Introduction of Junction Box

1) Function

It allows indicator to connect with several load cells by outputting signal to indicator. 4-wire, 6-wire,8-wire can receive the signals from 4 load cells, 6 load cells, 8 load cells correspondingly.

The potentiometer inside the junction box can adjust the excitation of the load cell thus can make each load cell output the same signal.

2) Connection method

A. The “OUT” connection point is the output which send signal to the indicator. Connection point “A/B/C/D/E/F/G/H” is the input which receive signal from the load cell.(The input quantity varieties according to the quantity of the load cell it can connect). For example, if the junction box is 6-wire, the connection point is “A/B/C/D/E/F”.

B. Below each connection point, there is mark for connection. From left to right, the mark is “E+”,“E-”, “≡”,“IN+”,“IN-”, the detail information for each mark is as following:

“E+”: + excitation for load cell;

“E-”: - excitation for load cell;

“≡”:Shielded cable;

“IN+”:+ signal from load cell;

“IN-”: - signal from load cell;

3) Adjust method

A. Adjust the junction box when there is no power supply. The resistance of each potentiometer should be adjusted to 10 om. (Contrarotate the potentiometer, the resistance will be smaller while turn the potentiometer clockwise, the resistance will be bigger).To get the resistance of each potentiometer, for example A point, then put one end of the multimeter at “E+” of “OUT” connection point, the other end at “E+” of “A”, you can get resistance of “A+” potentiometer; if put one end of the multimeter at “E-” of “OUT” connection point, the other end at “E-” of “A”, you can get resistance of “A-” potentiometer;

B. Turn on the power of the indicator, calibrate by enlarging 10 times(for example, the actual weight is 10KG, then calibrate to 100KG). If the indicator has inner code display, then calibrate to the actual weight, then go to the inner code display.

C. Put the weight with 1/3 value of the full range at each location of the load cell, record the display of the indicator. Adjust the potentiometer inside the junction box until the display difference of each load cell is less than 0.2E, please adjust as following:

If the display of one load cell is too big, turn the two potentiometers of this load cell clockwise; if the display is too small, contrarotate of the two potentiometers of this load cell. Attention: The two potentiometers should have the same increase or decrease.

For example, now the connection point is A, then after adjust the voltage, you can test the voltage at A+ and A-.Just put one end of the multimeter at “E+” of “OUT” connection point, the other end at “E+” of “A”, you can get voltage of “A+” potentiometer; put one end of the multimeter at “E-” of “OUT” connection point, the other end at “E-” of “A”, you can get voltage of “A-” potentiometer;

D. After adjust, then calibrate again.

4) The diagram is as following: