

Temperature Micro Logger 1430 Smart indicator series



- ▶ Intelligent temperature logger for refrigeration
- ▶ Wireless data communication, via IRDA link
- ▶ Over 14,000 data readings stored
- ▶ Internal microcontroller, EEPROM and power supply
- ▶ Built using Surface Mount Technology
- ▶ Non-volatile memory
- ▶ Configurable data log interval
- ▶ PC tools to allow configuration and data download
- ▶ Industry standard Thermistor supplied
- ▶ Monitors mains power interruptions
- ▶ Programmable upper/lower limit alarm
- ▶ Convenient snap-in design, fits standard panel cut-out
- ▶ Panel cut-out: 30.0x11.0mm

Approvals and specifications

100 to 230Vac $\pm 20\%$ 50/60Hz.
Less than 1 watt (power consumption)



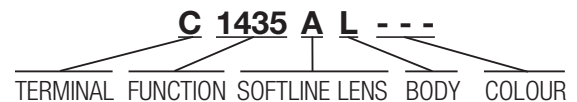
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

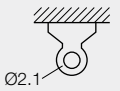
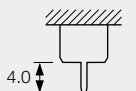
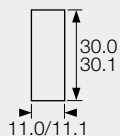
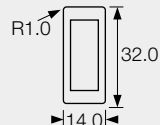
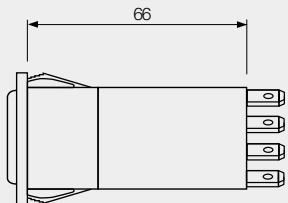


CE Mark



FCC compliant



▶ TERMINAL	▶ BODY & DIMENSIONS	▶ SPECIFICATION
<p>C</p>  <p>6.3 x 0.8</p> <p>H</p>  <p>4.8 x 0.8</p> <p>T</p>  <p>Ø2.1 Solder</p> <p>X</p>  <p>4.0 PCB 0.8Sq</p>	<p>L Panel Cut-Out</p>  <p>30.0 30.1 11.0/11.1</p> <p>Bezel</p>  <p>R1.0 32.0 14.0</p> <p>Dimensions</p>  <p>66</p>	<p>Dimensions</p> <p>Bezel 32.0mm x 14.0mm Panel cut-out 11.0/11.1mm x 30.0/30.1mm 0.75mm to 2.5mm</p> <p>Panel thickness</p> <p>Nylon 6.6, matt finish, black colour is standard</p> <p>Body</p> <p>Lens</p> <p>Clear Polycarbonate, Softline matt finish</p> <p>Terminals</p> <p>Copper alloy, Silver plated</p> <p>Flame retardancy</p> <p>UL94V-0</p> <p>RoHS compliant</p> <p>Yes</p> <p>Operating supply</p> <p>100 to 230Vac $\pm 20\%$ 50/60Hz.</p> <p>Power consumption</p> <p>Less than 1 Watt</p> <p>Operating conditions (body)</p> <p>-20°C to +70°C (-4°F to 158°F) 0 to 95% RH (non-condensing)</p> <p>Measurement range</p> <p>-30°C to +80°C (-22°F to +176°F)</p> <p>Measurement accuracy</p> <p>$\pm 1.0^\circ\text{C}$ ($\pm 1.8^\circ\text{F}$)</p> <p>Measurement resolution</p> <p>$\pm 0.5^\circ\text{C}$ ($\pm 0.9^\circ\text{F}$)</p> <p>Temperature sensor</p> <p>NTC Thermistor, sealed sensor, cable length 1m</p> <p>Communications method</p> <p>Infrared serial data port</p> <p>Logging Interval</p> <p>Programmable 1 second to 12 hours per reading</p> <p>Logging data capacity</p> <p>>14,000 measurements stored</p> <p>Data retention</p> <p>>10 years without power</p> <p>Electromagnetic Compatibility</p> <p>Compliant with directives 89/336/EEC & 92/31/EEC</p> <p>EMC Immunity</p> <p>EN 55014-2:1997 Household appliances EN 61000-6-2:2005 Industrial Environments, 10 V/m EN 61000-4-2:1995 Electrostatic Discharges (ESD) EN 61000-4-3:2002 RF Electromagnetic fields EN 61000-4-4:2004 Fast Transients & Bursts EN 61000-4-5:1995 Surges EN 61000-4-6:1996 Conducted disturbances EN 61000-4-11:2004 Voltage dips & interruptions</p> <p>EMC Emissions</p> <p>EN 55014-1:2001 Household appliances EN 55022 Class B:1998 Domestic environments</p> <p>Approvals</p> <p>UL Recognised FCC compliant CE Mark</p> <p>Standards</p> <p>UL 508 CSA C22.2 No. 14-05</p>

All dimensions in millimetres (mm)

APPLICATIONS

- ▶ Refrigeration temperature monitoring for food safety compliance
- ▶ Deep freeze monitoring
- ▶ Cold storage monitor
- ▶ Chiller monitoring
- ▶ Process control temperature monitoring
- ▶ Visual checking of correct temperature
- ▶ Control system verification – independent monitoring of controller
- ▶ Power quality indication – records power interruptions
- ▶ Equipment status check - simple indicator lights

INDICATIONS

An Intelligent temperature data logging device for refrigeration applications, ideal for monitoring that freezers and chillers are maintaining the required temperatures to comply with food safety guidelines.

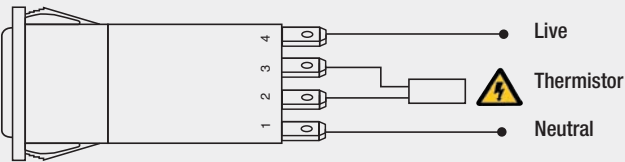
Designed to directly replace the standard neon indicator already fitted on many appliances, the front-panel mounted temperature logger operates like a standard neon indicator, giving visible status indication for the appliance or application. Normal operation will show continuous blue LED illumination (contact sales for other colours) while the monitored temperature is within the 'safe' range between lower and upper limits. The upper and lower temperature limits for alarm indication are fully user programmable.

The embedded microcontroller stores the temperature readings at regular intervals for retrieval and analysis. Over 14,000 readings can be stored in non-volatile memory (no battery is required). The data log interval is user configurable between 1 second and 12 hours. The logger also records the number of mains power interruptions. Stored data can be transferred to a collection device (PDA or Laptop) via a wireless infrared data link, a serial to infrared communication adapter is available as an accessory.

The device is provided with an industry standard Thermistor temperature sensor.

PC and PDA software can be downloaded from www.arcoelectric.co.uk/software

CONNECTIONS



PART NUMBERS

1435AL

Specify Terminal Type: C, H, T, X
Specify Model Code: 1435AL
Specify LED Colour: Green/Red, Blue/Red

SOFTWARE

The PC software allows fast and simple configuration of the temperature micro logger device settings. The stored temperature data can be easily extracted using a serial port infrared data link.

With a single button press, the 'Download log' feature imports the stored temperature reading data directly into an Excel spreadsheet for easy analysis and display.

The logging time interval can be set to suit the end application.

Low and high alarm setpoints can be fully configured for LED indication on the logger front panel. When the measured temperature is between the low and high limits, the Blue LED illuminates to indicate that the measured temperature is acceptable. When the measured temperature falls outside of low or high alarm setpoint, the LED illumination changes colour to Red. Additionally, if the alarm memory box is checked, the only way to clear a temperature alarm is to press the 'Alarm Clear' button.

The Logger status is continually updated while the infrared data link is active, and the current measured temperature is displayed in °C or °F.

Memory usage can also be monitored.

