Compact PID controller ATR121 | 32×74 mm

Compact PID controller 32×74 mm
Universal entry, hot/cold regulation



KEY FEATURES

- Universal analog input
- Optimized PID hot/cold algorithm
- Operation of valves in open/closed logic
- Freely configurable outputs

Universal analog input

The analog input is programmed according to the sensor used:

- Resistance probes (type PT100);
- thermocouples;
- pressure transmitters;
- humidity sensors;
- flow sensors.

Optimized PID hot/cold algorithm

The hot/cold control algorithm is optimized for both temperature control and transient-fast process control, such as pressure or flow control. This compact PID controller ensures a stable and precise response, regardless of the dynamics of your installation.

Operation of valves in open/closed logic

The software functions of the ATR121 include dedicated open/closed logic for the control of motorized valves. This solution is suitable for industrial CVC systems (heating, ventilation, and air conditioning) and dosing installations.

Freely configurable outputs

Each output can be freely assigned: control commands, multiple alarms or events. This flexibility simplifies wiring and integration into your control cabinet.

Typical applications

- Temperature control of ovens, kilns and production machines
- Pressure and flow control in industrial processes
- Valve management in CVC installations
- Dosage systems

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Technical specifications

General characteristics

Case	32 x 74 (front side) x 53 mm
Nutrition	12…24 VAC/VDC or 230 VAC ±15%, 50/60 Hz (galvanic isolation 2500 V)
Consumption	2.6 VA (AD code), 4.4 VA (B code)
Display	3 digits, 0.56 red + 3 signaling LEDs
Terms of use	Temperature 0 to 45 °C, humidity 35 to 95 % RH
Materials	Housing: polycarbonate; front panel: ABS UL94V0 self-extinguishing
Weight	Approx. 100 g
Protection index	Front view IP54, IP30 enclosure, IP20 terminals
Quick configuration	Memory Card, LABSOFTVIEW software

Entrées

Analog input	1 input, resolution 16 bits
Thermocouples	Types K, S, R, J (automatic compensation for cold welding at 0 to 50 °C)
Precision	±0.2% full scale ±1 digit
Thermostatic resistances	PT100, PT500, PT1000, Ni100, PTC1K, NTC10K (β 3435K)
Process signals	0…10 V (40,000 points), 0/4…20 mA (30,000 points)
Potentiometer	6 kΩ, 150 kΩ (40,000 points)
Sampling time	66 ms (15 Hz)

Outings

Relais	2 relays: 1 relay 10 A/8 A 250 VAC + 1 relay 5 A 250 VAC (resistive load)
Digital release	1 output: 8 VDC 20 mA (code B) or 12…35 VDC 30 mA (code AD)
Auxiliary output	1 output for sensor power supply: 8 VDC 20 mA (code B) or 12…35 VDC 30 mA (code AD)

Software functions

Regulatory algorithms	ON/OFF with hysteresis, P, PI, PID, PD time-proportional, dead band
Adjustment	Manual or automatic (autotuning)
Modes of operation	Indicator, single setpoint, dual setpoint (selected by parameter)
Data protection	Locking of the control and alarm settings, access to the parameters via password
Alarm modes	Absolute/threshold, band, high/low gap, manual reset option
Double PID	PID hot/cold
Open/closed logic	For motorized valves
Setpoints	2 setpoints

Technical advice and quote

DYNATIME SA distributes this product in Switzerland from Marin (NE). Our team helps you choose the right version for your application and sends you a quote quickly.
+41 32 968 15 36 · **info@dynatime.ch** · dynatime.ch/en/catalog/compact-pid-controller-atr121/