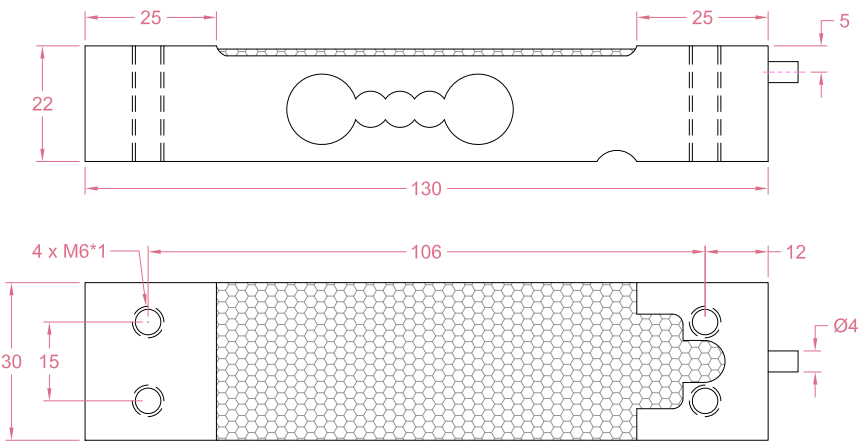
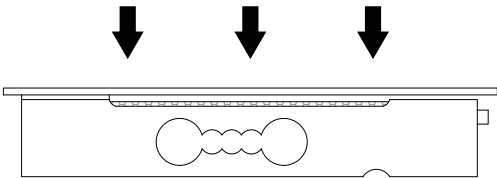


Dimensions in “mm”



Suitable for off center load measurement.
Platform size goes up to 300x300mm



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	Cable length
RTUB	485: RS485 232: RS232	A: 115200 B: 57600 C: 38400 D: 19200 E: 9600	3kg 5kg 10kg 20kg 30kg 40kg	Specified by customer
Example: RTUB-485-A-10kg-0.4m means: Model: RTUB Interface: RS485 Baud rate: 115200 Capacity: 10kg Cable length: 0.4 meters				
Minimum order quantity: 5pcs Please consult sales for other specifications.				

Specifications						
Rated Capacity	3kg	5kg	10kg	20kg	30kg	40kg
Resolution	0.1g	0.2g	0.5g	1g	2g	2g
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		±0.005% F.S./°C	
Hysteresis	±0.02% F.S.		Temp. Coeff. of Span		±0.003% 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

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				
			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

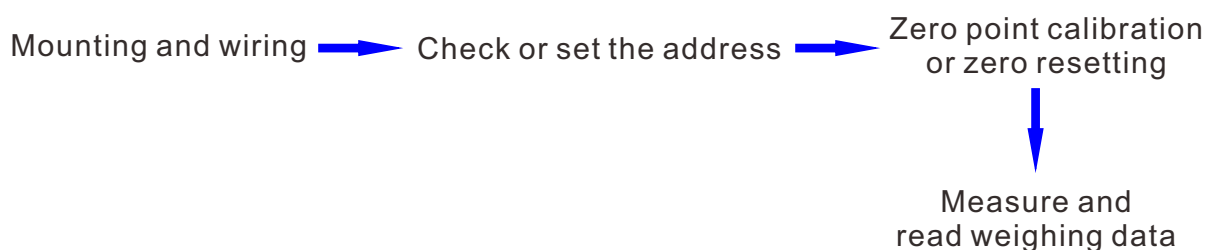
Return data: 01 03 04 11 30 03 E8 FF BE

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 sensor will be calibrated before shipment. If customer wants to recalibrate the sensor, we will send the calibration procedures after confirming the parameters with the customer.

