ATR142

Controller/Indicator with Triple Setpoint

- Dairy industry
- Refrigeration
- Sterilizers
- Environmental chambers
- Footwear machinery
- Cereal driers
- Metalworking
- Heating element control
- Indicator for inverters
- Building Automation
- Galvanizing
- Chillers

GENERAL SPECIFICATIONS

Dimensions	32H x 74W x 58D mm
Supply Voltage	24 to 230VAC/DC
Power Consumption	2W
Display	4-digit green + 4-digit red LED; 6 status LEDs
Operating Conditions	0-40°C, 35-95%RH
Inputs	1 configurable for J, K , R or S thermocouples; Pt100; Ni100; Pt500; Pt1000; PTC; NTC; 0/4 to 20mA; 0 to 10VDC; potentiometers <= 6kΩ or <= 150kΩ
Outputs	Control relay 8A; Alarm relay 5A; SSR Control/Alarm; Open/Close logic (time-proportioned); RS485 serial communication, MODBUS-RTU/Slave (version -T)
Control	ON/OFF; PID Autotuning; Heating/Cooling PID
Accuracy	0.5%±1digit for TC/RTD; 0.2%±1digit for mA/V
Sampling Time	15ms (selectable software filter on input and display)
Sealing	IP54 front panel (IP65 with gasket), IP30 housing, IP20 terminal blocks
Configuration	Parameters protected by password
Optional Functions	Timer ON/OFF; Pause/Continue Timer (assigned to alarm relay)

This triple-setpoint controller has a dual red/green LED display which shows the process variable and setpoint value at the same time. The built-in switching power supply has an extended range of 24 to 230VAC/DC and does not require any jumper setting. The analogue input is selectable for thermocouples J, K, R & S; Pt100; PTC1000; Ni100; NTC10k (refrigeration industry); Pt500/ Pt1000 (widely used in air-conditioning); 0 to 10V; 0 to 20mA and 4 to 20mA. Potentiometers with full scale up to 6kΩ and 150kΩ may also be used and there is a “latch on” function for quick calibration and setting of minimum, maximum and zero via the front keys.

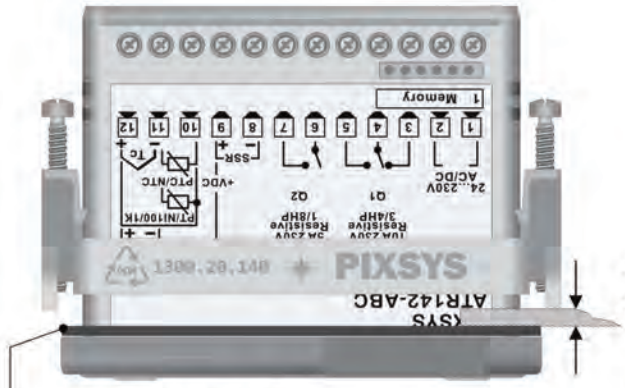
Three setpoints are provided for control and/or alarm functions. They can be assigned to two relay outputs or an SSR output. The main control relay is rated at 8A. The alarm relay is rated at 5A (alarm modes: threshold, band, deviation). Open/Close logic for motorised valves is also available.

Software features include ON/OFF control, PID + Autotuning and Heating-Cooling PID with a neutral zone. A single output (1 relay + SSR) version is available with RS485 serial communication and Modbus-RTU/Slave protocol for supervisory systems.

Front of panel sealing to IP65 can be achieved using a gasket (optional). There is also an optional Memory Card to copy all of the configuration parameters from one controller to another without powering them up.

Software application LabSoftView for Windows enables setting and monitoring of parameters on a PC. A special software release which integrates both the basic control loop and the timer function is available upon request.

CALEX ELECTRONICS LIMITED



28.5 x 70.5 mm
Front panel cut-out

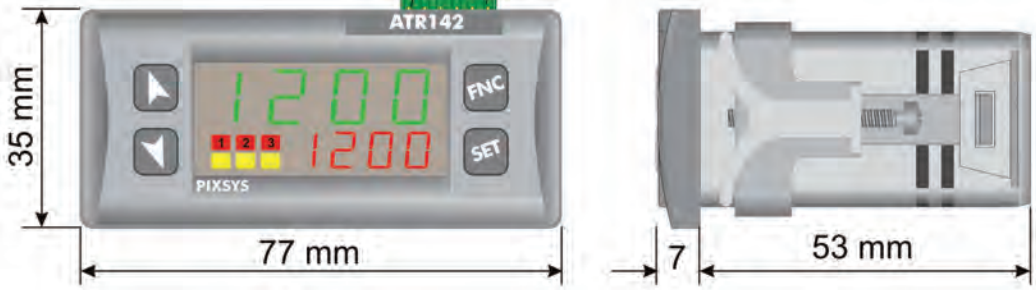
Suggested thickness
2–8 mm

Gasket for 32x74
Code 1600.00.082 (optional)

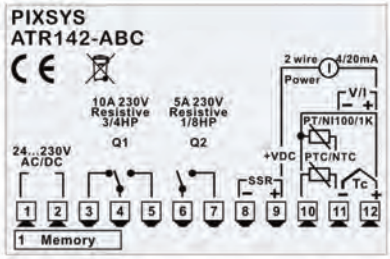
Memory Card (optional)
Code MEMORY C121

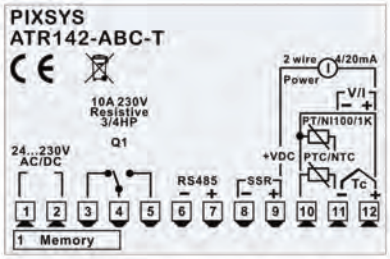
42mm insert Memory Card

Memory Card (optional)
with battery
Code MEMORY C243



Model :





MODEL	INPUTS	OUTPUTS	POWER SUPPLY
ATR142-ABC	Selectable	2 Relays + SSR	24...230V AC/DC
ATR142-ABC-T		1 Relay + SSR + RS485	+/- 15% 50/60Hz

Calex Electronics Limited
PO Box 2, Leighton Buzzard, Bedfordshire, England LU7 4AZ
Tel: +44 (0)1525 373178/853800 Fax: +44 (0)1525 851319 Lo-call Tel: 0845 3108053
E-mail: info@calex.co.uk Online: http://www.calex.co.uk

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