PULSER-HC-Lon

Heating/cooling controller with communication

PULSER®-HC-Lon is a contoller intended to control electric heating and cooling valve in sequence.

- LonWorks-communication
- Built-in sensor and and input for external sensor
- Window contact- Stops the electric heating
- Three modes of operation - settable via network
- Electric heating and cooling valve in sequence
- Cooling valve, three-point valve or thermal actuator

Function

Pulser HC-LON is a zone controller for controlling heating and cooling in sequence based on Lon-technology.

The controller has a triac output to control electric heating (10 A) and an extra output (cooling alt. heating), three-point or to 24 V thermal actuator.
Triac control is more accurate than on/off-control and therefore gives increased heating comfort and lower energy costs.

Pulser HC-Lon controls electric heating using time-proportional pulse/pause control. The ratio between on-time and off-time varies in accordance with the present power demand.
The controller can be used with either internal or external sensor or with a temperature signal from a LonWorks network. The main setpoint is set via the LonWorks network. With the setpoint knob on the controller, it can be shifted ± 3K.

Modes of operation
Via the Lon-network the Pulser-Lon can be set to different operation modes: present, not present and standby. Shiftable setpoint and also individual setpoints for heating and cooling.

Open window indication
To save energy, the controller will be forced to shut down if the window indication is activated.

Setpoint
Basic setpoint is set via the network. Setpoint can be shifted -3...+3 K by means of the knob on front.

Selection internal / external sensor
Is set by jumpers on the switchboard.
Please see overleaf.

- Internal sensor and internal setpoint shift
- Internal sensor and external setpoint shift
- External sensor and internal setpoint shift
- External sensor and external setpoint shift

In addition the device can be set by means of network variables to obtain its data over the Lon-network.

Technical data

Supply voltage	24 V AC
Connection	Screw terminal
Ambient working temperature	0...30°C not condensating. N.B. The unit generates 12 W heat.
Ambient humidity	Max 90% RH
Storage temperature	-40...+50°C
Pulse period	60 sec.
Protection class	IP30
CE	This product conforms with the requirements of European EMC standards CENELEC EN50081-1 and EN50082-1 and carries the CE-mark.

Outputs

Load, electric heating	10 A, 230 V AC, (Min 1A)
Acuator	Triac, 24 V AC, 0,5 A (1 A peak)

Inputs

Input external sensor/setpoint	For Regin NTC-sensor type TG-R530, TG-K330 or corresponding sensor

Settings

Setpoint shift	+/-3K, basic setpoint is set via network (LonWorks)
Neutral Zone (NZ)	Is set via network (LonWorks)

Sensor

Built-in sensor	Range 0...30°C

LonWorks network variables

See separate leaflet

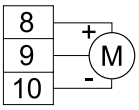
Wiring and dimensions

Terminal blocks

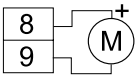
1	Net A
2	Net B
3	External setpoint
4	Signal neutral
5	External sensor
6	Window indication
7	Window indication
8	Actuator, increase/heating
9	Actuator, common
10	Actuator, decrease/cooling
11	Supply, 24 V AC
12	Neutral

13	Supply 230 V
14	Supply, neutral
15	Load
16	Load

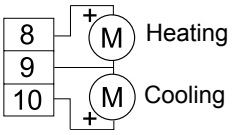
3-point / cooling
increase/decrease



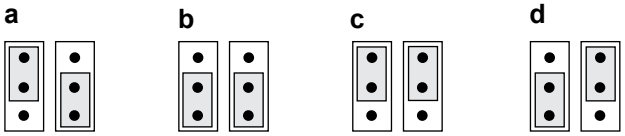
One thermal actuator
cooling / heating



Two thermal actuators
cooling / heating

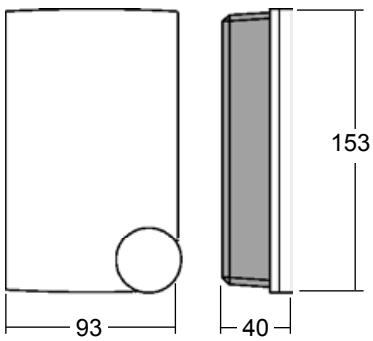


To select sensor / input data



a: External sensor and external setpoint shift
b: Internal sensor and external setpoint shift
c: External sensor and internal setpoint shift
d: Internal sensor and internal setpoint shift

In addition the device can be set by means of network variables to obtain its data over the Lon-network.



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