FBs-1HLC Precision Load Cell Module

Specification	
Power supply	DC24V
Net weight	127 gram
Operation temperature	-10°C to + 40°C (+14°F to + 104°F)
Operation humidity	~ 85% humidity(non-condensing)
Dimension	90 (L) x 40 (W) x 80 (H) mm
Input signal and A/D transfer	
A/D Method	24Bits △ Σ
A/D Speed	100 times/sec
Load Cell power	DC 5V ±5% , 120mA (support 8 pcs. 350 Ω load cell)
Max. Voltage	-1mV ~ 39mV
Input resolution	Over 0.15μV/D, 1 / 60000 d
Digital function	
Status	POWER、MD、ZERO、NET、GROSS
Min. Readability	1、2、5、10、20、50
Memory	Parameter adjustment & function setting in EEPROM
Features	
1.Industrial grade weighing control design to fit different tough environments	
2.Anti-noise to efficiently decrease electricity/EMI/RFI interferences	
3.Compact size, high precision and excellent performance	
4.Adjustable digital filter can minimize the vibration from the environment	
5.Flexible adjustment and auto-stable detection	
6.Auto-zero tracking to minimize zero drift	

Functions

Function	Description
GROSS	Gross weight
NET	Net weight
ZERO	Gross weight = 0
MD	To indicate the stable status in determinate conditions and can be determined by time and range of instability tracking
Zeroing	Allows to reset the display reading back to zero (permitted when weight receiving device is empty)
Tare	To deduct the weight of the container used to load the objects to be weighed.
Clear tare	To clear tare weight and gross weight will be displayed
Zero tracking	To automatically maintain zero display in determinate range. Conditions can be determined by time and range of the zero tracking.
A/D internal value	Converts weighing analog signal to digital value
Display value	Actual weight value after spec calibration and weight calibration,
SPAN weight	The weight value of standard weight during calibration
Error message	Errors occurred during calibration
Min. readability	The minimum measurable range
Calibration Zero key	Zero key for calibration
Calibration SPAN key	SPAN weight key for calibration (must set SPAN calibration weight value first)
A/D sample rating	MCU to A/D reading speed (value after filter)
Save EEP	Save data to EEPROM

Remarks : Refer to Modbus chart

Adjustment

Zero Calibration

The weight receiving devise (platform or hooper) must be empty

→ Press the calibration zero key

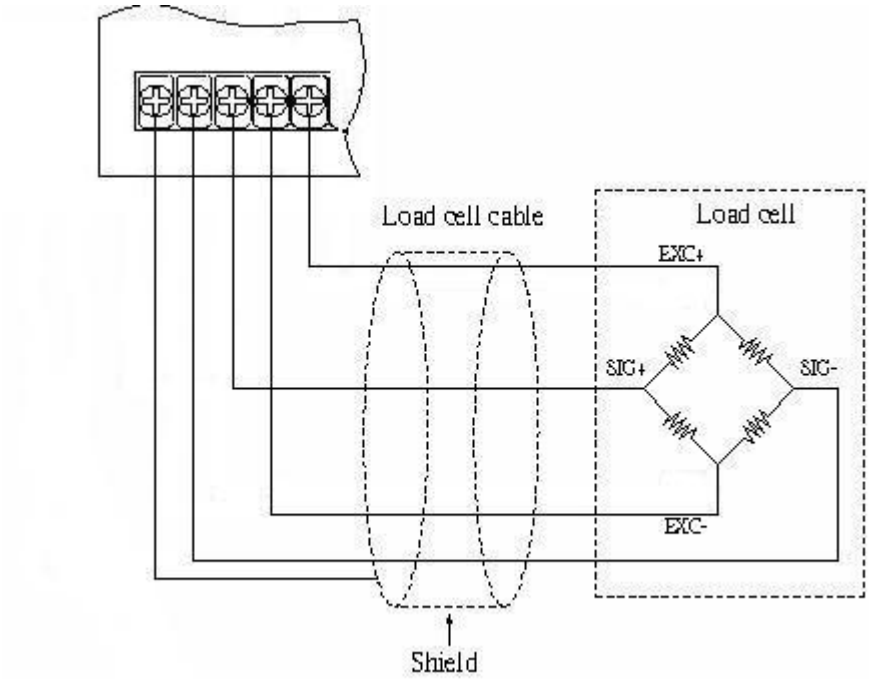
→ Refer to Modbus(FUN150) for zero calibration

Weight Calibration

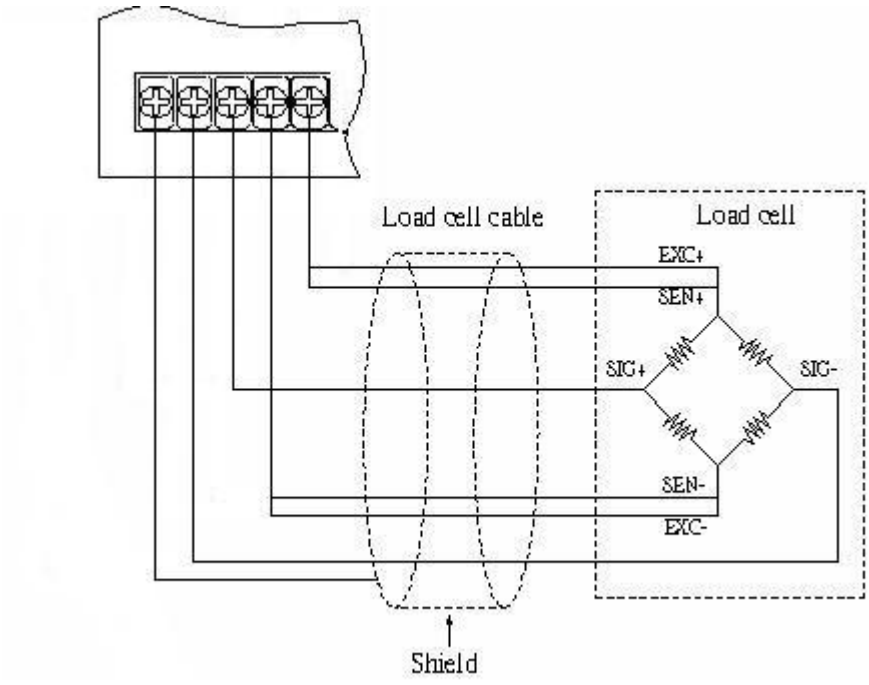
Put known weight (standard calibration weight) onto the platform or hooper
→Enter the weight value (within SPAN calibration weight. 2Word) and wait until the system has stabilized
→ Press the calibration SPAN key
→ Refer to Modbus(FUN150) for SPAM calibration (2Word).

LOAD CELL Wiring

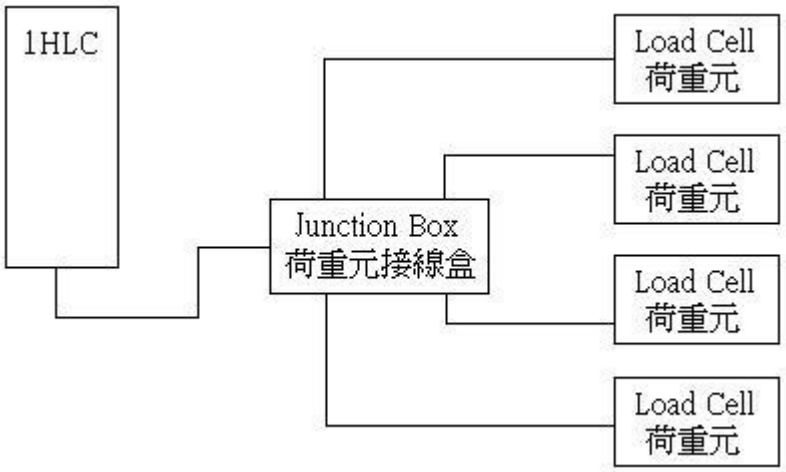
4-line wiring



Six-line wiring



FBs-1HLC wiring to more Load Cell



Load Cell

Load Cell (weight sensor) is the sensor in the scale generally made of a strain-gage in a metal elastomer and when it is pressed or pulled, a deformation occurred and converted into voltage output signal.