Pixsys®
ELECTRONICS

ATR144

Controller / Regolatore

User manual / Manuale d'uso / Manuel utilisateur

2 Model identification

The ATR144 series includes 2 versions:

Power supply 24..230 VAC/VDC ±15% 50/60 Hz – 5 Watt/VA	
ATR144-ABC	1 analogue input + 2 relays 5 A + 1 D.I/O
ATR144-ABC-T	1 analogue input + 1 relays 5 A + 1 D.I/O + RS485

3 Technical data

3.1 General features

Displays	4 digits 9.6 mm (0.38 pollici), 5 digits 7.1 mm (0.28 pollici)
Operative conditions	Temperature: 0-45° C -Humidity 35..95 uR% Max. altitude: 2000m
Sealing	IP65 front panel (with gasket) IP20 box and terminals
Materials	Box and front panel: PC UL94V2 self-extinguishing
Weight	Approx. 120 g

3.2 Hardware features

Analogue input	**AI1**: Configurable via software. **Input**: Thermocouple type K, S, R, J,T,E,N,B. Automatic compensation of cold junction from -25…85° C. **Thermoresistances**: PT100, PT500, PT1000, Ni100, Ni120, PTC 1K, NTC 10K (β 3435K and β3694K), NTC 2252 (β3976K) **Input V/mA**: 0-1 V, 0-5 V, 0-10 V, 0-20 o 4-20 mA, 0-60 mV. **Pot. Input**: 1...150 KΩ.	Tolerance (25° C) ± 0.2% ± 1 digit (on F.s.) for thermocouple, thermoresistance and V/mA. Cold junction accuracy 0.1° C/°C. **Impedence**: **0-10 V**: Ri>110 KΩ **0-20 mA**: Ri<5 Ω **0-40 mV**: Ri>1 MΩ
Relay outputs	Configurable as command and alarm output.	Contacts: 5 A - 250 VAC Resistive load.
SSR outputs	Configurable as command and alarm output.	12 V, 25 mA. Min. load 1 mA
Power-supply	Extended power-supply 24..230 VAC/VDC ±15% 50/60 Hz Overvoltage category: II	Consumption: 5 Watt/VA

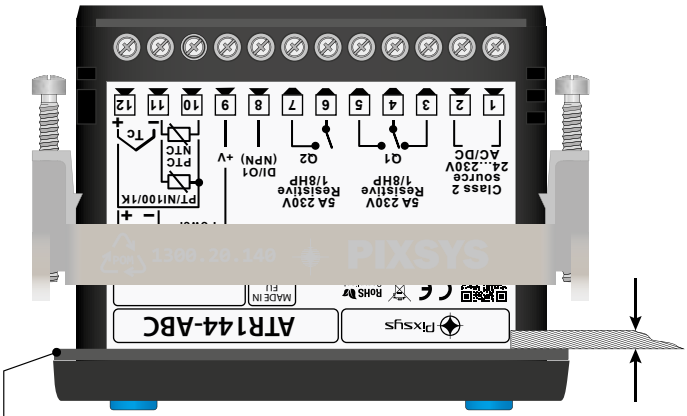
3.3 Software features

Regulation algorithms	ON-OFF with hysteresis. P, PI, PID, PD with proportional time
Proportional band	0..9999°C o °F
Integral time	0,0..999,9 sec (0 exclude)
Derivative time	0,0..999,9 sec (0 exclude)
Controller functions	Manual or automatic Tuning, selectable alarm, protection of command and alarm setpoints.

3.4 Programming mode

by keyboard	..see paragraph *10*
software LabSoftview	..on “Download section” of official pixsys site: www.pixsys.net
App MyPixsys	..through download the App on Google Play Store®, see paragraph *9* When activated by a reader/ interrogator supporting NFC-V protocol, controller ATR244 is to be considered a VICC (Vicinity Inductively Coupled Card) according to ISO/IEC 15693 and it operates at a frequency of 13.56 MHz. The device does not intentionally emit radio waves.

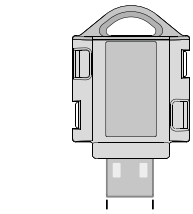
4 Dimensions and installation



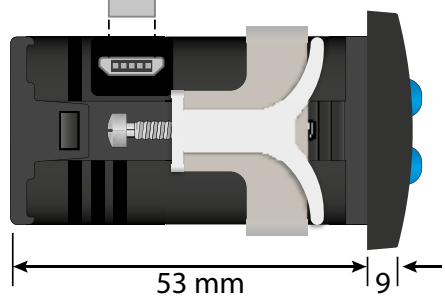
Frontal panel cut-out
Dima di foratura
28.5 x 70.5 mm

Suggested thickness
Spessore suggerito
2 ÷ 8 mm

Gasket for 32x74
Guarnizione per 32x74
Cod. 1600.00.082 (optional)



Memory Card USB
(optional)
Cod. 2100.30.013



5 Electrical wirings

This controller has been designed and manufactured in conformity to Low Voltage Directive 2006/95/EC, 2014/35/EU (LVD) and EMC Directive 2004/108/EC, 2014/30/EU (EMC). For installation in industrial environments please observe following safety guidelines:

- Separate control line from power wires.
- Avoid proximity of remote control switches, electromagnetic contactors, powerful engines.
- Avoid proximity of power groups, especially those with phase control.
- It is strongly recommended to install adequate mains filter on power supply of the machine where the controller is installed, particularly if supplied 230 VAC.