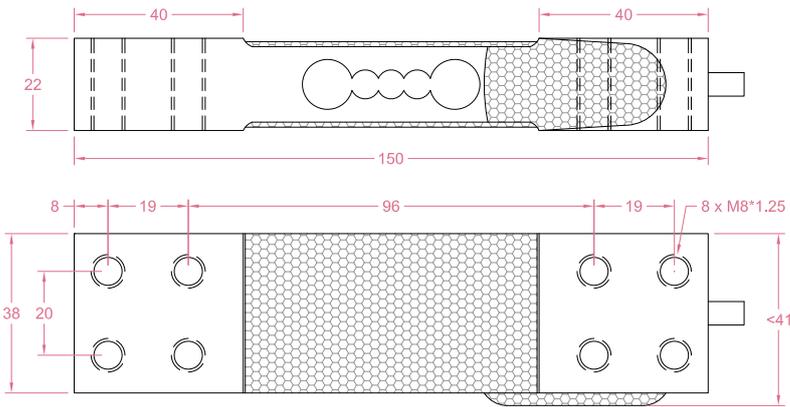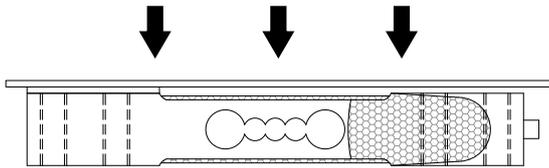Dimensions in "mm"

Suitable for off center load measurement.
Platform size goes up to 400x400mm

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)
RTUC	1: RS485 2: RS232	A: 115200 B: 57600 C: 38400 D: 19200 E: 9600	40 60 100 150	Specified by customer

Example: RTUC-1-A-100-1 means:
Model: RTUC
Interface: RS485
Baud rate: 115200
Capacity: 100kg
Cable length: 1 meter

Minimum order quantity: 5pcs
Please consult sales for other specifications.

Specifications

Rated Capacity	40kg	60kg	100kg	150kg
Resolution	1g	2g	2g	5g
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 5mm, 4-conductor, length specified by customer			

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

P:1/4

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Made in China,ship worldwide
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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

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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
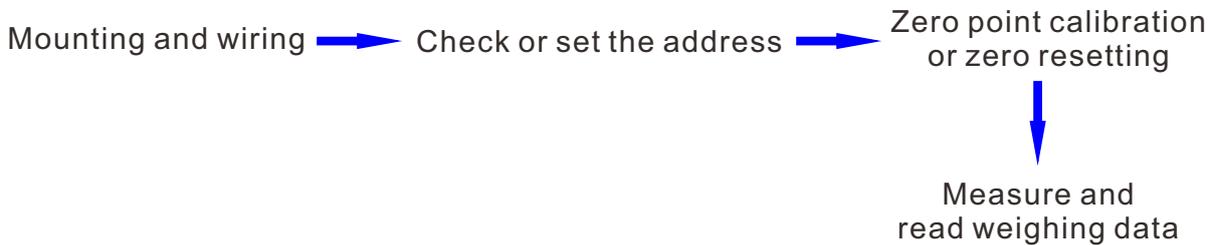
Return: 01 10 00 07 00 02 F0 09

Command: Read weighing data

Send command:

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

Return data:

Weighing data

nn	03	04	HG	FE DC BA	CRC16
Address code	Function code	No. of byte returned	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:

Mounting and wiring → Check or set the address → Zero point calibration or zero resetting

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Measure and read weighing data

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.