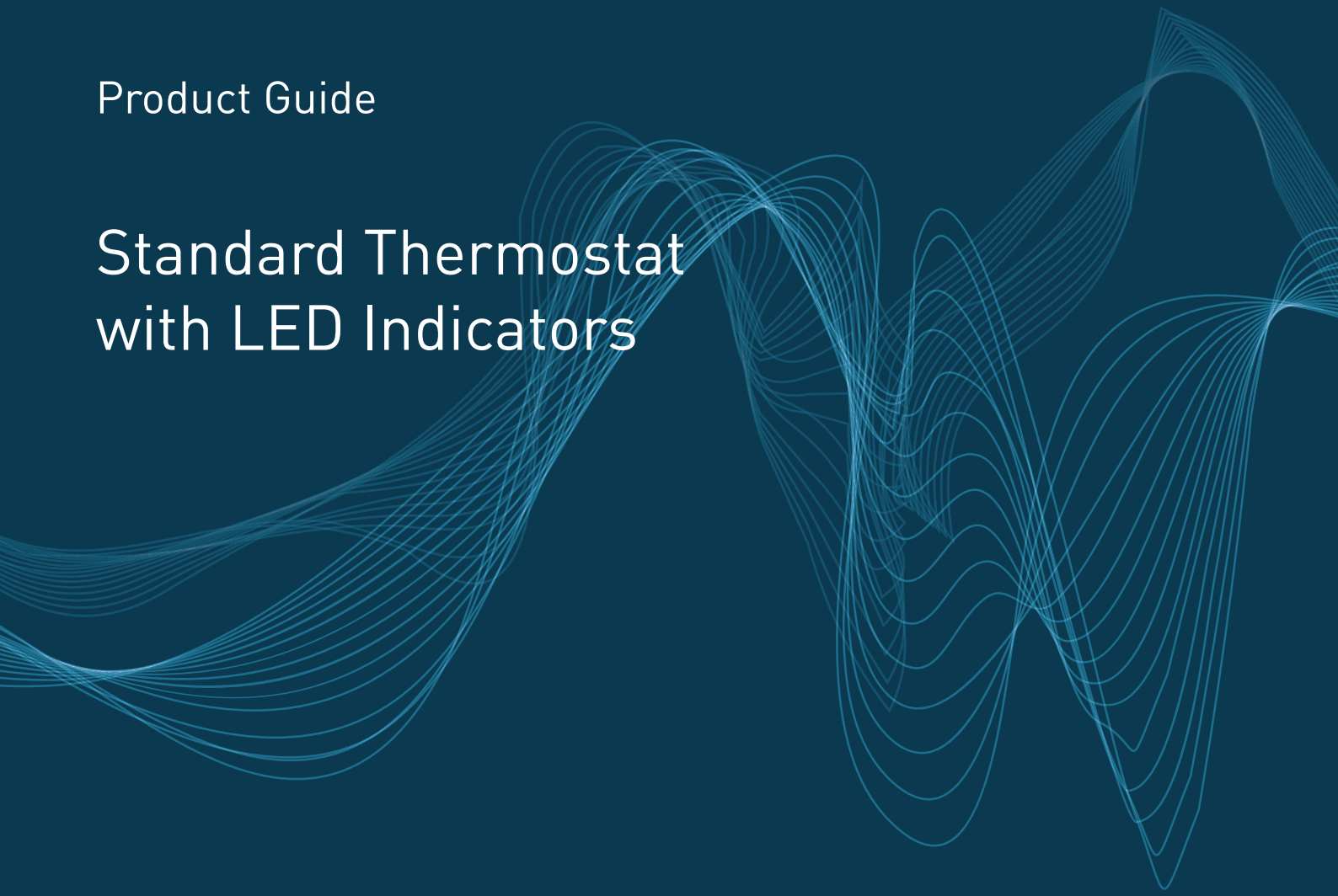
ms electronics

energy saving controls

E823

Product Guide

Standard Thermostat with LED Indicators



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Product Overview

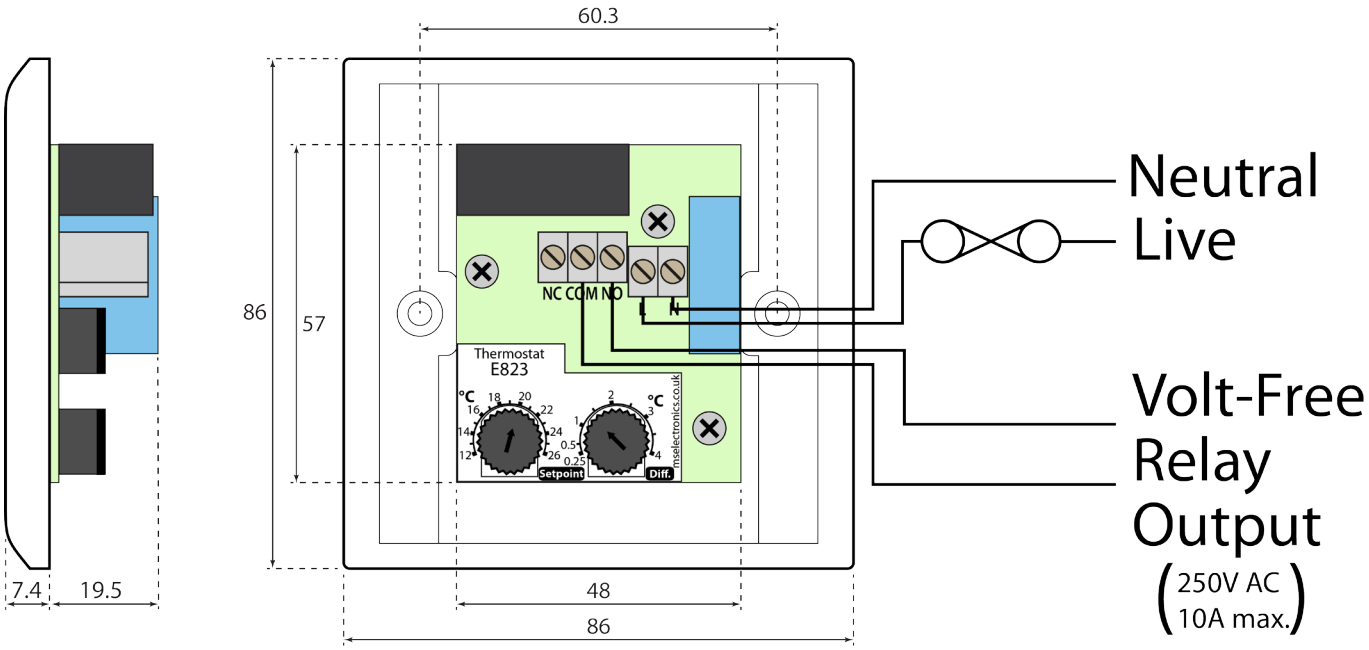
The E823 offers an accurate, high quality contemporary solution to temperature control.

3 LED indicators are provided on the front of the unit to illustrate the currently detected temperature level. When the green LED is illuminated it indicates that the temperature is at the desired setpoint. When either red LED is illuminated it indicates that the temperature level has fallen outside the hysteresis (differential) zone around the desired setpoint. This temperature indication allows the room user or maintenance team to easily monitor the surrounding temperature level and take additional action if the current method of restoring the temperature level is not working sufficiently.

Product Wiring

1. **IMPORTANT**: ensure all electrical connections are isolated before commencing any work on the unit.
2. Power to the thermostat is provided via the Live and Neutral input terminals labelled “L” and “N” (230V AC, 50Hz).
3. A voltage-free changeover relay output capable of switching loads of up to 10A, 250V AC (resistive) is provided by the thermostat at the “NC, COM, NO” terminals.
4. The Common “COM” terminal is connected to the Normally Closed “NC” terminal when the sensed room temperature is above the selected temperature.
5. Conversely, it is connected to the Normally Open “NO” terminal when the room temperature is sensed to be below the selected temperature.

Figure 1 Typical wiring example



Installation

1. **IMPORTANT**: ensure all electrical connections are isolated before commencing any work on the unit.
2. The unit is designed to be mounted in any single-gang British Standard pattress box (surface or flush mounted) which has a minimum internal depth of 20mm.
3. Ensure best-practices are used when choosing a location for the thermostat so that optimal thermostatic control is achieved. Do not mount near drafts, heaters, radiators, air conditioners, in direct sunlight or any other place where the sensed temperature may be unnaturally influenced. A good mounting height is typically between 1m and 2m from the floor.
4. Connect the wiring as shown in Figure 1 (or any suitably appropriate form) via the screw-terminals. Make sure to choose the correct output terminals that are suitable to your application.
5. Adjust the internal thumbwheels to suit the desired operational requirements (see below).
6. Affix the thermostat to the pattress box using the supplied M3.5 raised-countersunk screws then finally insert the screw-caps for a neat finish.
7. The screw caps may be removed without damage using a sticky putty such as blu-tack.

Operation

1. **IMPORTANT**: ensure all electrical connections are isolated before commencing any work on the unit.
2. Adjust the setpoint (“Setpoint”) dial to the temperature the room is to be regulated to in the ‘Med’ mode (typically 20ºC).
3. Set the differential (“Diff.”) to the total temperature swing either side of the resulting setpoint that the room temperature is required to keep within (typically 1°C).
4. Example set-up:
   Setpoint set to 20ºC, Differential set to 1ºC.
   The unit will maintain the temperature between 19.5ºC and 20.5ºC (Green LED is lit).
   The corresponding Red LED will light if the sensed temperature falls below 19.5ºC or above 20.5ºC.

Technical Specification	
Power supply:	220V - 240V AC 50Hz (live/neutral)
Output switch rating:	10A, 250V AC 50Hz (resistive)
Output switch type:	Changeover relay (volt-free)
Temperature control:	+12°C to +26°C
Temperature differential:	0.25°C to 4°C
Sensor accuracy:	±0.2°C
Sensor drift:	0.15°C over 5 years
Guarantee:	5 Years
Weight:	90g
Dimensions:	86mm x 86mm x 27mm

Product Accessories	
MSD-154	M3.5 tamperproof screws
MSD-155	Tamperproof screwdriver for MSD-154 screws

IMPORTANT INSTALLATION NOTICE

The installation of this product should be carried out in accordance with the latest IEE wiring regulations and all wiring completed by a qualified electrician.

Technical Support

For further help or information on this and the other products in the MS Electronics range visit www.mselectronics.co.uk or call 0333 666 1176.

Alternatively, email techsupport@mselectronics.co.uk
Additional copies of this product guide can be downloaded from our website.

Product Warranty

MS Electronics guarantees all their products against manufacturing defects for 5 years from the purchase date. If your product is found to be faulty, MS Electronics will, at their discretion, repair or replace the product free of charge.

Note

Any modification or damage to the outer casing of the product, as well as any damage to the product due to abuse or incorrect wiring may invalidate the guarantee.

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