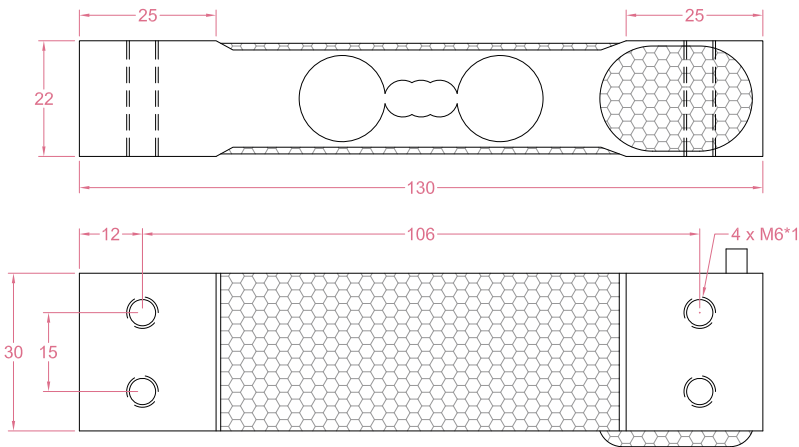
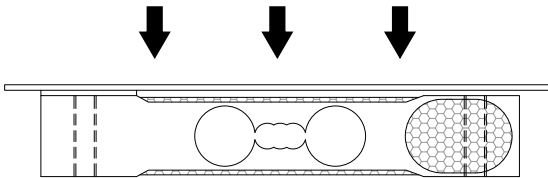




Dimensions in "mm"



Suitable for off center load measurement.
Platform size goes up to 250x350mm



Wiring code	
Red	Power+
Black	GND
Green	A / RD
White	B / TD

Ordering part No.: Model-Interface-Baud rate-Capacity-Cable length				
Model	Interface	Baud rate	Capacity (kg)	Cable length (m)
RTUB	1: RS485 2: RS232	A: 115200	3	Specified by customer
		B: 57600	6	
		C: 38400	10	
		D: 19200	20	
		E: 9600	30	
Example: RTUB-1-A-10-0.4 means: Model: RTUB Interface: RS485 Baud rate: 115200 Capacity: 10kg Cable length: 0.4 meter				
Minimum order quantity: 5pcs Please consult sales for other specifications.				

Specifications							
Rated Capacity	3kg	6kg	10kg	20kg	30kg	40kg	50kg
Resolution	0.1g	0.2g	0.2g	0.5g	1g	1g	1g
Output	RS485 or RS232		Safe Load Limit		150% F.S.		
Excitation	5~12V DC		Operating Temp.		-20...+60°C		
Nonlinearity	±0.02% F.S.		Temp. Coeff. of Zero		±0.002% F.S./°C		
Hysteresis	±0.02% F.S.		Temp. Coeff. of Span		±0.002% F.S./°C		
Nonrepeatability	±0.01% F.S.		IP Rating		IP62		
Creep(30min)	±0.02% F.S.		Element Material		Aluminum alloy		
Cable	OD 4mm, 4-conductor, length specified by customer						

• LCS reserves the right to modify its design and specifications without notice





Application notes

Weight changes smaller than the sensor's resolution may not be detected. Over time, these undetected micro-changes can accumulate, resulting in increased measurement error.

For this reason, the sensor is **not recommended** for applications involving very slow or gradual weight changes, such as:

- Plant growth monitoring
- Gradual consumption of printing materials
- Liquid evaporation or vaporization monitoring
- Natural food drying and dehydration
- Corrosion or oxidation mass-loss monitoring
- Animal metabolism research
- Long-term dust accumulation measurement

The sensor is well suited for applications that involve measurable weight changes or discrete loads, including:

- Component counting
- Smart shelf weighing
- Coffee machine weight monitoring
- Batching or ingredient dosing
- Underweight/overweight detection
- Waste weighing and vending machine inventory management
- Pet food dispenser weighing
- Smart recycling bins
- Smart lockers and automated pickup stations
- Fruit and vegetable grading scales

Please contact our sales team if you are unsure whether this model is suitable for your application.



Modbus RTU protocol

Data format: 1 start bit, 8 data bits, no parity check, 1 stop bit.

Function code

Function code	Description
03	Read data(R)
10	Write data(W)

Register address and content

Register address	Corresponding content/function
0001	Weighing data
0001	Zero point calibration
0007	Zero resetting(Tare)
000F	Load cell address

Command: Set load cell address (Can be set before shipment)

Send command: FF 10 00 0F 00 02 04 00 00 00 nn CRC16

Broadcast code
Function code
Register address
No. of register
No. of byte to be written
Address

Return data: nn 10 00 0F 00 02 CRC16

Address code
Function code
Register address
No. of register

Note: Only one address can be set at a time. To set address for multiple load cells, clients need to connect one sensor at a time and set the address one by one.

Command: Zero point calibration (Saved when power off)

Send command: nn 10 00 01 00 02 04 00 00 00 01 CRC16

Address code
Function code
Register address
No. of register
No. of byte to be written

Return data: nn 10 00 01 00 02 CRC16

Address code
Function code
Register address
No. of register

Example: (Zero point calibration for address 01) :

Send: 01 10 00 01 00 02 04 00 00 00 01 F3 A3

Return: 01 10 00 01 00 02 10 08

Command: Zero resetting (Tare, NOT saved when power off)

Send command: nn 10 00 07 00 02 04 00 00 00 01 CRC16
Address code Function code Register address No. of register No. of byte to be written

Return data: nn 10 00 07 00 02 CRC16
Address code Function code Register address No. of register

Function: Tare current weight value
 Example: (Tare the sensor with address 01) :
 Send: 01 10 00 07 00 02 04 00 00 00 01 73 89
 Return: 01 10 00 07 00 02 F0 09

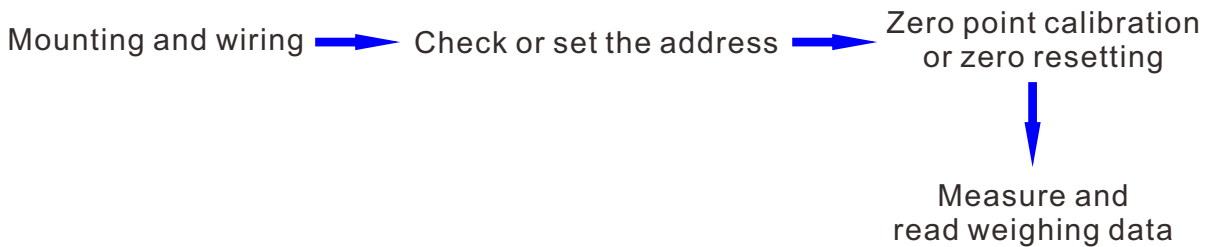
Command: Read weighing data

Send command: nn 03 00 01 00 02 CRC16
Address code Function code Register address No. of register

Return data: nn 03 04 HG FE DC BA CRC16
Address code Function code No. of byte returned Weighing data CRC16
H=0: Positive
 H=1: Negative
 G=0: Not stable
 G=1: Stable F: Decimal places
 EDCBA: Weight value in hex without decimal point

Example one (Weight value -1.000) :
 Send command: 01 03 00 01 00 02 95 CB
 Return data: 01 03 04 11 30 03 E8 FF BE
 Example two (Weight value 120.000) :
 Send command: 01 03 00 01 00 02 95 CB
 Return data: 01 03 04 01 31 D4 C0 F5 50

Load cell operating procedures:



Note: The address will be pre-set after confirmation with the customer, and the calibration will be completed before shipment. If the customer later needs to change the parameters or recalibrate the sensor, we will provide the instructions after the new parameters are confirmed.