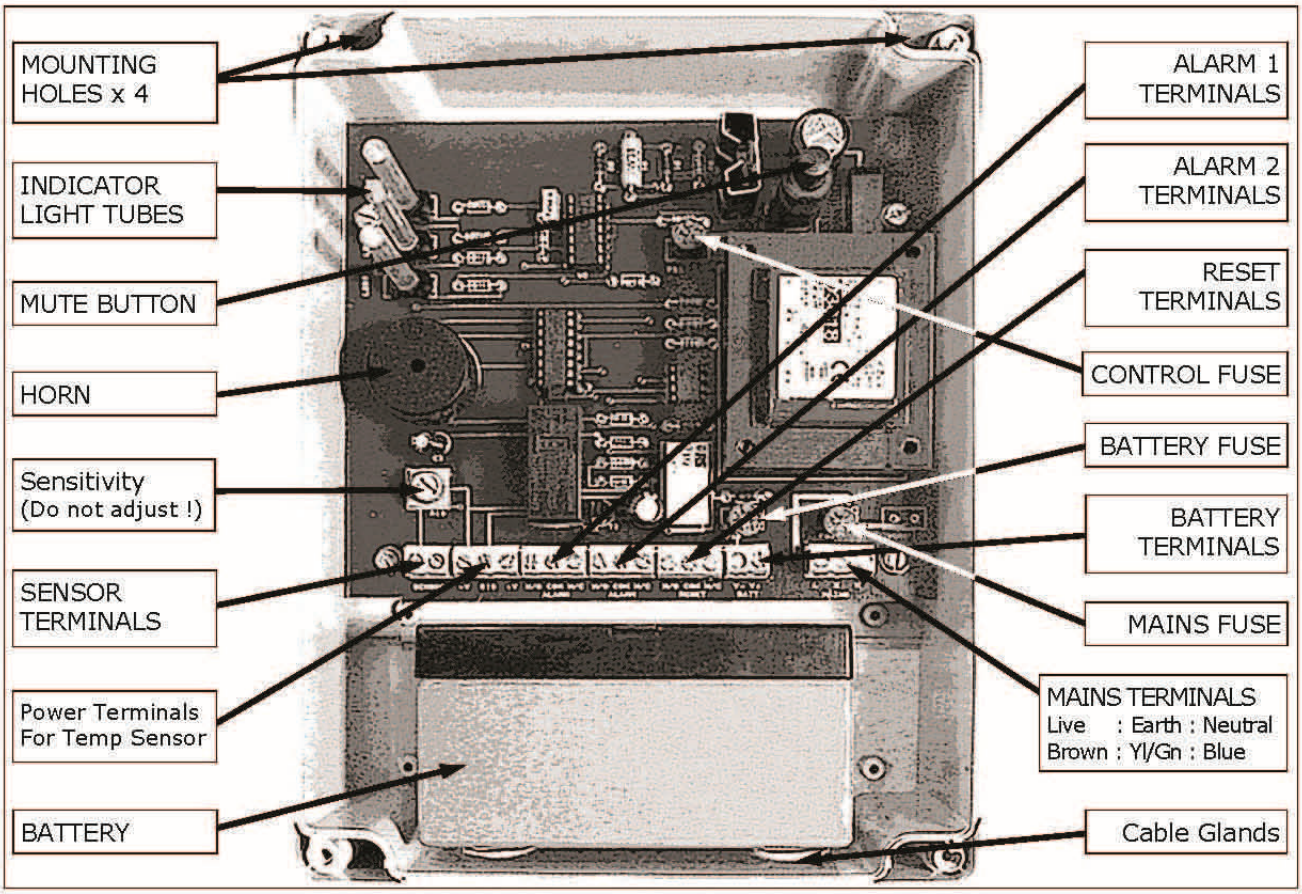
Resikom Limited

3 Kent Road, Dagenham, Essex, RM10 8HA,
United Kingdom
Tel: +44 (0) 845 686 6066
Fax: +44 (0) 845 686 6067
Email: info@resikom.com
Web: www.resikom.com

OTMA1 OVERTEMPERATURE ALARM UNIT - CONTROL SYSTEM LAYOUT



Basic System Operation: The OTMA1 ALARM is a sophisticated Single Zone Temperature Alarm designed as a stand-alone module to monitor Temperature or Overtemperature alarms from an adjustable Temperature Sensor. The OTMA Control Unit requires to be powered from a mains power 5amp supply and utilises a low volt signal for linking to the Temperature Sensor. A Leader Cable is used to connect the Controller to the Temperature Sensor. The Sensor must be in the monitored area but the Control Unit can be located outside to a maximum of 50m. The Temperature Sensor is activated by the change in ambient temperature in the monitored area, - which activates the Horn, the Light and the No-Volt signalling relay/s in the Control Unit. The OTMA Control Unit is provided with three levels of indication shown by lamps on the control panel; top LED green – System Live, Middle LED green Line Clear or red – Line Fault, and bottom LED red – Zone Alarm (alarm detected). The audible alarm is activated by any abnormal condition and is silenced by pressing the mute button. The alarm sound level is designed to be low, suitable for quiet office environments. The alarm system is designed to AUTOMATICALLY reset, requiring no operator input, but alarm lights remain on until the condition clears. In view of this simplicity of operation, a historical alarm will therefore not remain 'latched-on' after the event.

Mounting on the Wall: The OTMA1 unit is supplied in an ABS case designed to be wall mounted and is provided with a removable front cover. The cover is removed by undoing the four screws in the corners. This gives access to the control PCB and to the Battery, if fitted. The cover is not connected to the control PCB and can be fully removed. Four wall mounting holes are provided adjacent to the corner cover screws. Mounting screws are fitted via the front opening and no drilling of the cabinet is required. The cover houses the indicator lights which are light tubes and are not mechanically connected to the PCB. Ensure the horn extender tube is in position before closing the unit. Ensure that the battery terminals are correctly connected at the PCB and the Battery or damage could occur to both units.

Mains Power Connections: The control system operates off standard single phase mains supply which is connected to the input terminal marked with L (Live), E (Earth) and N (Neutral). Battery is connected to terminals marked BATT V- and V+. Three Control Fuses are provided. The Mains Fuse is directly above the Mains Terminals, marked FS1, and is a T5 cartridge type 2amp. The Battery reverse polarity Fuse is mounted directly above the Battery Terminals, marked FS2, and is a T5 cartridge type 1amp. The PCB Control Fuse is located adjacent to the left to corner of the transformer, is marked FS3, and is a T5 cartridge type 1amp.

Alarm Input Connections: Connection between the OTMA1 Control Unit and the Sensor is normally via a "Leader Cable". The Leader Cable is 'hard wired' to Terminals on the PCB marked "Sensor", and to the terminals in the Sensor. Leader Cables can be supplied to length. Multiple Sensors should be connected in parallel. The last Sensor should have the 15 KOhm EOL Terminator (resistor) fitted. Terminals are not polarity conscious at any connection on the line.

Output Alarm Connections: The system as standard is provided with an Output Signalling Relay with two sets of changeover volt-free contacts which activate on the alarm being raised. These can be fed to a remote Aqualeak Repeater Alarm Panel, or link to an Aqualeak Autodial Unit, or link into a computer based Building Management system or to switch on sump pumps/drainage systems etc. Both sets of Terminals are rated 240v AC 6amp, are marked ALARM and provide (left to right) Normally Open, Common, or Normally Closed contacts. A second Output Signalling Relay is provided which can be used by the BMS to 'time/date stamp' when the mute button was pressed to indicate when the alarm was acted upon, or to mute an external sounder. This Relay is rated 240VAC 2amp, is marked RESET and provides (left to right) Normally Open, Common, Normally Closed contacts.

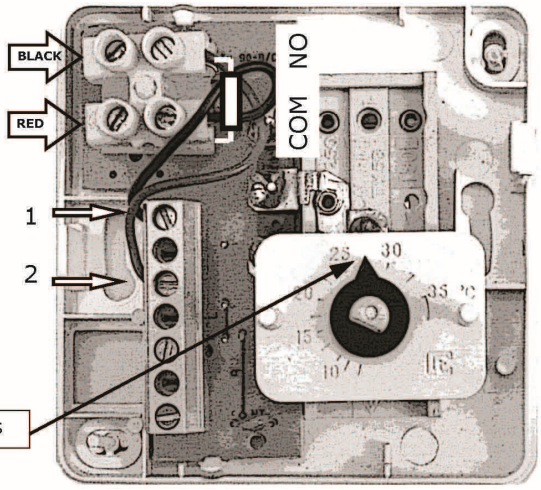
A live system test should be carried out at least once a year to ensure the Control Unit, the cabling and the Sensor are all operational.

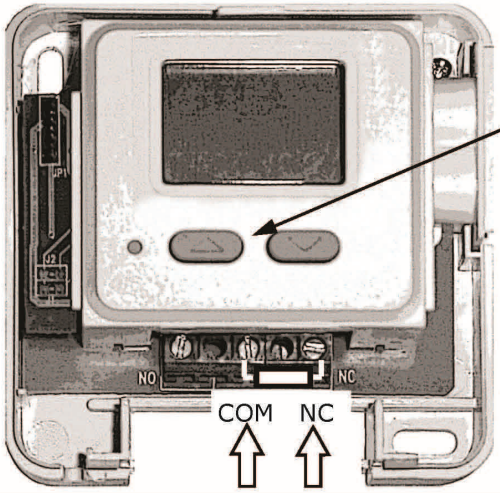
Resikom Limited

3 Kent Road, Dagenham, Essex, RM10 8HA,
United Kingdom
Tel: +44 (0) 845 686 6066
Fax: +44 (0) 845 686 6067
Email: info@resikom.com
Web: www.resikom.com

OTMA1 OVERTEMPERATURE ALARM : Temperature Sensor Setting

The OTMA unit may be supplied with a 'Tamper Resistant' or a 'Digital Display' Sensor. Both types of Sensors have an adjustable temperature range ***which must be set by the user to the required temperature settings.*** Setting of the conventional sensors with internal or external adjustment wheels is to position the arrow at the required trip temperature. Connections from the Control Unit to the Temperature Sensors are polarity conscious when the Sensor is fitted with Line Continuity monitoring and must therefore be connected to the correct terminals.





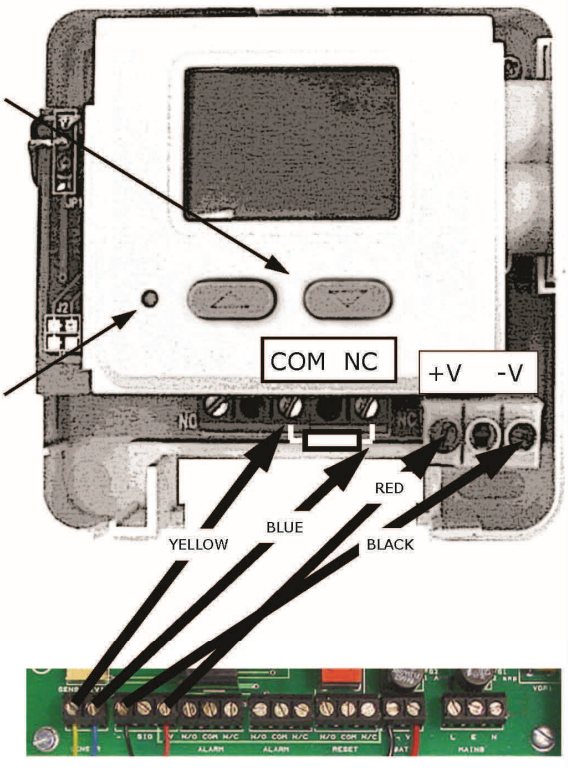
A Line Continuity monitoring Resistor is connected between the terminals of both types of Temperature Sensor. Resistor connections are not polarity conscious.

The Digital Display Temperature Sensor is powered from the OTMA Unit, normally via a multicore Signal Cable. The Digital Display Sensor has an adjustable temperature band ***which must be set by the user to the required temperature setting.*** Setting of the Digital Display sensor is by holding down either of the push buttons for more than three seconds when the display will flash once. Press the UP or DOWN buttons to select correct temperature. System returns to normal operation when no further button is pressed for approx 10 seconds. Default trip temperature is 20°C.

Digital Temperature Sensors are software driven and can therefore 'crash' due to voltage or other reasons. In the event of a 'crash', normally a blank screen, please press the reset button with a thin implement.

Connections from the OTMA Unit to the Digital Temperature Sensor must be made to the correct terminals or damage will occur to both units. A four wire signal cable should connect as follows: RED '+V' from the OTMA terminals to '+V' in the Digital Sensor, BLACK '-V' links to '-V' in the Digital Sensor. YELLOW from 'Sensor +' terminal in the OTMA to 'COM' in the Digital Sensor, and BLUE from 'Sensor -' terminal in the OTF to 'NC' in the Digital Sensor. A Line Continuity Resistor is connected between the terminals on the Sensor; these connections are not polarity conscious.

DIGITAL TEMPERATURE SENSOR



OTMA CONTROL UNIT