ATR142

Controller/Indicator with Triple Setpoint





- Versatile indicating PID controller
- Panel mount
- 3 setpoints
- Universal input
- Relay and SSR outputs
- Optional Modbus communications
- Universal supply voltage

GENERAL SPECIFICATIONS

Dimensions Supply Voltage Power Consumption Display Operating Conditions Inputs

Outputs

Control Accuracy Sampling Time Sealing

Configuration Optional Functions 32H x 74W x 58D mm 24 to 230VAC/DC 2W 4-digit green + 4-digit red LED; 6 status LEDs 0-40°C, 35-95%RH

1 configurable for J, K , R or S thermocouples; Pt100; Ni100; Pt500; Pt1000; PTC; NTC; 0/4 to 20mA;

0 to 10VDC; potentiometers <= 6kΩ or <= 150kΩ Control relay 8A; Alarm relay 5A; SSR Control/Alarm; Open/Close logic (time-proportioned); RS485 serial communication, MODBUS-RTU/Slave (version -T) ON/OFF; PID Autotuning; Heating/Cooling PID 0.5%±1digit for TC/RTD; 0.2%±1digit for mA/V 15ms (selectable software filter on input and display) IP54 front panel (IP65 with gasket), IP30 housing, IP20 terminal blocks

Parameters protected by password Timer ON/OFF; Pause/Continue Timer (assigned to alarm relay) This triple-setpoint controller has a dual red/green LED display which shows the process variable and setpoint value at the same time. The built-in switching power supply has an extended range of 24 to 230VAC/DC and does not require any jumper setting. The analogue input is selectable for thermocouples J, K, R & S; Pt100; PTC1000; Ni100; NTC10k (refrigeration industry); Pt500/Pt1000 (widely used in air-conditioning); 0 to 10V; 0 to 20mA and 4 to 20mA. Potentiometers with full scale up to $6k\Omega$ and $150k\Omega$ may also be used and there is a "latch on" function for quick calibration and setting of minimum, maximum and zero via the front keys.

Three setpoints are provided for control and/or alarm functions. They can be assigned to two relay outputs or an SSR output. The main control relay is rated at 8A. The alarm relay is rated at 5A (alarm modes: threshold, band, deviation). Open/ Close logic for motorised valves is also available.

Software features include ON/OFF control, PID + Autotuning and Heating-Cooling PID with a neutral zone. A single output (1 relay + SSR) version is available with RS485 serial communication and Modbus-RTU/Slave protocol for supervisory systems.

Front of panel sealing to IP65 can be achieved using a gasket (optional). There is also an optional Memory Card to copy all of the configuration parameters from one controller to another without powering them up.

Software application LabSoftView for Windows enables setting and monitoring of parameters on a PC. A special software release which integrates both the basic control loop and the timer function is available upon request.

