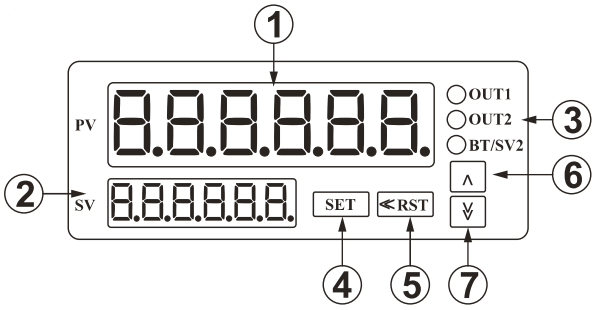
LH series weighing batching controller
Instruction manual

Thanks a lot for selecting our products.
Before operating this instrument, please carefuly read this manual and fully understand contents. If any problems, please contact our sales distributor whom you bay from. This manual is subject to change without prior notice.

Application

The instrument provides isolated auxilary power (regulary 5V/80mA) witch allows 1-4 kind loadcells connection directly. Up to 6 controll outputs are available for group ingredients weighing of fast/slow weighing. Data/Peak value holding function for choice. RS485 communication interface provides remote link with PC/PLC. Besides you can Start/Pause/Accumulate/Clear/Tare weight/average/clear zero, etc. for the displaying weight with external control terminal.

Code illustration

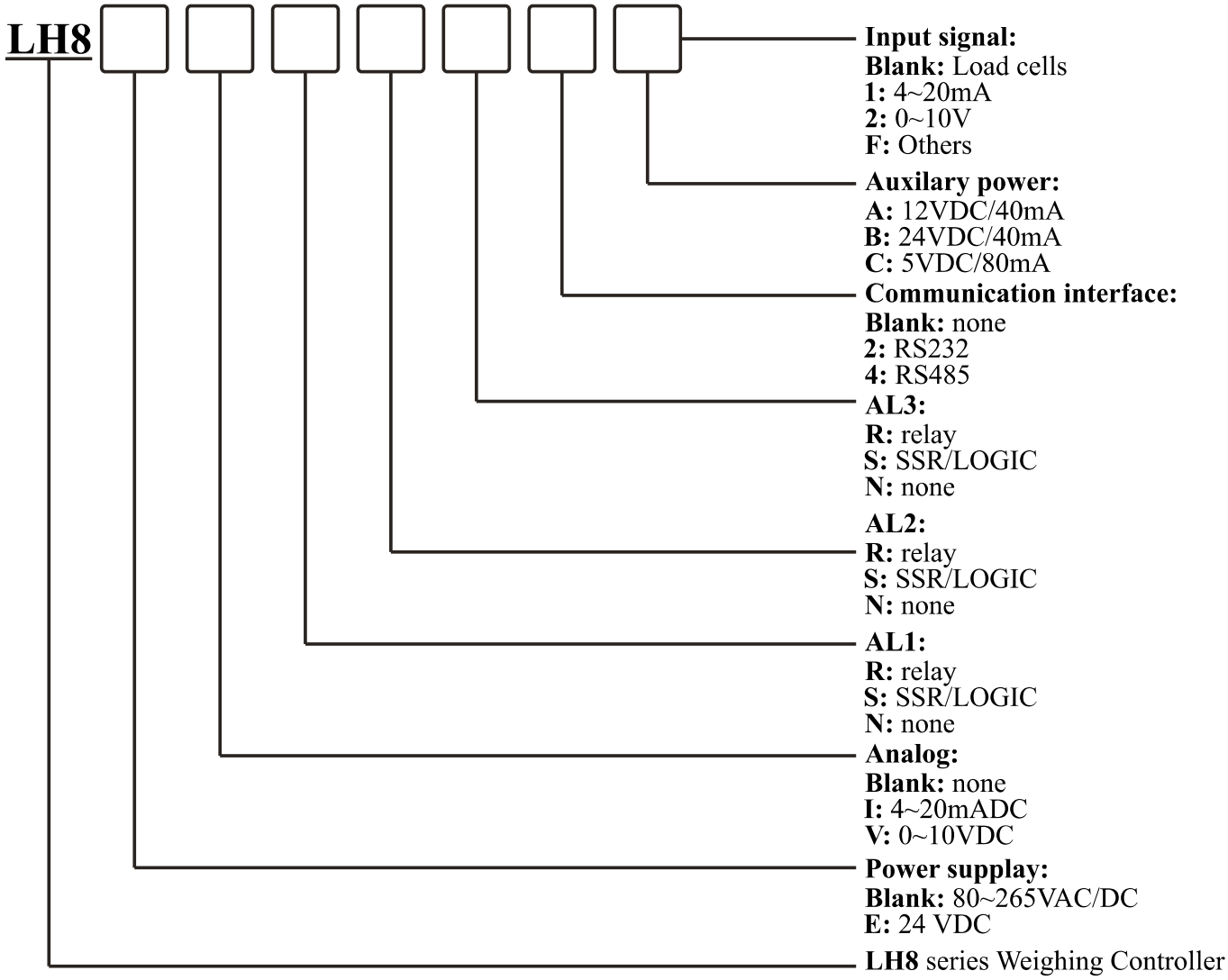


1. Measuring values / Parameter code display
2. Parameter value / Preset value
3. Control output indicate lamps: On: active, Off: inactive
   Out1, Alarm1, Out2, Alarm2, BT/SV2:Alarm3
4. Parameter select / Confirm key
5. Shift key / Tare weight Clear key
6. UP key
7. DOWN key

Specification

Power	90~260 VAC/DC or 15~30VAC/DC
Power consumption	≤5VA
Accuracy	0,1%FS ±2 digit (24bit A/D conversion)
Sampling speed	16~128 times/second
Relay	250VAC/3A or 30VDC 3A cosφ = 1
Input	mV(ladcell)
Analog output	4~20mA output configurable by software
Auxillary power	5VDC 80mA
Commmunication	RS485 MODBUS RTU protocol
Mounting dimensions	$91^{+0.5}$ x 45^{+05}

Code illustration



Parameters setting

1. Parameter setting: In displaying estate,

a. Press and hold SET key >3s, enter/quit parameters setting menu,
b. Press <</RET key, LED flashes
c. Press UP/DOWN key to modify
d. Press SET key to confirm
e. Press SET key again to read the following parameters one by one.

2. Adjustment:

a. Well connected wires and sensor, turn power on.
b. Parameter SEL settings. Press UP and DOWN key >3s to enter the menu set the data in hndredth bit to 0. Press SET key to confirm.
c. Set USP = Standard weight (sugest more than 20% load cell scale) set PVF=0000
d. Without any weight on the instrument press DOWN key >5s until OK flashes. That's to set the zero point and displays 0.0.
e. Add the weight equal to setted USP, press UP key >5s until OK flashes. That's to set the high value and it displays the addded weight.
f. Should big error happenes, jus repeat the above operation.
g. After finish the above operation, press <</Rst key >2s, to be clear tare weight.
h. Parameter SEL setting press UP nad DOWN key >3s to enter the menu set the data in hundreth bit to 1. Press SET key to confirm.

3. Clear tare weight:

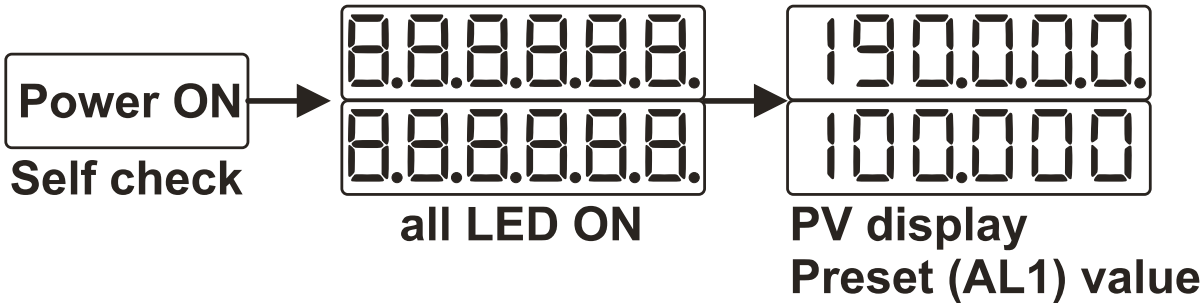
In display estate press <</Rst key >2s to clear, then it displays 0.

4. The instrument will return to the measuring estate without any operation for 25 seconds.

5. When accumulated/average function is needed. The accumulate value will be in the low LED. Press external terminal RST to reset, SUM to add up the value will be added when each operation to SUM.

6. Decimal point setting for parameter AL1, AL2, AL3, HY1, HY2, PVF, USP, tRL, tRH press <</Rst key, LED flashes, then one hand to hold SET key, and the other hand to press UP key to shift the decimal point. Press SET key again to confirm and save.

Operation process



Parameter settings

SET key >3s

AL1 / 90.0000 — Alarm 1 settings, range:0~999999

↓SET

AM1 / H — Alarm 1 mode settings L:low output, H:High ouput

↓SET

AL2 / 30.0000 — Alarm 2 settings, range:0~999999

↓SET

AM2 / H — Alarm 2 mode settings L:low output, H:High ouput

↓SET

HY1 / 1.00000 — Alarm hysteresis value settings (for AL1, AL2) range:0~999999

↓SET

AL3 / 40.0000 — Alarm 3 setting. (not available if no AL3)

↓SET

AM3 / H — Alarm 3 mode settings L:low output, H:High ouput

↓SET

HY2 / 0.00000 — Alarm hysteresis value settings (for AL3) range:0~999999

↓SET

PVF / 206.000 — Material loss compensation value setting.

| (PV(displaj value)=actual value +PVF

↓SET

USP / 206.000 — Reference weighing for calibration/Loadcell scale: range:0~999999

↓SET

dP / 000.000 — Decimal point setting for PV value: 000000, 000.000, 0.00000,...

↓SET

trL / 0.00000 — Response for 4mA output low value setting range:0~999999

↓SET

trH
100.000

Response for 20mA output high value setting range:0~999999

↓SET

SFt
005

Digital filter constant.

0: direct display
1: mean value of 2 sampling display
2: mean value of 4 sampling display

↓SET

Unt
003

Units selection (inactive)

↓SET

Add
001

Communication address: 000~250

↓SET

LcK
000

LCK=010 is for read only

LCK=000 means the parameter can be modified.
Password selection range 0~200.

Connection

Refer the label on the meter

Adjusting for large-tonnage scale loadcell:

A: Set USP=the total weight of all input loadcells (eg. each loadcells is 1000Kg, 3 loadcells in total, the total weight is 3000Kg. Then set USP=3000)
Set PVF=0.000

B: Record the display value (PV1) when no weight on the loadcells (eg.100.5Kg).

C: Add the standard weight (the weight should be larger than 20% of the total loadcell weight, eg. 500Kg). Recorder the displaying value (PV2) (eg. 630Kg).

D: Calculation : The actual weight added (eg.500Kg)/(PV2-PV1)
eg. 500/(630-100.5) = 0.9442

E: Calculation: USP*(The actual weight added/(PV2-PV1)).
eg. USP*(500/529.5)=2832.86 then set USP=2832.86 again.

F: The adjustment is finished.