Tomek GmbH

ATR121 Controller Double SETPOINT



Food industry

Ovens/furnaces

Refrigeration

Sterilizers

Environmental chambers

Safety units

Injection moulding

Driers



Description

Double-setpoint controller which increases configurability of series ATR110/120 in the same standard size 32x74mm.

Input is configurable for thermocouples type J, K, S, R, PT100, PTC 1000 Ohm, NI100, NTC 10K (typically used in the refrigeration industry) and PT500/PT1000 (widely used in air-conditioning), signals 0...1V, 0...10V, 0...20mA, 4...20mA. Potentiometers $6K\Omega$ and $150K\Omega$ may also be read with function "Latch on" for quick calibration and setting of minimum, maximum and zero by frontal keys (see Application notes).

Two setpoints are available, one for command and one for alarm function, and two outputs configurable by parameter as relay or SSR control. The main relay is 8A (on models with internal transformer 24 or 115 or 230Vac) or 10A (on model with internal switching 12...24Vac/Vdc). The alarm relay is 5A.

Memory card enables quick configuration, reducing error margin.

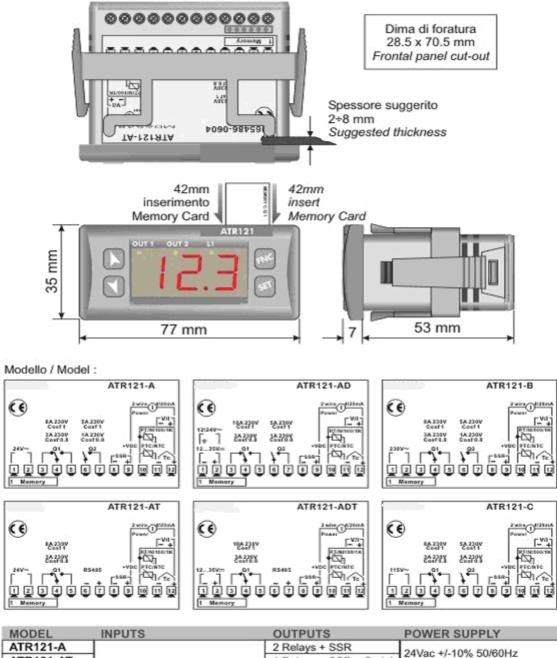
Software features include ON/OFF or PID+Autotuning control and Heatingcooling PID with neutral zone. A single output (relay/SSR) version is available with serial communication RS485 and Modbus-RTU / Slave protocol for application with supervisory systems.

All models are CSA-UL approved for the North-American market.

Technical data

SIZE: 32x74(FRONTAL)x58mm POWER SUPPLY: 12...24Vac, 24Vac, 115Vac, 230Vac, 12...35 Vdc POWERCONSUMPTION: 2W DISPLAY: 3 red Digits, green LEDs, decimal point OPERATING CONDITIONS: 0...40°C, 35...95rH% INPUTS: 1 configurable for TC K , R , J , S PT100, NI100, PT500, PT1000, PTC, NTC 0/4...20mA , 0...10Volt, Potentiometers <= 6ΚΩ , <= 150ΚΩ OUTPUTS: Control relay 10A (version AD) Control relay 8A (version A-B-C) Alarm relay 5A (Version AD-A-B-C) SSR command/Alarm (all versions) Serial RS485, MODBUS-RTU/Slave protocol (versions ADT, AT) CONTROL ACTION: ON/OFF, PID Autotuning (Heating/Cooling PID versions AD-A-B-C) ACCURACY: 0.5%±1digit for TC/RTD; 0.2%±1digit for mA/V SAMPLING TIME: 66ms SEALING: IP54 Frontal, IP30 Box, IP20 Terminal blocks CONFIGURATION: parameters protected by password MEMORY CARD for quick configuration, serial productions





ATR121-A	Configurabile / Selectable	2 Relays + SSR	24Vac +/-10% 50/60Hz
ATR121-AT		1 Relays + SSR + Serial	
ATR121-AD		2 Relays + SSR	1224Vac +/-10% 50/60Hz 1235Vdc
ATR121-ADT		1 Relays + SSR + Serial	
ATR121-B		2 Relays + SSR	230 Vac +/-10% 50/60 Hz
ATR121-C		2 Relays + SSR	115 Vac +/-10% 50/60 Hz