

APPLICATION NOTE

Sensor Analogue Value Readings

TCH-B100/TCH-B200

This Application Note explains how to read and interpret the analogue values that are displayed on the ESP Hand Held Programmer.

The TCH-B100/TCH-B200 is a hand held address programmer used to address sensors, wall sounders and other devices from the ESP Range. However, this product can also be used for reading the analogue values of the ESP sensors.

Listed below are the sensor types and a range of values that could be displayed on the programmer.

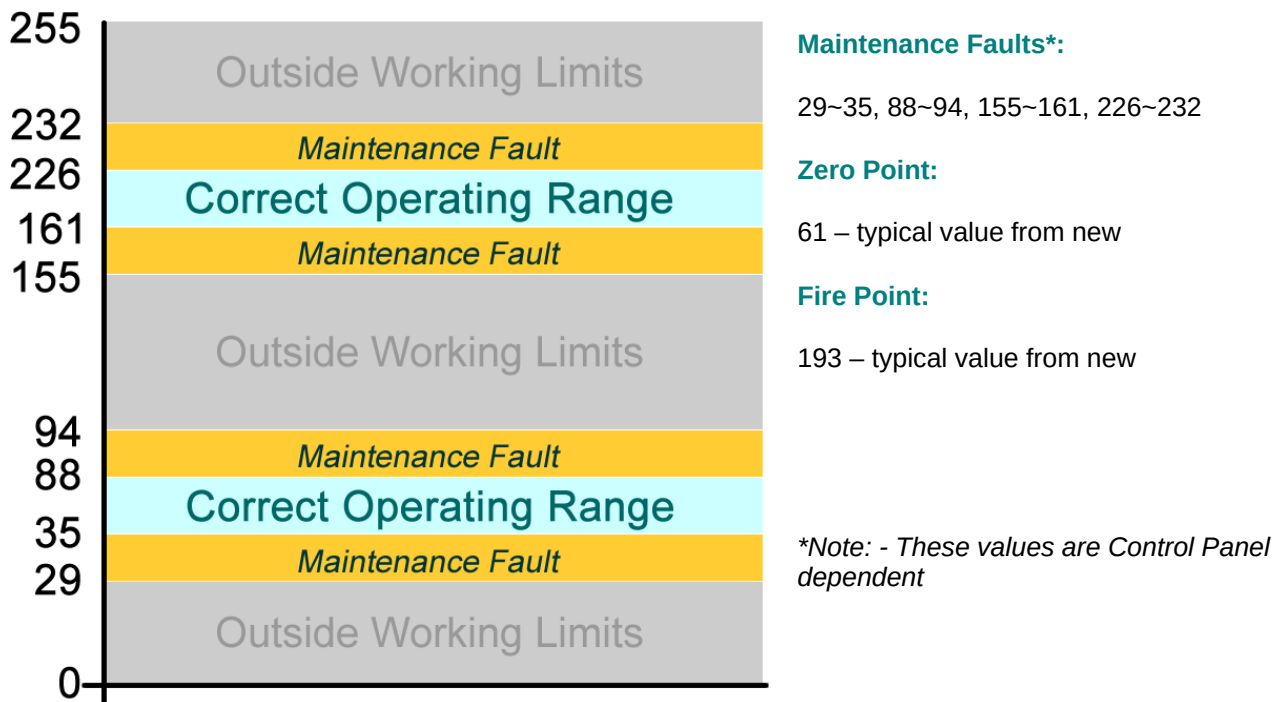
To read the analogue values of the sensor simply clip the sensor onto the programmer, then using the left hand grey button, switch the programmer on, after a few seconds the sensor address should be displayed. If the red/blue button is then operated the analogue value should be displayed, this is constantly updated every second.

The tables below show the typical operating ranges for each type of sensor, (these ranges may vary depending on the Control Panel being used). If the sensor values fall outside of these, then a maintenance fault may be displayed (this is Control Panel dependant as this feature is optional) the sensor will then require cleaning and possibly re-calibration.

NOTE: The TCH-B100/TCH-B200 will only read the Zero Point of the sensor

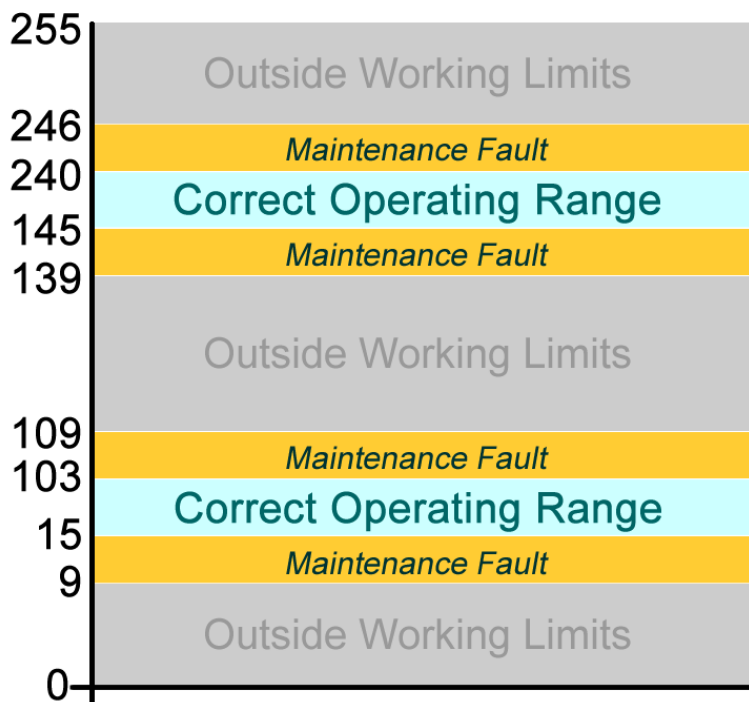
Photoelectric Smoke & Multi Sensor Operating Ranges

ALG-EN, ALN-EN, ALN-ENM, ACA-EN, ACC-EN, ACC-ENM



Ionisation Smoke Sensor Operating Ranges

AIE-E



Maintenance Faults*:

9~15 103~109 139~145 240~246

Zero Point:

61 – typical value from new

Fire Point:

193 – typical value from new

**Note: - These values are Control Panel dependent*

Heat Sensor Operating Ranges

The heat sensor analogue value is a direct correlation of the temperature in the room, therefore there is no graph displaying values, as these will vary accordingly. However, from looking at the analogue value being displayed by the programmer the temperature in °C can be calculated using the simple formula below:

$$\text{Temp in } ^\circ\text{C} = \frac{\text{Analogue Value on Programmer} - 20}{2}$$

Example, where analogue value is reported as 62:

$$\text{Temp in } ^\circ\text{C} = \frac{62 - 20}{2} = 21^\circ\text{C}$$



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