Installation & Calibration Guide

Airflow Monitor
AFA500 MK2

Startup

The AFA500 must be field-calibrated once the room air supply and exhaust is balanced. When the unit is powered up, the following sequence of events occurs:

1. The alarm performs a self-test of its functions, LEDs and audible alarm (approximately 2 seconds) and then initiates a delay timer of 30 seconds to allow the airflow sensor to stabilize.
2. During the 30-second stabilizing period, all alarms and relay outputs are deactivated and the red and green LEDs remain on.
3. At the end of the delay, the unit will do one of two things:
   a. If the monitor has been calibrated, the unit enters normal operating mode (solid green light for safe velocity, red light and audible alarm if low velocity).
   b. If the unit has not been calibrated, the red and green LEDs will flash, the audible alarm will be muted.

Calibration - Single Point (default)

1. Determine the required low air alarm point, then position the sash and use a calibrated instrument so that the face velocity is equal to the required alarm point.
2. Press and hold the ENTER button for 5 seconds to enter Calibration Mode. This is indicated by both red and green LEDs flashing with the audible alarm beeping.
3. To initiate calibration, press and hold the ENTER and SET buttons at the same time. The unit will sample the airflow for 5 seconds, during which time the green LED goes off and the red LED flashes. The audible alarm continues to sound during the air sampling.
4. If calibration is successful, the monitor will give a two-tone beep at the end of the air sample, and then automatically enter run mode.
5. If the ENTER or SET button is released during the air sampling period, or if the airflow is fluctuating too much, the alarm will emit a lower-frequency buzzing for a short period and then re-enter calibration mode. If this occurs, press the ENTER and SET buttons again to repeat the airflow sampling.
6. When the calibration is complete, lower the sash to the normal operating height and the Green LED should be illuminated, indicating that the airflow is greater than the calibrated alarm point. If, during normal operation, the airflow drops below the alarm point, the unit will go into alarm condition (red LED flashing, audible horn beeping). Push the enter button to temporarily mute the horn.
7. The horn can be permanently disabled by pressing and holding the SET button for 10 seconds. The horn will sound 3 times to indicate that it has been disabled. In Safe mode the Green LED will flash if the horn is disabled or be solid to indicate that the horn is enabled. To enable the horn press and hold the SET button for 10 seconds, the horn will sound 3 times to indicate that it has been enabled.

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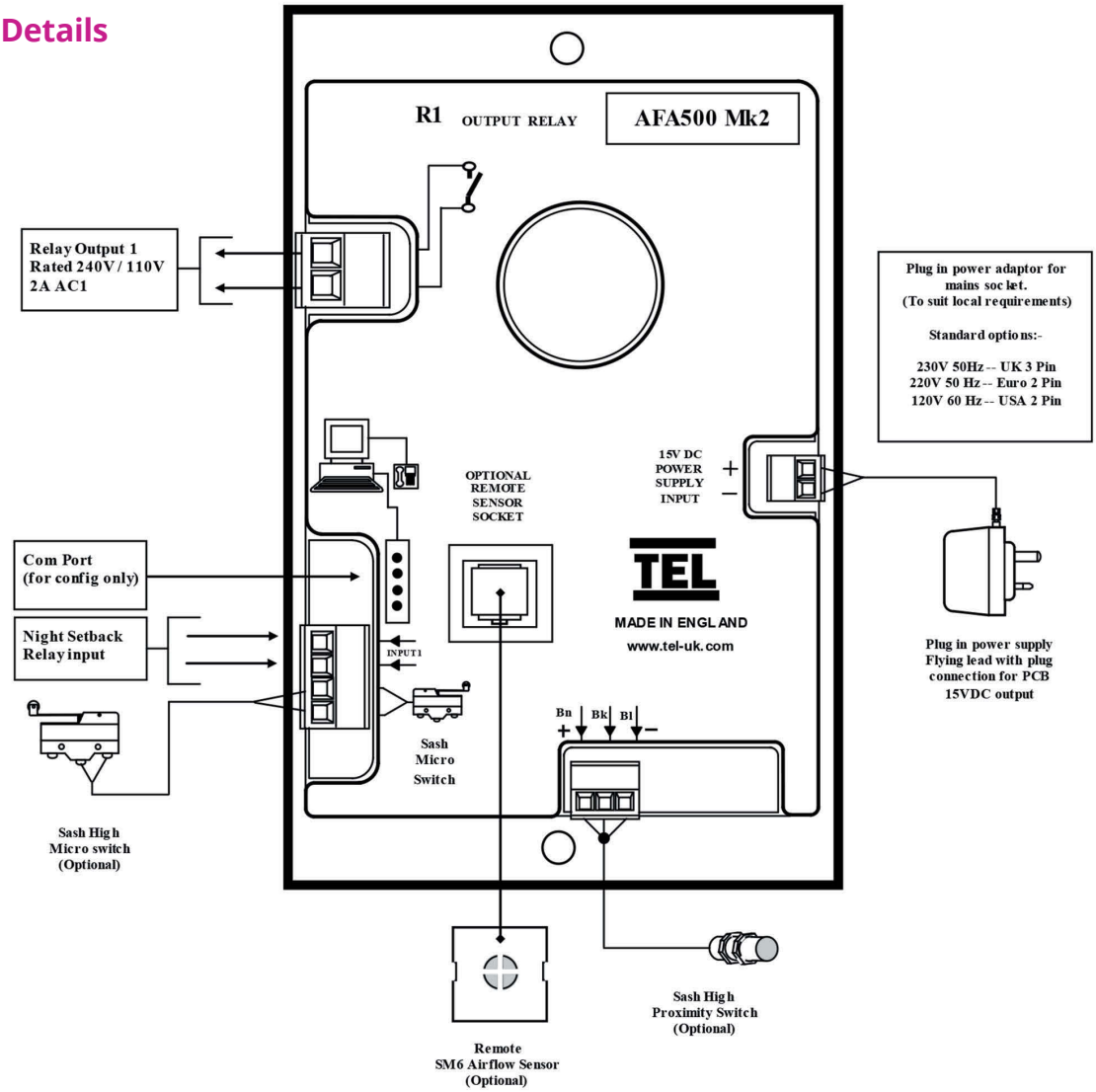
Connection Details



Operation

Horn	Red LED	Green LED	Operation
Beep* 1	On	On	Power up 30 second time period to allow sensor stabilization
Off	Flashing	Flashing	Requires Calibration - follow calibration procedure
Off	Off	On	Air SAFE - audible alarm enabled
Off	Off	Flashing	Air SAFE - audible alarm permanently disabled
On	On	Off	Air Fail
Off	On	Flashing	Air Fail - Setback mode (remote horn mute activated)
On	Flashing	Off	Sash High alarm

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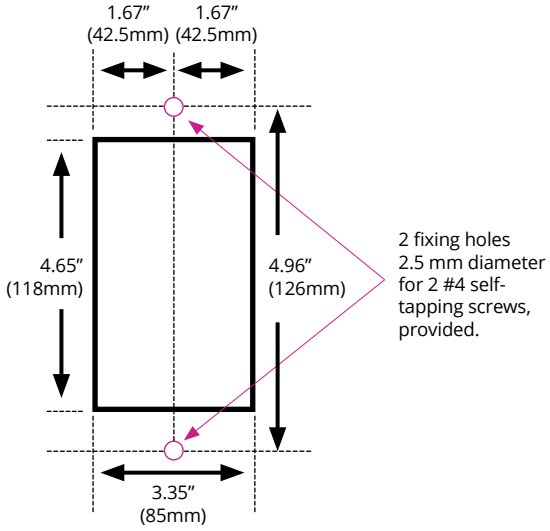
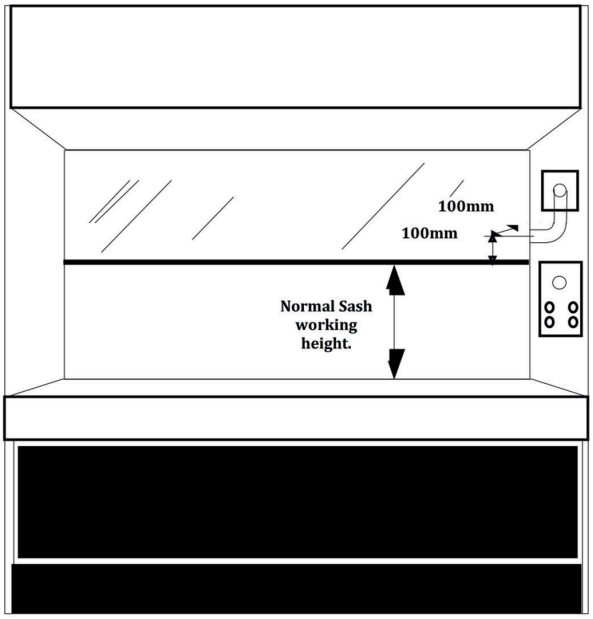
Monitor Panel Dimensions

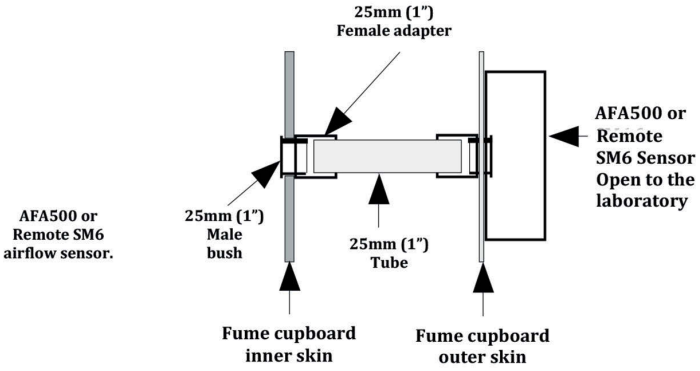
Monitor Panel Cutout Dimensions

(NOT shown to scale)



AFA500 or Remote Airflow Sensor Installation Diagram





The monitor or sensor must be positioned where it can"see" the room pressure of the laboratory. The back connection spigot of the monitor or sensor will accept the 25mm (1") hose which should be connected to the inner chamber of the Fume Cupboard. The ideal position for the hose connection is 100mm (4") back from the sash and 100mm (4") higher than the normal sash opening height.

For complete manual and product information, log on to **www.tel-uk.com**

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