

# DRR450

## PID controller with SSR

### PID thermoregulator integrated into SSR module for multizone systems



The DRR450 thermoregulator has been designed to **control temperature and current on multizone systems** via RS485 communication standard and Modbus RTU/Slave protocol.

It is extremely compact and features direct plug-in connection to the mono-phase SSR power module, reducing wiring costs and installation time.

The integrated current **transformer** allows monitoring of current on the load and management of the relative alarm. In addition to SSR control output, a second output is available on the controller and it is programmable for alarms or heating/cooling **PID** functions.

For monitoring and controlling systems up to 150 DRR450 units, Pixsys has developed the software **Supervisor DRR450 running on Pixsys\_Panel PC TD850/TD900**

Application fields include plastic extrusion, injection moulding, packaging, furnaces, dryers, textile machineries and generally multizone heat treatment systems.

#### Main features

Box	Module 22,5mm series Celduc ESUC DIN-rail mounting EN50022
Power supply	24VDC $\pm 10\%$ (galvanically isolated from RS485 and input)
Consumption	1 VA
Operating conditions	Temperature 0-45 °C, humidity 35...95% RH (non condensing)
Material	Box: Polycarbonate V0
Weight	Approx. 75 g
Sealing	Box and Terminal blocks: IP20
Quick set-up options	Software LABSOFTVIEW
Wiring	With terminal extension on wiring system, Plug-in module of SSR

#### Inputs

1 Analog	Res. 13 bit, Selection TC, K, J, T, E (automatic compensation of the cold junction 0...50 °C, $\pm 0,2\%$ F.S.)
1 Current transformer	Integrated T.A. with 50A F.S. - resolution 0,1A

## Outputs

1 Digital integrated  
1 Digital auxiliary  
Serial communication

5VDC - 20mA max for direct command of SSR Celduc SU series  
24 VDC - 50 mA max on terminal blocks  
RS485 Modbus RTU - Slave (9600...115200 Baud)

## Software feature

Control algorithms

ON - OFF with hysteresis, P., P.I., P.I.D., P.D. time proportioned. Auto/ man regulation

Tuning

Manual, automatic or synchronized to serial command

Alarm mode

Absolute / Threshold, band, High / Low deviation, parallel to command output.

Loop/ Heater Break Alarm function

Soft-start

Gradient setting of the output command in percentage

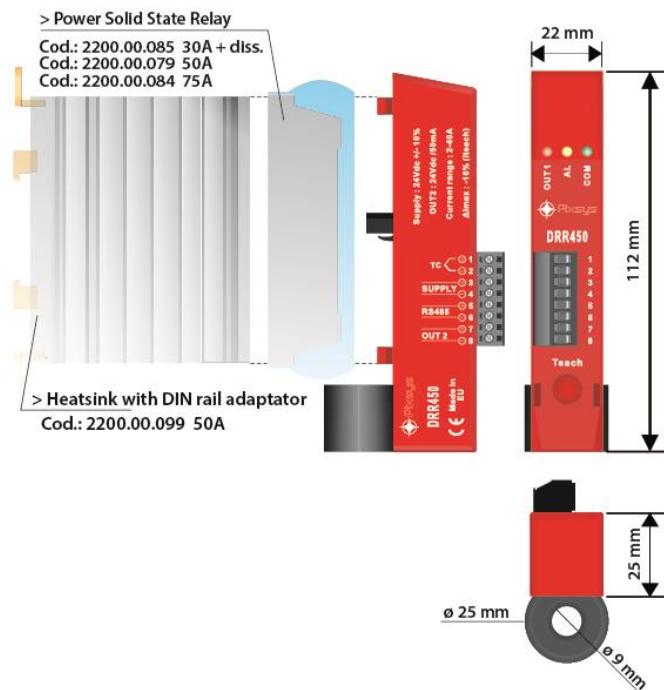
Double P.I.D.

Double action Heating / Cooling P.I.D.

## Ordering codes

### DRR450-12AD

1 Analog input + 1 Digital PNP 5V + 1 Digital PNP 24 VDC  
auxiliary + RS485 + T.A., supply 24 VDC



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