PID controller 48×48 mm ATR244

PID controller 48×48 mm (1/16 DIN)
1 or 2 analog inputs, NFC programming, RS485 option



KEY FEATURES

- One or two analog inputs
- Versatile outputs
- NFC and RS485 Modbus programming
- Advanced control functions

Description

With the ATR244, Pixsys has set new standards in its range of controllers. This 48×48 mm PID controller combines a luminous display, a scrolling help function for the operator, and NFC programming in the most common format in electrical cabinets.

One or two analog inputs

The two-input versions handle two processes with two independent control loops, or calculate the sum, difference, or average of the two measurements. Each input accepts thermocouples, thermoresistors, and voltage or current process signals, with a resolution of 16 bits.

Versatile outputs

The SSR relay outputs are used for regulation or alarms. The analog output 4...20 mA or 0...10 V is used to control an actuator or to relay the measurement or setpoint.

NFC and RS485 Modbus programming

The MyPixsys application configures the controller via NFC, without wiring or power supply. The -T versions add an isolated RS485 port in Modbus RTU for integration into a supervision system or an automation system.

Advanced control functions

Dual hot/cold PID, soft-start, open/closed logic for motorized valves and loop break alarm are available on all versions.

Typical applications

- Ovens, kilns and heating presses
- Control of two zones with a single device (versions with 2 inputs)
- Pressure, level or flow control via 4...20 mA signals
- Replacement of existing 48×48 controllers, notably the ATR243

Non-contractual document. Specifications subject to technical changes. Edition 11/2026.

Technical specifications

General characteristics

Dimensions	48 x 48 mm (front panel), depth 105 mm
Nutrition	24…230 VAC/DC ±10 % (versions 12ABC, 12ABC-T, 13ABC), 24 VAC/DC (23A-T), 115…230 VAC (23BC-T), isolation 2.5 kV
Consumption	6 W/VA
Display	4 digits 0.52 (measure) + 5 digits 0.30 (label)
Materials	Enclosure and front panel: UL94V2 self-extinguishing PC
Weight	Approx. 185 g
Protection index	Front view IP65, enclosure and terminals IP20
Terms of use	0 to 45 °C, 35 to 95 % RH
Certifications	CE, UL

Entrées

Analog inputs	1 or 2 depending on the version, resolution 16 bits
Thermocouples	K, S, R, J, T, N, B (cold welding compensation -25 to 85 °C)
Thermostatic resistances	PT100, PT500, PT1000, Ni100, PTC1K, NTC10K
Process signals	0…10 V (50,000 points), 0/4…20 mA (40,000 points), 0…60 mV (25,000 points)
Potentiometer	1…150 kΩ (50,000 points)
Precision	±0.2% full scale ±1 digit
Current transformer entry	1 input 50 mA (versions 13ABC, 23A-T, 23BC-T)
Sampling time	Programmable up to 2.1 ms (470 Hz)

Versions and releases

ATR244-12ABC	1 analog input, 1 analog output, 2 digital I/Os, 2 relays
ATR244-12ABC-T	Like 12ABC + RS485
ATR244-13ABC	1 analog input, 1 analog output, 2 digital inputs, 3 relays
ATR244-23A-T	2 analog inputs, 2 analog outputs, 4 digital I/Os, 3 relays, RS485, 24 VAC/DC power supply
ATR244-23BC-T	Like 23A-T, power supply 115…230 VAC
Relais	2 A 250 VAC resistive load
SSR outputs	2 outputs 12/24 VDC, 25 mA max.
Analog output	4…20 mA or 0…10 VDC (40,000 points, ±0.2%)
Communication	Isolated RS485, 1200 to 115 200 baud, Modbus RTU (versions -T), micro USB

Software functions

Regulatory algorithms	ON/OFF with hysteresis, P, PI, PID, PD time-proportional
Adjustment	Manual or automatic (autotuning)
Alarm modes	Absolute/threshold, band, high/low range, manual reset option, loop break alarm
Double PID	Hot/cold
Soft-start	Gradient in degrees/hour or fixed output percentage
Open/closed logic	For motorized valves
Configuration	NFC (app MyPixsys), MyPixsysLab software, Memory Card, EASY-UP codes
Data protection	Locking of the settings, access to the parameters via password

Non-contractual document. Specifications subject to technical changes. Edition 11/2026.