

ATR171 Overview



Configurable PID controller 72x72mm

Control and alarm functions up to 4 setpoint

Double analogue input

Multi-voltage power supply

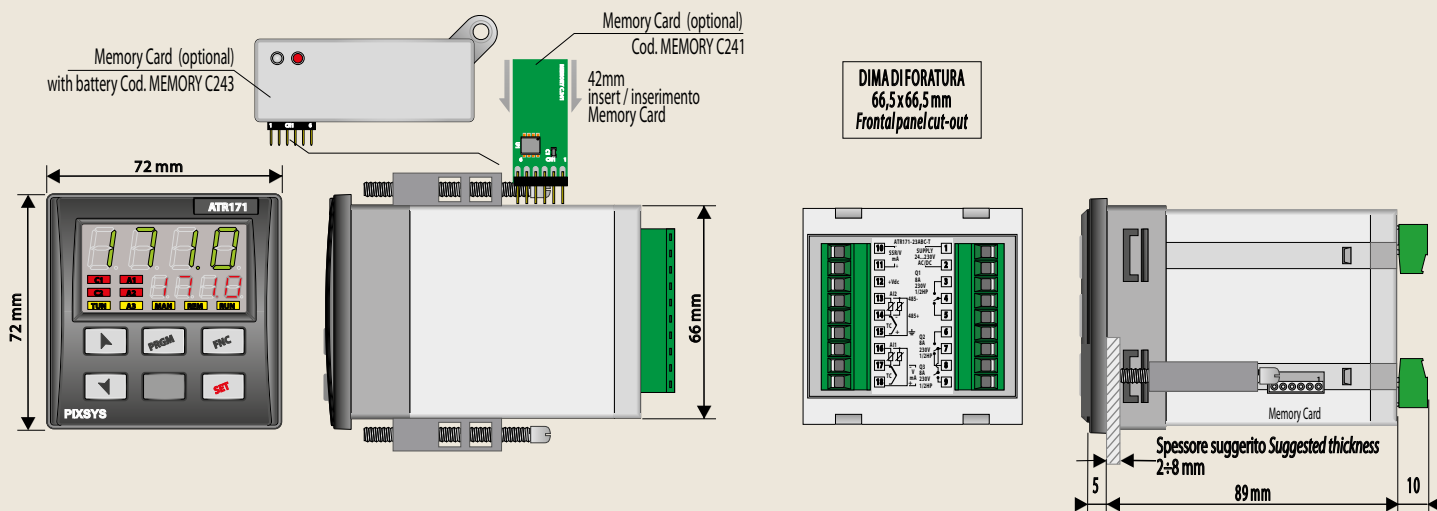
Analogue output, RS485 serial

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Main features

Box	72 x 72 (front panel) x 99 mm
Power supply	24..230V AC/DC $\pm 15\%$ 50/60 Hz (galvanical isoaltion 2500 V)
Consumption	6 VA
Display	4 digits 0,5" green + 4 digits 0,3" red + 6 signaling leds
Operating conditions	Temperature 0-45 °C, 35..95 RH% (non condensing)
Material	Box: Noryl UL94V1 self-extinguishing; Front panel: Silicon rubber V0
Weight	Approx. 250 g
Sealing	Front panel IP54 (IP 65 with gasket) , Box IP30, Terminal bloks IP20
Quick set-up options	Memory Card with / without battery, software LABSOFTVIEW, EASY-UP codes

Inputs

1 Analogue (AI1)	Res. 16 bit, selectable for TC type K, S, R, J, (automatic compensation of the cold junction 0..50 °C, $\pm 0,2\%$ F.S. ± 1 Digit F.S.), thermoresistance PT100, PT500, PT1000, Ni100, PTC1K, NTC10K, (β 3435K), process signals 0..10V(54000 points), 0/4..20mA (40000points), 0..40mV (16000 points), potentiometer 6K Ω , 150 K Ω (50000 points)
1 Analogue (AI2)	Selection TC, K, J, S, R, PT100,PT500, PT1000, Ni100, PTC1K, NTC10K (B 3435K) - (code -23ABC-T)
Sampling time	4,1 ms (Frequency from 4,12 Hz to 242 Hz)
1 Digital input	PNP, 1/2 setpoint selection, Hold, Run Auto/man regulation, tuning start, pre-programmed cycle start (codes -11/12/14ABC)

Outputs

1...3 Relays	8A - 250 Vac resistive charge + 1 Relay 5A - 250 Vac resistive charge (code -14ABC)
1 Digital/Analogue	Selection digital PNP 12 VDC - 30 mA / 0..10Volt / 4...20mA as command or retransmission setpoint-process (code -23ABC-T)
Serial communication	RS485 Modbus RTU - Slave (code -23ABC-T)

Software features

Control algorithms	ON - OFF with hysteresis, P, P.I., P.I.D., P.D. time proportioned. Automatic / Manual regulation
Tuning	Manual / Automatic
Data protection	Lock of command / alarm setpoint - Access to parameters by password
Alarm modes	Absolute / Threshold, band, High / Low deviation. Alarm with optional manual reset and activation delay. Dead band function
Soft-Start	Rising gradient expressed as Degrees / Hour
Double P.I.D.	Heating / Cooling P.I.D.
Programmer function	3 steps pre-programmed cycle with Start / Stop
Timer function	Controller function + decremental Timer
Remote setpoint	Command setpoint corresponding to AI1 4...20 mA / 0..10 V (code -23ABC-T)
Double input mode	AI1 and AI2 input correlation as mean, difference or addition of process (only for temperature sensors TC - RTD on code -23ABC-T)
Setpoint	Up to 4 setpoints

Ordering codes

ATR171-11ABC	1 Analogue Input + 1 Relay + 1 digital PNP - Supp. 24...230 VAC/DC
ATR171-12ABC	1 Analogue Input + 2 Relays + 1 digital PNP - Supp. 24...230 VAC/DC
ATR171-14ABC	1 Analogue Input + 3 Relays + 1 Relay - Supp. 24...230 VAC/DC
ATR171-23ABC-T	2 Analogue Inputs + 3 Relays +1 digital PNP / 0..10Volt / 4..20mA + RS485 - Supp. 24..230 VAC/DC