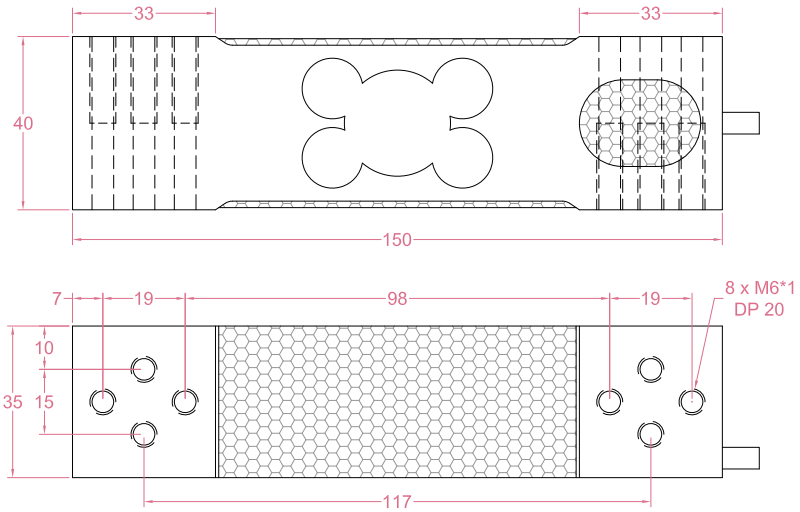
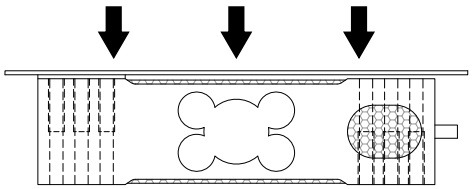
Model:RTUF

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	Cable length
RTUF	485: RS485 232: RS232	A: 115200 B: 57600 C: 38400 D: 19200 E: 9600	60kg 100kg 200kg 350kg	Specified by customer

Example: RTUF-485-A-200kg-1.5m means:
Model: RTUD
Interface: RS485
Baud rate: 115200
Capacity: 200kg
Cable length: 1.5 meters

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

Specifications			
Rated Capacity	60kg	100kg	200kg	350kg
Resolution	0.002kg (2g)	0.005kg (5g)	0.01kg (10g)	0.02kg (20g)
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

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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 (Broadcast code) 10 (Function code) 00 0F (Register address) 00 02 (No. of register) 04 (No. of byte to be written) 00 00 00 nn (Address) CRC16

Return data: nn (Address code) 10 (Function code) 00 0F (Register address) 00 02 (No. of register) CRC16

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 (Address code) 10 (Function code) 00 01 (Register address) 00 02 (No. of register) 04 (No. of byte to be written) 00 00 00 01 CRC16

Return data: nn (Address code) 10 (Function code) 00 01 (Register address) 00 02 (No. of register) CRC16

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 (Address code) 10 (Function code) 00 07 (Register address) 00 02 (No. of register) 04 (No. of byte to be written) 00 00 00 01 CRC16

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

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

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

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 → Measure and read weighing data

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.

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