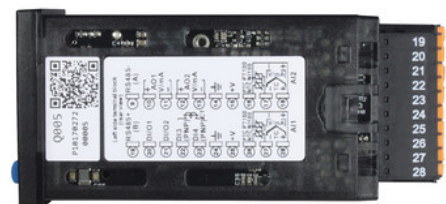# PID Process Controller 48x48 mm ATR244

Programmable by NFC/RFID, single/dual analogue inputs, analogue outputs, multi-voltage power supply, RS485/Modbus

Process controller ATR244 sets new standards for Pixsys ATR range of controllers. It stands out for the bright display which ensures optimal visibility and increased level of information for the operator beside a new scrolling Help function.

ATR244 relies on Pixsys flagship programming mode by NFC/RFID technology with dedicated **App MyPixsys for Android devices** (same already used for Pixsys signal converters and STR indicators) not requiring wirings and power supply, allowing quick set-up/updates on site.

Availability include a model with dual analogue input and dual analogue output for maximum flexibility of applications. It is possible to achieve **two separate heating/cooling PID control loops in one device** or to handle **mathematical operations** between two process values.

The outputs can be selected as command/multiple alarm modes/analogue retransmission. Serial communication standard is RS485 with Modbus RTU/Slave protocol.

User friendly, multimedia support and traceability

For the entire range of Pixsys products we provide <u>technical support</u> for installation, programming and operation via our **online forum** and via Skype.

The interface of the controller ATR244 ensures that the product is easy to use; operator is also supported byprogramming tools such as **App MyPixsys** (for Android devices) and **LABSOFTVIEW** programming software.

Programming tutorial videos are available on **our Y**<u>ouTube channel</u>. As for the entire range of PIXSYS products, thanks to the **QR code the traceability of the product** is guaranteed for its entire life cycle; the information and documentation online can be also be accessed by reading the QR CODE that directs your mobile device to the product's technical specifications and verifies its warranty conditions.

Ordering codes - Power Supply 24..230 Vac/Vdc

ATR244-12ABC	1 analogue input + 2 relays 2 A + 2 SSR + 2 D.I. + 1 analogue output V / mA
ATR244-12ABC-T	1 analogue input + 2 relays 2 A + 2 SSR / D.I. + 1 analogue output V / mA + RS485
ATR244-13ABC	1 analogue input + 3 relays 2 A + 2 SSR + 2 D.I. + 1 analogue output V / mA + CT

Ordering codes - Power Supply 24 or 115..230 Vac/Vdc

ATR244-23A-T	2 analogue inputs + 3 relays 2 A + 2 SSR + 2/4 D.I. + 2 analogue output V/mA + RS485 + CT
ATR244-23BC-T	2 analogue inputs + 3 relays 2 A + 2 SSR + 2/4 D.I. + 2 analogue output V/mA + RS485 + CT

Main features

Box	48 x 48 (front panel) x 105 mm
Power supply	24..230 V AC / DC ±15% 50/60 Hz - galvanical isolation 2,5KV
Consumption	8 W
Display	4 digits 0,5" white + 4 digits 0,3" red
Operating conditions	Temperature 0-45 °C, humidity 35..95 RH%
Material	Box: PC UL94V2 self-extinguishing, front panel: PC UL94V2
Weight	Approx. 185 g
Sealing	IP65 (front panel) IP20 (box and terminal bloks)
Quick set-up options	Memory Card, software LABSOFTVIEW, or EASY-UP
APP / NFC	Programming via APP MyPixsys for Android smartphones

Inputs

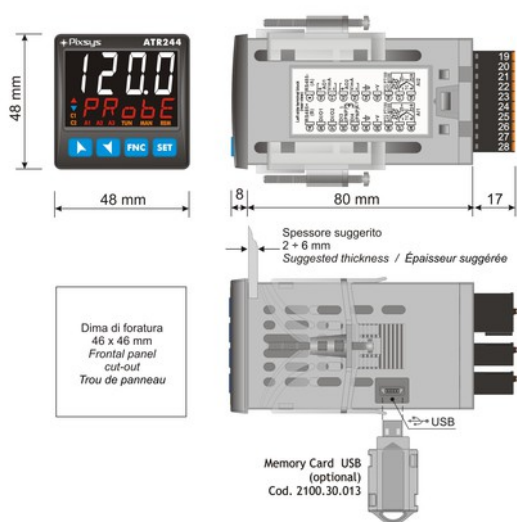|	
1 or 2 - Configurable	Res. 16 bit, selectable for TC type K, S, R, J, T, N, B (automatic compensation of cold junction) -25..85°C, ±0,2% F.S. ±1 digit F.S.), thermoresistances PT100, PT500, PT1000, Ni100, PTC1K, NTC10K (β 3435K), process signals 0..10 V (50000 points), 0/4..20mA (40000 points), 0..60 mV (25000 points), potentiometer 1..150 KΩ (50000 points)
Sampling time	Programmable up to 2,1 ms (frequency up to 470 Hz)
2/4 digital inputs	Setpoint change, Hold, Run, Tuning launch, Start / Stop, Lock configuration
1 Current Transformer (C.T.) input	Selection C.T. 50 mA, 800 μs - 4096 points

Outputs

2/3 relays	Relay 2 A - 250 V AC resistive change
2 SSR	12 / 24 V DC - 30 mA max
1/2 analogue	Selection 4..20 mA (40000 points ± 0,2% F.S.) or 0..10 V DC (40000 points ± 0,2% F.S.) for command or retransmission PV / SPV
Serial communication	RS485 Modbus RTU - Slave (4800..115200 baud code-T)

Software features

Control algorithms	ON - OFF with hysteresis, P., P.I., P.I.D., P.D. time proportional
Tuning	Manual or automatic
Data protection	Lock of control / alarm setpoint / Access to parameters by password
Alarm modes	Absolute / Threshold, Band, High / Low deviation. Alarm with optional Manual reset. Loop Break Alarm
Auto / Manual function	Output percentage command also with automatic change in case of sensor failure
Double P.I.D.	Heating / Cooling P.I.D.
Programmer function	Pre-programmed cycle / 3 steps
Soft-Start	Rising gradient expressed as Degrees / Hour or fixed output percentage
Open / Close logic	Open / Close logic for motorized valves

Installation

Size and installation

Wiring plan