal 1 and phase at terminal 2
Fans, 2-line connection	Terminal 4 and 5. Yellow LED light "Fan stop" lights when fans are stopped
Fans, 3-line connection	Sub coil via capacitor connects to terminal 1. Main coil connects to terminal 4. The common line connects to terminal 5
ON/OFF Heating Electric or hot water valve	Terminal 6 and 7 are potential free (dry). The terminals are shorted, when heating is on. Red LED "Heat" lights up You should install a RC (Resistor Capacitor) network across the coil to avoid transients.
Alarm	Terminal 8, 9 and 10 are potential free (dry). The terminals 8 and 9 open by alarm condition . The terminals 9 and 10 closed by alarm condition. Green LED "OK" lights up when there is no alarm.
Sprinkling AUX1	Terminal 11 and 12 may control a small 12 VDC relay for sprinkling or other timer functions. Terminal 12 makes contact to minus/GND when active.
Back-up by mains power failure	An external 12VDC power supply (S1 or S3) with battery may be connected to terminal 14 (+) and 15 (-) The controller will be able to control actuator motors during power failure. It will not activate the alarm relay, as long as the battery are OK, and the temperature is within the alarm limits.
Temperature sensor	Terminal 16 (plus = white) and terminal 17 (minus= brown).
Outside Temperature Sensor	If you have more controller units, Dr.Heron or Dr.Gemini, only one would have to have a sensor connected. This unit may convey the outside temperature to the others. Set dip switch #1 on this unit to ON given that the RS 485 network has been connected.
Motor Valve, heating 0-10 V Control Signal	Terminal 22 (plus) and 23 (minus) 1.5 V - 10 V = 0% - 100%

Motors for Air Inlets (I) 0-10 V Control Signal	Terminal 24 (plus) and 25 (minus). 1.5 V - 10 V = 0% - 100% More motors may be controlled, parallel connection
Slave Unit, Triac or Frequenzy Controller (A) 0-10 V Control Signal --- Stop Signal for Slave Unit	Terminal 26 (plus) and 27 (minus). 1.5 V - 10 V = 0% - 100% --- Terminal 28 may be connected to the Triac Slave Unit to make the fans stop by minimum or below.
Motors for Exhaust (U) 0-10 V Control Signal	Terminal 29 (plus) and 30 (minus). 1.5 V - 10 V = 0% - 100% More motors may be controlled, parallel connection
Connecting PC, other units and alarm equipment. + Common Outdoor Temperature sensor	Terminal 34 (A) and 35 (B) connects to a communication box that handles RS485 on one side and USB to connect to the PC. Shielding connects to terminal 32 (GND). Additional Dr.Heron units and other units, like Dr.Mayday or Dr.Sherlock, connects parallel, A to A and B to B, e.g. . Once network is established you may convey the outside temperature, the time, date and year from one unit to the others..

Fuses	To the left of terminal 1, there are two round, black fuse boxes. In the lower "F1" there should be a 125 mA for the controller. In the uppermost "F2" there should be a 5 AT fuse for the fan/triac.
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2.0 Adjusting the minimum and maximum speed of the fans

Locate the square potentiometers at the right most on the print card "MAX VENT" and below "MIN VENT".

Factory settings are 80 V and 210 V. Fan motors may vary technically and may qualify for an adjustment.

Minimum voltage is adjusted so, that you are on the edge of not being able to distinguish the wings of the fan.

Maximum is to be adjusted by a voltmeter from full to the point where voltage is clearly starting to fall. e.g. 210 V



3.0 Dip Switch Contacts

The dip switch is situated behind the shiny cover on the front panel. Use a coin to unscrew. There are 8 switches.

Factory settings are all dip switches in the OFF position

The dip switch settings may be read as a binary figure from 0-255.
Turn the knob to **ALARM** and press **NEXT**³ - (three times)

1 = dip switch 1 is ON

2 = dip switch 2 is ON

4 = dip switch 3 is ON

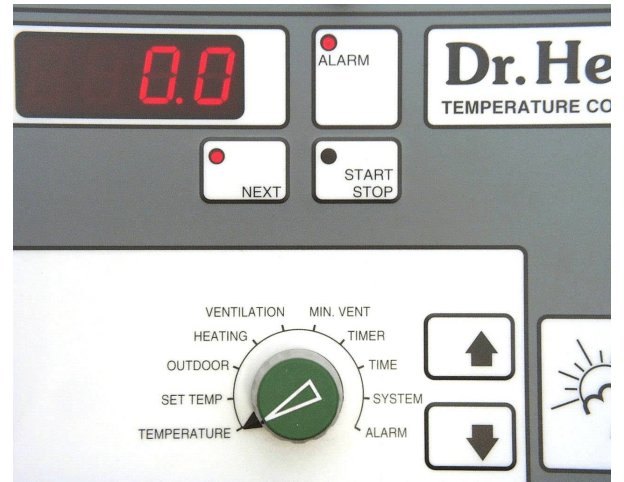
5 = dip switch 1 + 3 is ON

Nr.	OFF (=OPEN)	ON (kontakten vippet ind foroven)
1	Factory Setting	If you have multiple controllers connected through RS485 network, you can do with one outside temperature sensor. The controller that has the sensor connected, should have dip switch # 1 set to ON.
2	Factory Setting	- N/A
3	Factory Setting Fans do not stop at minimum	Fans do stop at minimum VENTILATION = 0%
4	Factory Setting Keyboard Locking disabled	Keyboard Locking enabled: will lock keyboard after 10 minutes of no operation.
5	Factory Setting Beeb by alarm situation enabled	Beeb by alarm situation disabled
6	Factory Setting One Source of Heating	Two sources of heating, first analog, then ON/OFF
7	Factory Setting	The analog heating output to be used as ON/OFF, which needs an optional relay R1.
8	Factory Setting	Reset to factory settings when power is switched on

4.1 Sensor adjustment

The Temperature sensors has been calibrated from factory and the calibration value is marked on the cord. Use this to adjust the reading.

TEMPERATURE + NEXT	Room Temperature calibration value
OUTDOOR + NEXT ⁴	Outside Temperature calibration value



4.2 Source of Heating, minimum runtime

Factory Setting apply to electric heating and hot water valves. However if you use an oil or gas burner you may want to encrease the value

HEATING + NEXT ²	Heating, minimum runtime Normally 30 sec. Set to 120 sec. by oil or gas burner
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4.3 Using Outside Temperature

Please, refer to paragraph 2.2 in the User Guide

4.4 Using Outside Temperature

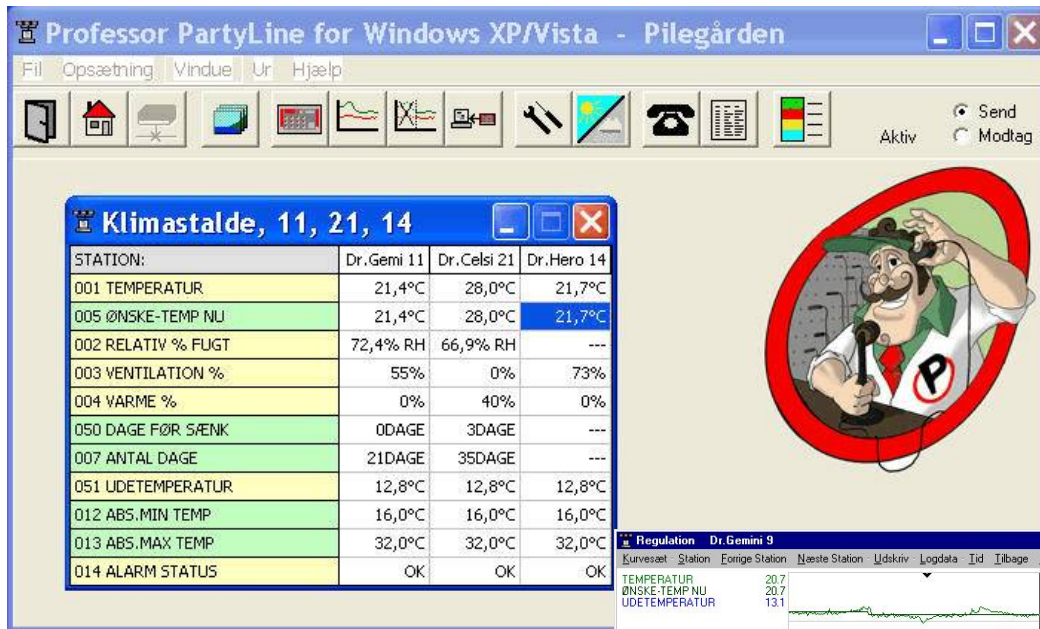
Please, refer to paragraph 2.2 in the User Guide

4.5 Using Heating function

Please, refer to paragraph 2.3 in the User Guide

4.6 Stop the fans by minimum

Dip switch # 3 to be set to "ON"



Software "Professor Partyline"

5.2 Communication with PC and Alarm Equipment

- Turn the knob to point at **SYSTEM + NEXT**. Display shows **n 1**, This is the station number which acts as an ID on the network. Notice that you can't have two units having the same number.
- Set the time, date and year
- If you have Dr.Mayday or Dr.Sherlock it is possible to call and get the present temperature value:

E. g. - press **5 * 1 #** to hear the temperature in room No. 5

Further information is in the user guide for Dr.Mayday and Dr.Sherlock



6.1 Alarm function

Please, refer to paragraph 3.0 and 3.1 in the User Guide

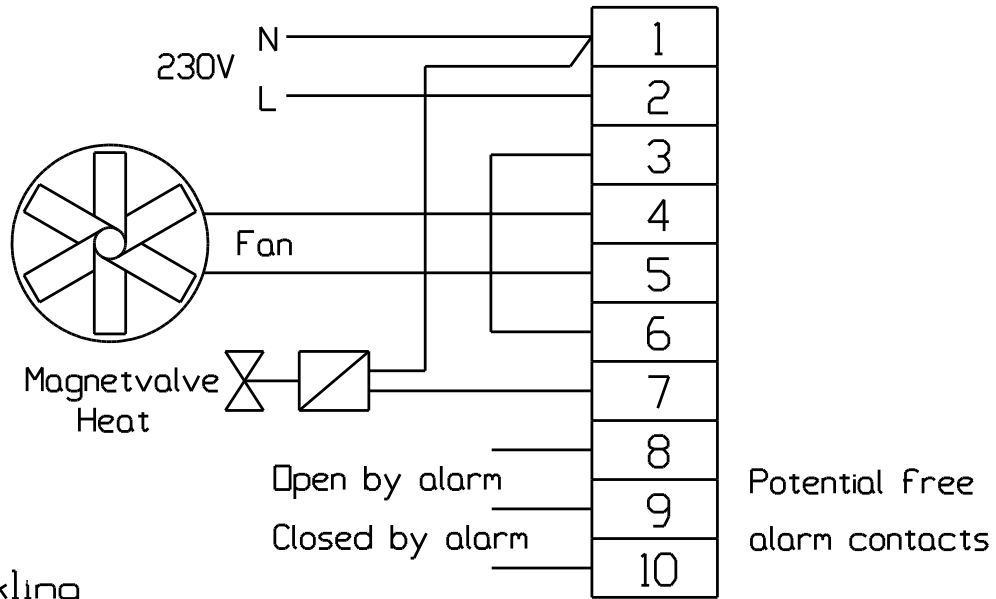
6.2 Beep by alarm situation

When an alarm situation is present there will sound a double beep every 10 sec. This is convenient, also by soft alarms. Default, this function is on, but may be switched off by setting the dip switch 5 to "ON".

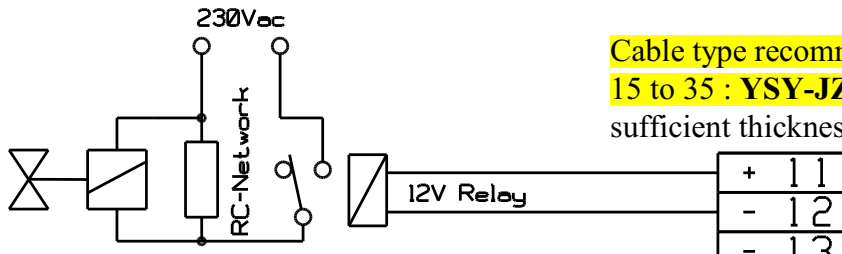
6.3 Voltage, Station No., version, dip switch

SYSTEM	Power Supply ,Voltage (normally 13.0 - 13.8 V)																								
SYSTEM + NEXT¹	Station No.. "n 1" = ID on the network																								
SYSTEM + NEXT²	Software Version																								
SYSTEM + NEXT³	<p>Information about the setting of the dip switch E.g.: "d 16" = dip switch 5 er ON</p> <table><tr><td>1</td><td>ON</td><td>= 1</td></tr><tr><td>2</td><td>ON</td><td>= 2</td></tr><tr><td>3</td><td>ON</td><td>= 4</td></tr><tr><td>4</td><td>ON</td><td>= 8</td></tr><tr><td>5</td><td>ON</td><td>= 16</td></tr><tr><td>6</td><td>ON</td><td>= 32</td></tr><tr><td>7</td><td>ON</td><td>= 64</td></tr><tr><td>8</td><td>ON</td><td>= 128</td></tr></table> <p>When more dip switches are on, add the values together. E.g. "5" means that 1 and 3 are ON.</p>	1	ON	= 1	2	ON	= 2	3	ON	= 4	4	ON	= 8	5	ON	= 16	6	ON	= 32	7	ON	= 64	8	ON	= 128
1	ON	= 1																							
2	ON	= 2																							
3	ON	= 4																							
4	ON	= 8																							
5	ON	= 16																							
6	ON	= 32																							
7	ON	= 64																							
8	ON	= 128																							

WIRING, example



Sprinkling



Cable type recommended for low power terminals
15 to 35 : **YSY-JZ**, flexible, rodent proof.
sufficient thickness = .6 square mm

