

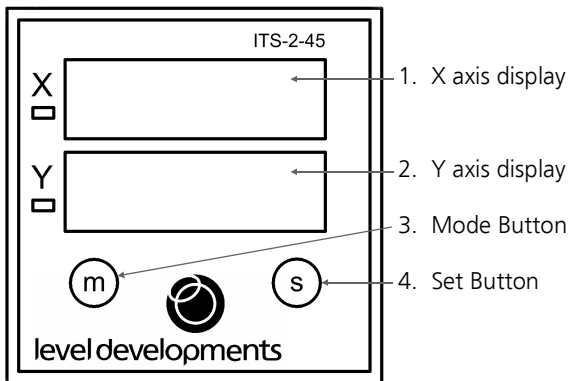


Introduction

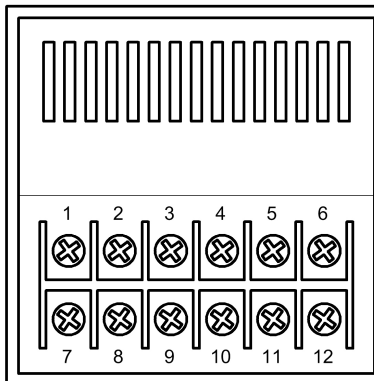
The ITS-2-45 is a dual axis inclinometer sensor and a two axis display unit with integral tilt switches. The sensor contains a calibrated MEMS sensor and transmits an RS232 format output to the display unit. The display consists of two LED displays, one for each of the X and the Y axis. The two buttons, 'm' and 's' allow a temporary alternate zero to be set, and for the X and Y axis tilt switch thresholds to be programmed.

Display Unit

Front Panel



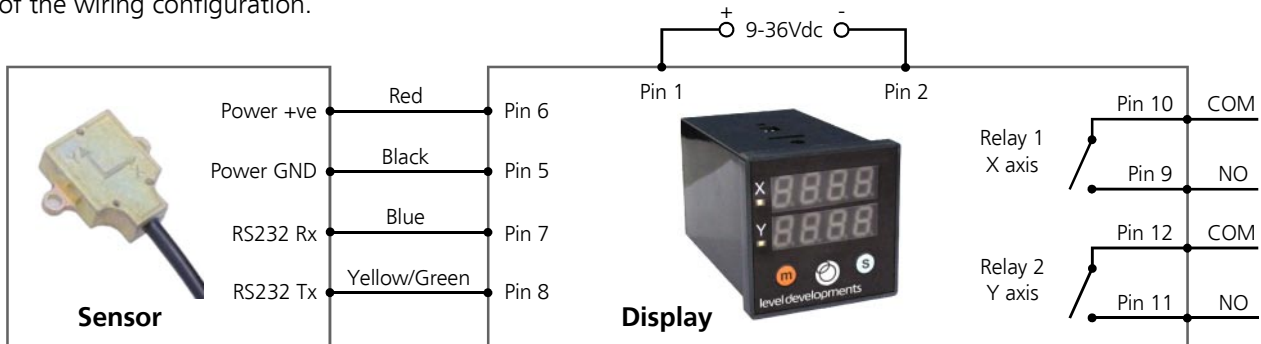
Rear Panel



1. Power, 9-36Vdc
2. Power, GND
3. Not Connected
4. Not Connected
5. Sensor GND
6. Sensor +5Vdc
7. RS232 Transmit (Tx)
8. RS232 Receive (Rx)
9. Relay 1 (X axis), NO
10. Relay 1 (X axis), COM
11. Relay 2 (Y axis), NO
12. Relay 2 (Y axis), COM

Connections

The sensor connects to the display with the 4 wires as shown below. The sensor takes it's power from the display unit. The display unit needs a separate connection for it's own power. Please see the diagram below for full details of the wiring configuration.



Button Functions



The 'mode' button toggles the display between the 4 modes as detailed below.



The 'set' button sets the display parameters depending on the current mode.

Mode	Description	Operation
1	Normal Operating Mode	LED displays indicate X and Y axis angles from sensor
2	Relative Zero Set Mode	Both LED displays indicate 0011 Press the 'set' button to start the relative zero process. The displays will then flash alternatively 0000 0000 in the X and Y displays. Press and hold the 'mode' button for 2s. After releasing the displays will return to 0011 . Press the mode button 3 times to return to mode 1. Relative mode will be cancelled after a power reset.
3	X axis tilt switch threshold set	LED displays indicate the tilt switch trip threshold. The X axis display indicates the X axis trip threshold (for relay 1), and the Y axis indicates the Y axis trip threshold (for relay 2). The factory default is 10° for both tilt switches. Press the 'set' button to enter the edit mode for the X axis tilt threshold. Then press the 'set' button repeatedly to adjust the threshold in 1 degree steps. Finally press the 'Mode' button to store the new tilt threshold value.
4	Y axis tilt switch threshold set	As above, but for adjusting the Y axis tilt switch threshold