

## PDS 2 TEMPERATURE CONTROLLER

**PDS 2** is a digital temperature controller for air-handling unit, hot domestic water and heating applications.

Sensors are to be of Pt1000 model. Actuators may be 0-10V controlled and either 3-point controlled or thermic actuators.

Configuration, settings and monitoring will be made by using display and push buttons on the cover.

The controllers have built-in RS-485 channel for Modbus communication and they can be connected to any supervisory software / system supporting Modbus RTU.

### PDS 2 – V, application for air-handling unit and hot domestic water controlling

Air-handling unit control can be implemented as a fixed set point control or as a cascade control (with a room / exhaust air temperature compensation).

Set point setting is possible locally, via Modbus or by using the external potentiometer.

The coil of the AHU can be protected against frost by using a JVS 24 – frost guard, monitoring water temperature and opening the valve if needed.

### PDS 2 – H, application for heating

This is the application for the outside air temperature compensated control for central water-heating system. The temperature of out going water will be adjusted according to the curve consisting of 5 adjustable points. As a factory setting this curve is straight, but each of those points can be adjusted at the commissioning. The lowest and the highest points of the curve are at the same time minimum and maximum limits of the water temperature.

It is easy for the user to move the curve up or down by the push buttons on the cover.

Better control results can be achieved by using a room temperature sensor to compensate the influence of sunshine and fire places.

Internal clock can be used for saving the energy.

This can be made by reducing the temperature or by setting the controller to the ECO mode stopping the pump and closing the valve.



#### Technical data:

supply	24 Vac/dc, (20...26V) < 1 VA
inputs	3x Pt1000 or 2x Pt1000 + 1x potentiometer
outputs	1 x 0...10V / digital 3 or 4 x 0...10 Vdc, 2 mA 4 x 24Vac 1A triac
communication	RS-485 Modbus RTU, 9600/19200/38400 bps, 8 data bits, Parity None, 1 Stop Bit
terminals	1,5 mm <sup>2</sup>
housing	IP20, for 35mm DIN rail installation
dimensions w x h x d	53 x 90 x 58 mm

**Wirings:** see next page

#### Ordering guide:

Model	Product number	Description
PDS 2	1150120	controller
TEAT Pt1000	1174070	immersion sensor
AT 80	1170010	pocket / well
TEHR Pt1000	1174190	room sensor
TEK Pt1000	1174040	duct sensor
TEP Pt1000	1174080	strap-on sensor
TEU Pt1000	1174090	outdoor sensor

Products fulfil the requirements of directive 2004/108/EY and are in accordance with the standards EN61000-6-3: 2001 (Emission) and EN61000-6-2: 2001 (Immunity).

#### Produal Oy

Keltakalliontie 18  
48770 Kotka  
FINLAND  
www.produal.com

Tel: +358-5-230 9200  
Fax: +358-5-230 9210  
info@produal.fi

**WIRINGS:**

