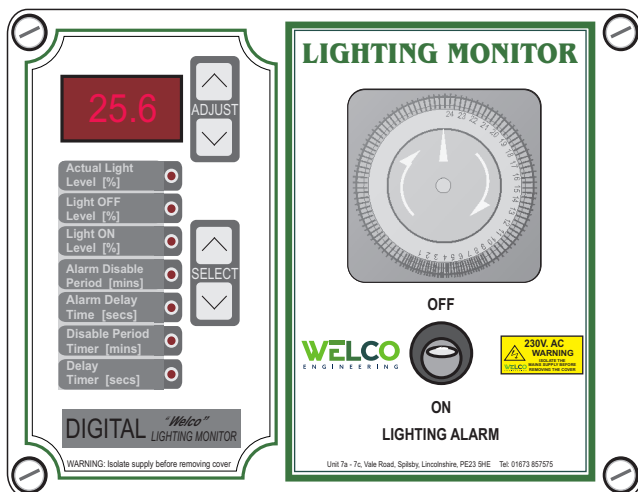


LIGHTING MONITOR

LIGHTING ALARM

Please read important information



Welco Engineering Ltd

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HEALTH AND SAFETY AT WORK



DANGER
ELECTRIC SHOCK RISK

ELECTRIC DEVICES CAN CONSTITUTE A SAFETY HAZARD

It is the responsibility of the user to ensure that the installation and maintenance of the product are carried out in strict compliance with any relevant instructions, regulations, codes of practice or bylaws in force.

This equipment should only be installed and commissioned by appropriately qualified personnel who have read and fully understood this users manual. If in doubt contact your supplier or Welco Engineering Ltd. for technical advice.

Every care has been taken to ensure that the contents of this instruction booklet are accurate , however no liability is accepted for any consequence of its use.
The manufacturers reserve the right to revise the product specification and other technical features resulting from improvement and continual development.

LIGHTING MONITOR SPECIFICATIONS

Supply	230v 50hz -6% +10%10va.
Setting Parameters	Front Panel Touch Buttons.
Resolution	0.1°C.
Output Relay (High Temperature)	Double Pole Changeover.
Output Relay (Low Temperature)	Single Pole Changeover.
Relay Contact Rating	8A 30v d.c. / 230v a.c.
Sensor	“Welco”
Time clock (mechanical).....	15 minute segments

DESCRIPTION

The Lighting Monitor controller designed and manufactured by Welco Engineering Ltd. To operate on a 230v 50 Hz supply to . The unit employs a time-clock so that the output can be switched on and off as required. The time-clock fitted is easily set by simply pressing in the segments for output ON and pulling out for output OFF, This particular time-clock minimum on or off times is 15 minutes.

ON / OFF SWITCH

In order for the lighting controller to be controlled the mode switch must be in the **MANUAL** position, This switch in the **FULL** position is used to bring the output to maximum and therefore bring the H.F. Lights to full brilliance without make any adjustments to the Illumination Dial.

TIME-CLOCK

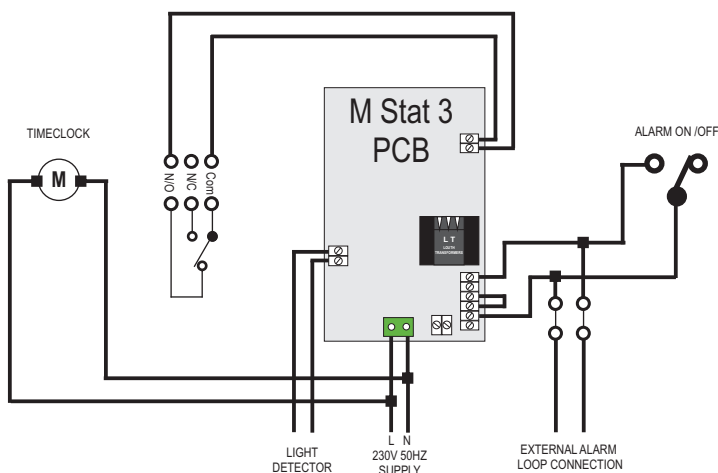
The time-clock minimum setting is 15 Minutes four segments per hour.

Two ON periods and Two OFF periods per hour.

Segments IN = ON

Segments OUT = OFF

WIRING DIAGRAM



LIGHTING MONITOR/ALARM OPERATING INSTRUCTIONS

The unit has a built in time clock which is designed to be set to the same ON/OFF period times as the main house time clock. This allows the unit with its' light detector to "supervise" the state of house lighting during a 24hr period.

Since it would be virtually impossible to match the dials of two mechanical type time clocks, the actual time clock on the monitor needs to be set to switch over slightly before the house time clock is due to switch. This is in conjunction with a built-in *Alarm Disable Period timer* within the monitor allows for a "don't care" period during which the house lights will normally switch.

If after this length of time has ended the house lights have not switched, then there is a short delay called *Alarm Disable Time*, after which the alarm will sound. This second delay is designed to allow staff to manually override the house lights for short periods without activating the alarm. Typical settings for the Lighting Monitor/ Alarm would be as follows overleaf

- Time Clock** - 15 minutes BEFORE house lights are due to switch
- Alarm Disable Period** - 30 minutes (to allow house time clock to switch)
- Alarm Delay Time** - 60 seconds (to allow short manual override of lights)

Parameter Descriptions

- Actual light Level [%]*** - displays the light intensity within the house as detected by the photo cell.
NOTE: The actual reading can be between 0 - 100% but values are dependant on lighting type, sensor positioning and calibration so may not cover the full range
- Light OFF Level [%] light*** - is the set light intensity level below which the lights are normally OFF. If the level in the house were to rise above this value during a LIGHTS OFF period, the alarm would activate.
- Light ON Level [%]*** - is the set light intensity level above which the lights are normally ON. If the light level in the house were to fall below this value during a LIGHTS ON period, the alarm would activate.
- Alarm Disable Period*** - is a delay period after the built-in time clock has just switched which disables the alarm typically for about 30 minutes. This allows the house time clock to operate at any time within this period without generating any false alarms.
- Alarm Delay Time*** - provides a short delay to allow the house lights to be manually overridden without generating an alarm. If after this period the house lights are still in an incorrect state, the alarm will activate.
- Disable Period Timer*** - displays the elapsed time of the built-in disable timer. This parameter is not normally adjusted and assists the engineer to commission the alarm system.
- Delay Timer*** - displays the elapsed time of the built-in delay timer. This parameter is not normally adjusted and assists the engineer to commission the alarm system.

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