Temperature controller 32×74 mm ATR144

Compact PID controller 32×74 mm
Universal input, NFC programming, RS485 option



KEY FEATURES

- Universal input 16 bits
- NFC programming without power supply
- Two versions depending on the installation
- Complete control functions

Description

The Pixsys ATR144 is a 32×74 mm PID controller that follows the standards of the Blue Line range. Its high-contrast white display remains readable in an industrial environment, and its scrolling assist function guides the operator directly on the front panel.

Universal input 16 bits

The analog input accepts thermocouples K, S, R, J, T, E, N and B, thermoresistors PT100, PT500, PT1000, Ni100 and Ni120, PTC and NTC thermistors, as well as process signals 0…10 V, 0/4…20 mA and 0…60 mV. Therefore, the same model covers most of the sensors in the existing fleet.

NFC programming without power supply

With the MyPixsys app (Android and iOS), the controller is configured from a smartphone via NFC, without wiring and without powering the device on. The settings are prepared in the workshop or duplicated in series in just a few seconds.

Two versions depending on the installation

The ATR144-ABC version has 2 5 A relays. The ATR144-ABC-T version retains 1 relay and adds an isolated RS485 port in Modbus RTU to send the measurements to an automation or supervision system.

Complete control functions

Despite its compact size, the ATR144 incorporates a dual hot/cold PID, soft-start, open/closed logic for motorized valves, and a loop break alarm.

Typical applications

- Temperature control of small machines and production equipment
- Tents, thermostated baths and heating panels
- Electrical panels where the space on the front is limited
- Replacement of the ATR141 and ATR142, of which the ATR144 is the successor

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Technical specifications

General characteristics

Dimensions	74 x 32 x 53 mm
Nutrition	24…230 VAC/DC ±10 %, 50/60 Hz (galvanic isolation 2.5 kV)
Consumption	5 W/VA
Display	4 white digits 0.38 + 5 red digits 0.28, 6 LEDs
Materials	Enclosure and front panel: UL94V2 self-extinguishing PC
Weight	Approximately 120 g
Protection index	Front view IP65, enclosure and terminals IP20
Terms of use	0 to 45 °C, 35 to 95 % RH, maximum altitude 2000 m
Certifications	CE, UL

Entrées

Analog input	1 input, resolution 16 bits
Thermocouples	K, S, R, J, T, E, N, B (cold welding compensation -25 to 85 °C)
Thermostatic resistances	PT100, PT500, PT1000, Ni100, Ni120, PTC 1K, NTC 10K, NTC 2252
Process signals	0…1/5/10 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 at 25 °C
Digital entries	2 PNP (1 with PT100)
Sampling time	Programmable up to 2.1 ms (470 Hz)

Versions and releases

ATR144-ABC	1 analog input, 1 digital input, 2 5 A 250 VAC relay outputs
ATR144-ABC-T	1 analog input, 1 digital input, 1 5 A 250 VAC relay, isolated RS485 (1200 to 115 200 baud)
SSR output	1 output 12 VDC, 25 mA max.
Auxiliary output	12 VDC, 30 mA max. for sensor power supply

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 and delay in activation optional, 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), micro USB and MyPixsysLab software, Memory Card, EASY-UP codes
Data protection	Locking of the settings, access to the parameters via password

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.
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