MYPIN

LH Series Weight indicator / Controller Instruction Manual

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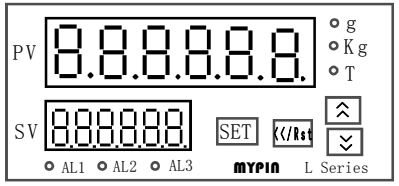
Before operating this instrument, please carefully read this manual and fully understand its contents. If any probroms, please contact our sales or distributors whom you buy from. This manual is subject to change without prior notice.

▣ Application

1 High precision Weight indicator and control *Mixed Batching control
2 Direct Load :1-4 PCS load cells,24 bits A/D converter
3 Digital Input: START/STOP and Clear TARE (Reset)
4 UP to 6-Relay / SSR output: high / low alarm or fast / slow control
5 Transmit Output::4-20mA / 0-10V/0-5V
6 Data/Peak value holding function for choice.
7 communication :RS485 RS232 LAN RJ45(MODBUS-RTU) .
8 Other funtion can be ordered

▣ Panel



① PV LED :weight value / Parameter code display
② SV LED: Parameter value / preset value
③ output LED: ON: active, OFF: inactive
AL1: Alarm 1, AL2: Alarm 2, AL3: Alarm 3
④ SET :Parameters Select / Confirm key
⑤ Rst : Shift key / Clear tare key
⑥ UP & DOWN key

▣ Specifications

Power	90-260V AC/DC OR 15-30V AC/DC
Power Consump.	⩽ 5VA
Accuracy	0.02-0.05%F.S ± 2digit (24 bits A/D converter)
Relay	250V AC 3A or 30V DC 3A resistive load
Sampling speed	16-128 times/sec
Input	0-30mV(1-4 loadcells), or 4-20mA,0-10V
transmit Output	0-10V or 4-20mA , Accuracy:0.3%
Auxiliary Power	5V/80mA(Loadcells) , DC 24V/12V/Max 30mA(transmitter)
Communication	RS232 , RS485,RJ45 MODBUS RTU protocol

▣ Ordering Code

MODEL												Functions
LH8	□	□	□	□	□	□	□	□	□	□	□	LH Series
SIZE	5											5 bits 48H * 96W *110L
	6											6 bits 48H * 96W *80L
Power												Blank : 90-260V AC/DC
	E											18-30V or 24VDC
Transmit output												blank:none
		V										DC 0-10V
		I										DC 4-20mA
		R										AL4:alarm, no transmit
Alarm	AL1		N									N: none
			R									Relay: AC250V / 3A
			S									SSR : 12 / 24V / 30mA
	AL2			N								N: none
				R								RELAY: AC250V/3A
				S								SSR,12/24V/30mA
	AL3											Blank: none
					R							RELAY: AC250V/3A
					S							SSR,12/24V/30mA
Communication												Blank: none
						2						RS232
						4						RS485
						5						LAN RJ45
Excition source							D					5V / 80mA
							B					24V/ 30mA
							E					Other:order
Input code												Blank: load sensors
								1				0-30mV
								G				fast / slow filling control
								F				Other: order
Application: ALL 350 Ω -1K Ω Loadcells or pressure sensors												Blank:none
											T	Supply loadcell sensors with the meter

E.g LH86-IRR4D, 6 digits weight controller,power supply: 90-260V AC/DC,SIZE: 96W*48H*80L mm , Output: DC 4-20mA and 2-Relays,communication: RS485,input sensor :loadcells

▣ Dimension and Mounting

LH86: 6 digital LED display
Dimensions: width 96 x Height 48 x length 80mm
Mounting :W 92+0.5x H45+0.5mm

LH85: 5 digital LED display
Dimensions: width 96 x Height 48 x length 110mm
Mounting :W 92+0.5x H45+0.5mm

▣ Parameters setting

1.**Parameter setting:**
a.press and hold SET key until to enter menu.
b.Press <</Rst key, LED flashing
Press <</Rst once again to shift flashing LED
c.Press Up / Down key to modify data
d. Press SET key to confirm,LED stop falshing.
e.press and hold SET key until to Quit menu or goto next parameter .

Modify decimal point:

when LED flashing, keeping hold SET key, and press UP key once at the same time, the decimal point will change ,then loose key in required position

2 AL1 Preset setting

AL1 can be set on SV window without enter manu, In measuring estate, Press <</Rst key, LED flashing, Press Up / Down key to modify data, Press SET key to confirm, LED stop falshing

3. **Adjustment**:

A when empty(no load),press DOWN key until 'Oy' flashing to release key ; PV LED displays about 0
B placing the weight of this calibration, press UP key until SV LED flashing to release key refer parameter setting steps to set SV LED data =the weight of this calibration
E.g,the weight of this calibration is 50Kg, Setting SV data=0050.00,unit is Kg
C. Refer page 2 to lock adjusting operation

4: **Clear tare** : in display estate, when empty, press <</Rst key until PV LED display 0 or press terminal RST once to clear

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

6 .following functions are ordered
peak /**average /total weight** , belt scale ,

▣ Operation process

press and hold SET key until to enter menu

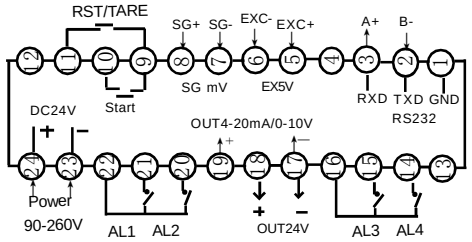
↓ SET>3S
AL1 preset value,
range:0-999999,eg.AL1=90.00
↓ SET
Alarm 1 output controll
H:High output PVdata>AL1,AL1 active,
PVdata<AL1-HY1,AL1 inactive
L: Low output PVdata<AL1 ,AL1 active
PVdata>AL1+HY1,AL1 inactive
↓ SET

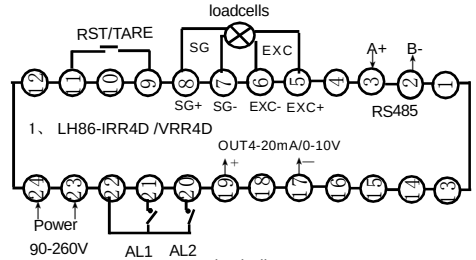
↓
AL1 alarm hysteresis setting
range: 0-999999,factory value: 1.000
↓
AL2 preset value,
range:0-999999,eg.AL2=10.00
↓ SET
Alarm 2 output controll
H:High output PVdata>AL2,AL2 active,
PVdata<AL2-HY2,AL2 inactive
L: Low output PVdata<AL2 ,AL2 active
PVdata>AL2+HY2,AL2 inactive
↓ SET
AL3 preset value,
range:0-999999,eg.AL3=50.00
↓ SET
Alarm 2 output controll
H:High output PVdata>AL3,AL3 active,
PVdata<AL3-HY2,AL3 inactive
L: Low output PVdata<AL3 ,AL3 active
PVdata>AL3+HY2,AL3 inactive
↓ SET
Alarm hysteresis value setting
(for AL2 AL3) range: 0-999999
↓ SET
Reserved(facyory=0.00,ordering)
weight of drop difference compensation value
↓ SET
The weight value of calibration,refer adfustment step B, weight unit is determined by this
↓ SET
PV LED weight display Decimal point
int :000000 1 - point :00000.0
2-I point :0000.00 3- point :000.000,
↓ SET
transmit output low value,
E.g 0-200Kg for 4-20mA/0-10V
setting t r l=0.0
↓ SET
transmit output High value,
E.g 0-200Kg for 4-20mA/0-10V
setting t r H=200.0
↓ SET
Digital filter,range:0-20,factory : sft=001
Larger the data, more stable is the weight display
↓ SET
weihght Units
:Kg :g :ton
↓ SET
Communication ID address :000-255
Baud rate 9.6k or 19.2 K bits/sec
↓ SET
Password selection,range:0-255
LCK=010, for read only,cant be modified .
LCK ≠010 read and write.
↓ press set key return to AL1
press and hold SET key until to Quit

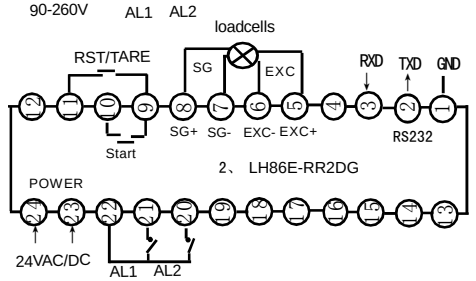
LH MODBUS USER INSTRUCTIONS

General Wiriing Diagram

(If any changed, refer the label on the meter).







Complete products contains

★1 copy of user manual,
★1 inspection QC label,
★2 installing brachets,

We are responsible for the overal repairment for the failure of manufactorying quality within 12 months since the date of purchase.

More information:PLS Down load from : www.mypinchina.com

IP/wechat: 86-18689341985, Email:sale@mypinchina.com

Main Products

- Counter & length meter
- Time relay
- Temperature controller
- Panel meter
- Frequency/Tacho/Line-speed meter
- Proximity sensor Photo-electrical sensor
- Ampere & Voltage Power meter
- Transmitter
- Universal Sensor indicator
- Power adjustor

Calibration Lock / Unlock

press UP and Down key until to enter menu

Baud Rate
9.6K Bit/S OR 19.2K Bit/S
factory:9.6K Bit/S

Prt=No,Unlock calibration,
Prt=YES,lock calibration,Calibration operation not allowed (refer PAGE 1 weight adjustment)

Calibration password for factory

press UP and Down key until to quit menu

1 RS485/RS232 MODBUS-RTU Frame data format

Start bit	Data bit	Stop bit	Parity	Baud rate
1	8	1	None	9.6k or 19.2k

2 The format of the data reading and writing is same as standard Modbus protocol.

Definition as follows:

Request:(eg. read weight value ,TX: 01 03 00 E4 00 03 45FC)

01	03	0228(00E4H)	0003	45FC
ADD	COM	PV	Counts	CRC

Response: (eg.RX: 01 03 06 000031FFD800 29 45)

Return data 3 words,take the first 5 bytes from high to low,
PV= 000031FFD8 = INT 00 00 31H(3 Bytes)+ Point
FFD8H(2 bytes) =49+65496(FFD8H)/65536=49.999

01	03	06	000031FFD800	7166
ADD	COM	Count	PV	CRC

If the max bit is 1,it means negative number,reverse data code and add 1,E.g return data PV=FFFF2C CC80
PV=- {00 00 D3 337F(Reverse code)+1}= - 0000D3.3380=-{211(D3H)+13184(3380H)/65536}= - 211.2011

3, Can read OR write 1 parameter only By BCD code every time ,format: H-M-L-Point, E.g 1234.56, TX data code:12 34 56 02,
high byte A? ,A='-',B?,b='-1',?:number,E.g ,-234.56=TX code:A23456 02,-1234.56=TX code :B23456 02,
writing AL2=1234.56,TX:01 03 00 08 00 02 04 12 34 56 02 08 DE,AL2=-234.56,TX:01 03 00 08 00 02 04 B2 34 56 02 2ADE

4 Clear Tare: Parameter PF1(Address 48H), TX: 01 06 00 48 00 00 09 DC, 01:ID number,,06:COM ,ingnore writing data

5, Commands: 03H: read holding registers parameters 06H: write single holding register parameter value
10H: write multi holding registers parameters value

6, Communication parameters:

Parameters	data address (HEX)	count (words)	functions	Parameters	data address (HEX)	count (words)	functions
PV	E4H	3	weight value,read only	AM3	1CH	1	AL3 alarm, 0:L,1:H, R/W
AL1	00H	2	AL1 control Value, R/W	USP	24H	2	the weight of calibration, R/W
AM1	04H	1	AL1 alarm, 0:L,1:H, R/W	dp	28H	1	PV decimal point, R/W
HY1	08H	2	HY1 control hysteresis, R/W	TRL	2CH	2	Transmit low value, R/W
AL2	0CH	2	AL2 control Value, R/W	TRH	30H	2	Transmit high value, R/W
AM2	10H	1	AL2 alarm, 0:L,1:H, R/W	SFt	34H	1	software filtering Value,R/W
HY2	14H	2	AL2 AL3 control hysteresis, R/W	Unt	35H	1	weight unit, 0: g, 1: Kg, 2: T, R/W
AL3	18H	2	AL3 control Value, R/W	Add	36H	1	ID address, 0-255, R/W