



# HANYOUNG nuX HP3 Digital Scalemeter Instruction Manual

[Home](#) » [HANYOUNG NUX](#) » HANYOUNG nuX HP3 Digital Scalemeter Instruction Manual 

## Contents

- [1 HANYOUNG nuX HP3 Digital Scalemeter](#)
- [2 Product Information](#)
- [3 Product Usage Instructions](#)
- [4 Safety information](#)
- [5 Specification](#)
- [6 Dimension and Panel cutout](#)
- [7 Connection diagram](#)
- [8 Parts Name](#)
- [9 Modify parameter value](#)
- [10 Indication of Error and Function](#)
- [11 Documents / Resources](#)
  - [11.1 References](#)
- [12 Related Posts](#)

# HANYOUNG nuX

## HANYOUNG nuX HP3 Digital Scalemeter



## Product Information

- **Product Name:** Digital Scalemeter HP3
- **Manufacturer:** HANYOUNGNUX CO.,LTD
- **Suffix Code:** HP3-
- **Optional:** None (0), RS232 (1), RS485 (2)

## Specification:

- **Power Supply Voltage:** 100-240 V~ 50-60 Hz
- **Input:** 4-20mA, 1-5 V d.c.
- **Alarm Output:** ALM1, ALM2
- **Retransmission Output:** RET
- **Insulation Resistance:** 100 MΩ (500 V d.c.)
- **Dielectric Strength:** 2300 V a.c., 50 Hz / 60 Hz for 1 min
- **Operating Ambient Temperature:** -5 ~ 50 °C
- **Operating Ambient Humidity:** 20 ~ 90 % R.H. (With no condensation)
- **Storage Ambient Temperature:** -25 ~ 70 °C
- **Storage Ambient Humidity:** 5 ~ 95 % R.H. (With no condensation)
- **Dimension and Panel Cutout:** [Unit : mm]
- **Connection Diagram:**

## Parts Name:

- Transmitter
- RS232
- Rx
- Tx
- SG
- 24 V d.c. Input
- GND
- CurrentVoltage
- TRX+
- TRX-
- RET
- RS485
- ALM1
- ALM2
- L
- N
- F.G
- NO COM NC
- POWER

## Product Usage Instructions

1. Ensure the product received matches the order.
2. Read the safety information in the manual thoroughly.
3. Connect the power supply voltage according to the specification.
4. Connect the input and output terminals as shown in the connection diagram.
5. If using optional communication (RS232 or RS485), follow the wiring examples provided.
6. Set the desired parameters using the operation indicators and buttons.
7. To modify parameter values, navigate to the parameter using the indicators and buttons, change the value, and press the appropriate button.
8. Observe the measurement indication on the PV Indicator.
9. Refer to the manual for further information on specific parameter names and values.

Please consult the instruction manual for more detailed instructions and troubleshooting information.

## INSTRUCTION MANUAL

- Thank you for purchasing HANYOUNG product.
- Please check whether the product is the exactly same as you ordered.
- Before using the product, please read this instruction manual carefully.
- Please keep this manual where you can view at any time

## Safety information

- Before using the product, please read the safety information thoroughly and use it properly.
- Alerts declared in the manual are classified to Danger, Warning and Caution by their criticality.
- **DANGER:** DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury
- **WARNING:** WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury
- **CAUTION:** CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury

### Danger

Do not touch or contact the input/output terminals because it may cause electric shock.

### Warning

- If there is a possibility of an accident caused by errors or malfunctions of this product, install external protection circuit to prevent the accident.
- This product does not contain an electric switch or fuse, so the user needs to install a separate electric switch or fuse externally. (Fuse rating : 250 V 0.5 A)
- This product is built in 24 V output. Do not use loaded power more than 70 mA.
- To prevent defection or malfunction of this product, supply proper power voltage in accordance with the rating.
- When you change the using range (URV, LRV) Please change it before setting up than any other data. If you

change URV or LRV, it could affect other data and cause problem. To prevent electric shock or device malfunction of this product, do not supply the power until the wiring is completed.

- Since this product is not designed with explosion-protective structure, do not use it at any place with flammable or explosive gas.
- Do not decompose, modify, revise or repair this product. This may cause malfunction, electric shock or fire.
- Reassemble this product while the power is off. Otherwise, it may cause malfunction or electric shock.
- Due to the danger of electric shock, use this product installed onto a panel while an electric current is applied.

## **Caution**

- The contents of this manual may be changed without prior notification.
- If the user uses the product with methods other than specified by the manufacturer, there may be bodily injuries or property damages.
- Check to make sure that there is no damage or abnormality of the product during delivery. •The ambient temperature needs to be 0 ~ 50 °C (In case of installment in narrow space, 40 °C). The ambient humidity is 20 ~ 90 % R.H. (No icing).
- Do not use this product at any place with corrosive (especially noxious gas or ammonia) or flammable gas.
- Do not use this product at any place with direct vibration or impact.
- Do not use this product at any place with liquid, oil, medical substances, dust, salt or iron contents. (Use at Pollution level 1 or 2)
- Do not polish this product with substances such as alcohol or benzene.
- Do not use this product at any place with excessive induction trouble, static electricity or magnetic noise.
- Do not use this product at any place with possible thermal accumulation due to direct sunlight or heat radiation.
- Install this product at place under 2,000 m in altitude.
- When the product gets wet, the inspection is essential because there is danger of an electric leakage or fire.
- To avoid inductive noise to input wires, separate the power line from the load wire.
- Keep Input wire away from output wire.
- If there is excessive noise from the power supply, using insulating transformer and noise filter is recommended. The noise filter must be attached to a panel grounded, and the wire between the filter output side and power supply terminal must be as short as possible.
- It is effective to use a twisted cable for power supply against noise.
- Turn off the power before changing a sensor.
- This product conforms with IP65. But Waterproof between Panel and product is up to the packing between them. Please make good use of packing.
- Do not connect anything to the unused terminals.
- After checking polarity of terminal, connect wires at the correct position.
- Mark appropriate on the ON/OFF switch for the emergency.
- For the continuous and safe use of this product, the regular maintenance is recommended.
- Some parts of this product have limited life span, and others are changed by their usage.
- The warranty period for this product including parts is one year if this product is properly used.

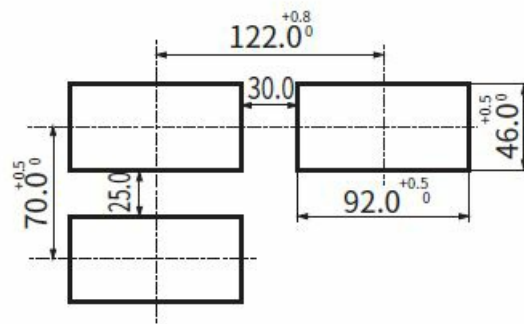
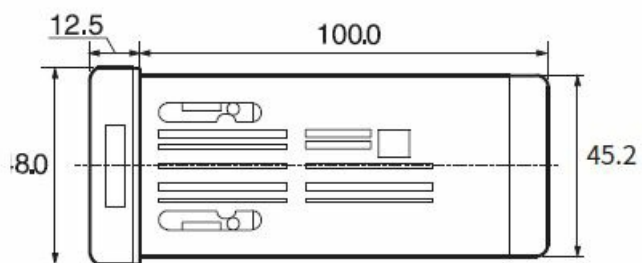
## **Suffix code**

| Model    | Code                     | Information        |
|----------|--------------------------|--------------------|
| HP3-     | <input type="checkbox"/> | Digital scalemeter |
| Optional | 0                        | None               |
|          | 1                        | RS232              |
|          | 2                        | RS485              |

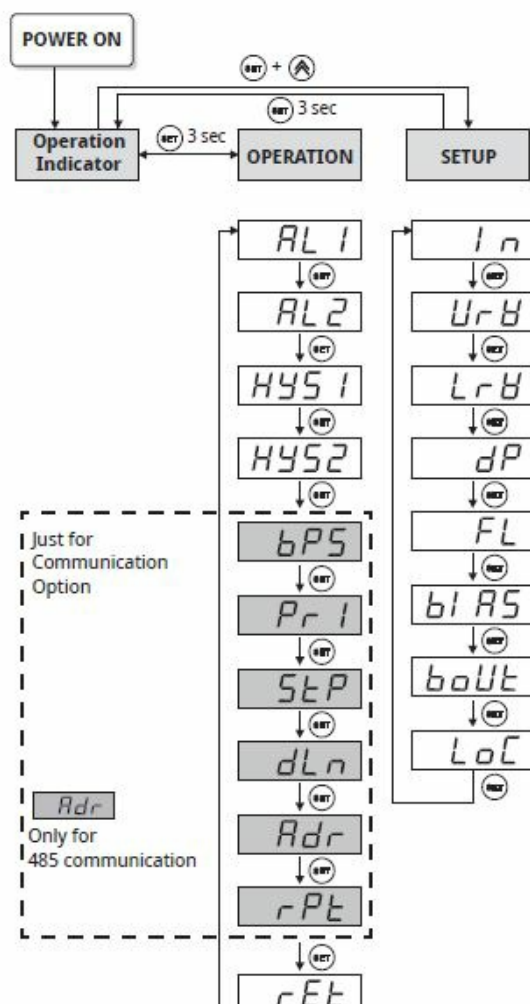
## Specification

- **Power supply voltage:** 100 – 240 V a.c, 50 – 60 Hz (allowable voltage fluctuation :  $\pm 10$  %)
- **Input:**
  - **Input contact :** 1 Channel
  - **Input specification :** 4 – 20 , 1 – 5 V (Different input contact)
  - **Accuracy :**  $\pm 0.03$  % of F.S
  - **Sampling cycle :** 500
  - **Input Compensation :** -100 ~ 100 % of F.S, Input Filter : 0 ~ 100 s
- **Alarm output**
  - **Output contact :** 1C  $\times$  2 contacts (AL1, AL2)
  - **Capacity of Contact :** 5 A 240 V a.c, (5 A 30 V d.c)
  - **Resolving power :** 125
  - **Hysteresis :** 0 ~ 10 % of F.S
- **Retransmission output**
  - **Output contact :** 1 contacts
  - **Output range :** 4 – 20 d.c
  - **Load resistance :** 600  $\Omega$  max
  - **Accuracy :**  $\pm 0.1$
  - **Resolving power :** 2,600
- **Insulation resistance**
  - 100 (500 V .d.c)
- **Dielectric strength**
  - 2300 V a.c, 50 Hz / 60 Hz for 1 min
- **Operating ambient**
  - **Temperature :** -5 ~ 50 °C
  - **Humidity :** 20 ~ 90 % R.H. (With no condensation)
- **Storage ambient**
  - **Temperature :** -25 ~ 70 °C
  - **Humidity :** 5 ~ 95 % R.H. (With no condensation)

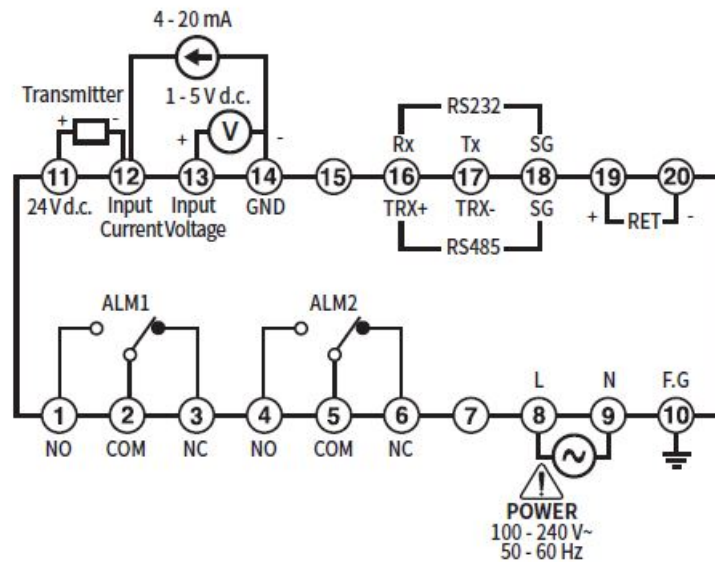
## Dimension and Panel cutout



## Parameter structure



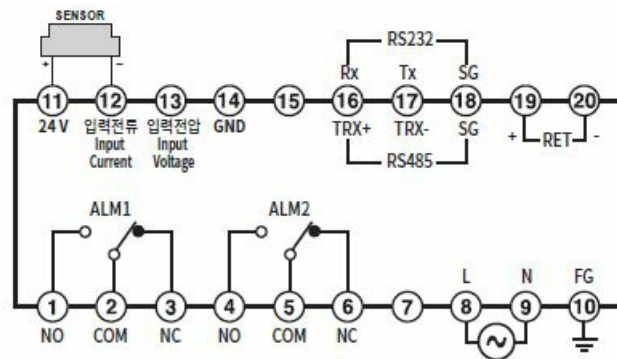
## Connection diagram



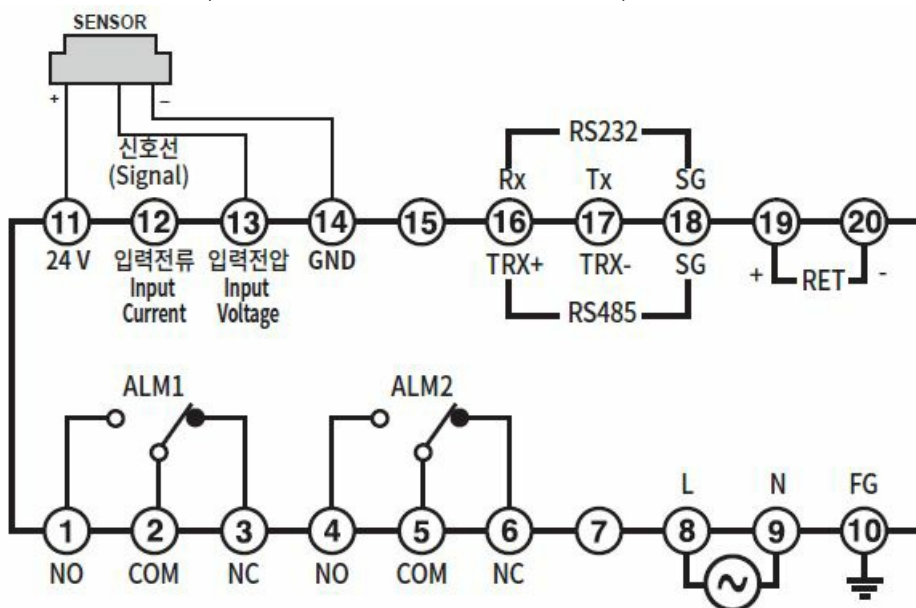
Contact — is only applied to 2 wire current retransmission transducer.

## Wiring Examples

**Internal power:** 24 V d.c 2 wire 4 – 20 mA transmitter (24 V d.c 2 wire 4 – 20 mA transmitter)

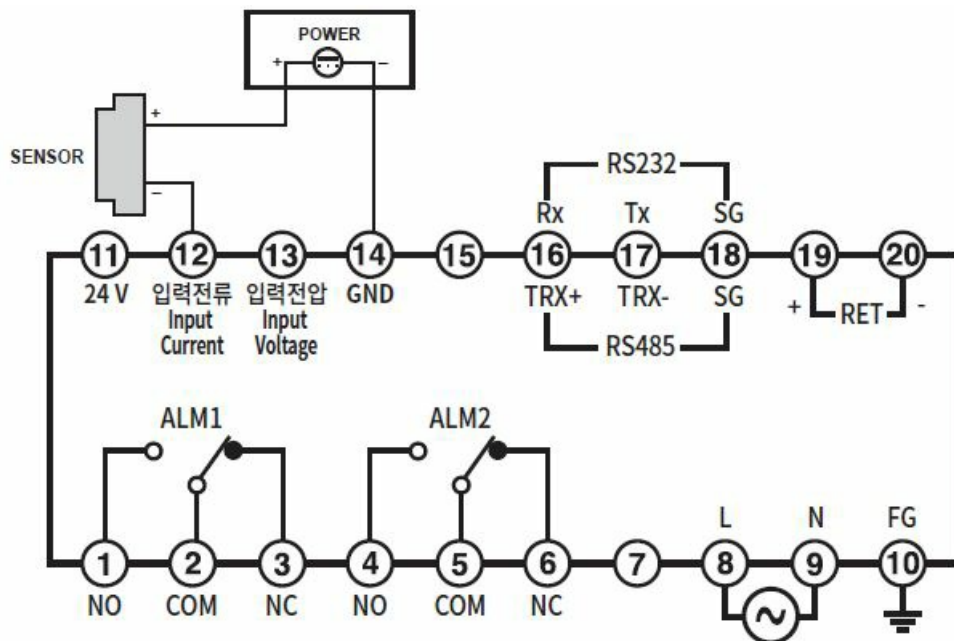


24 V d.c 3 wire 1 – 5 V transmitter (24 V d.c 3 wire 1 – 5 V transmitter)

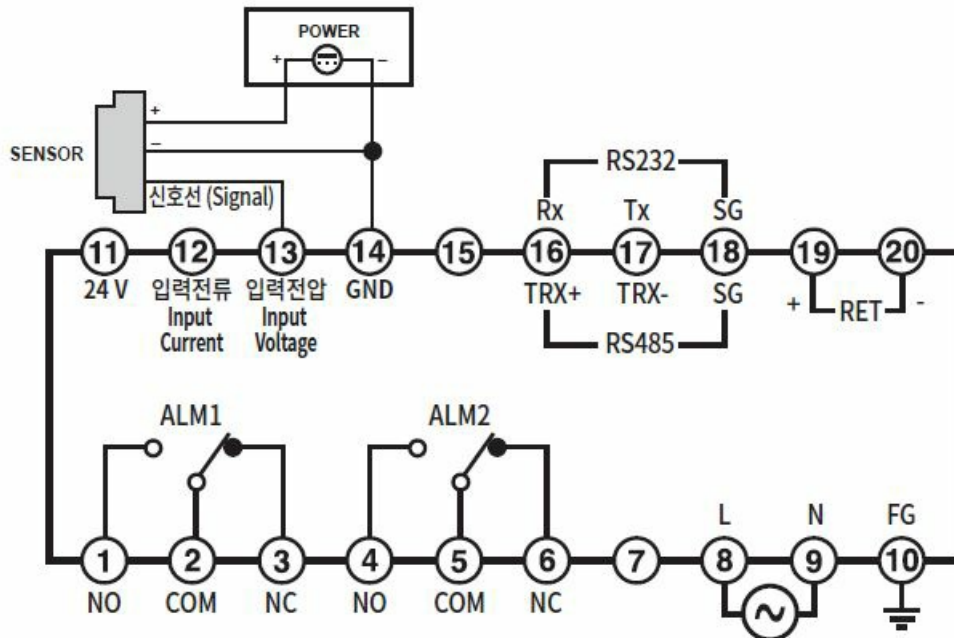


## External power

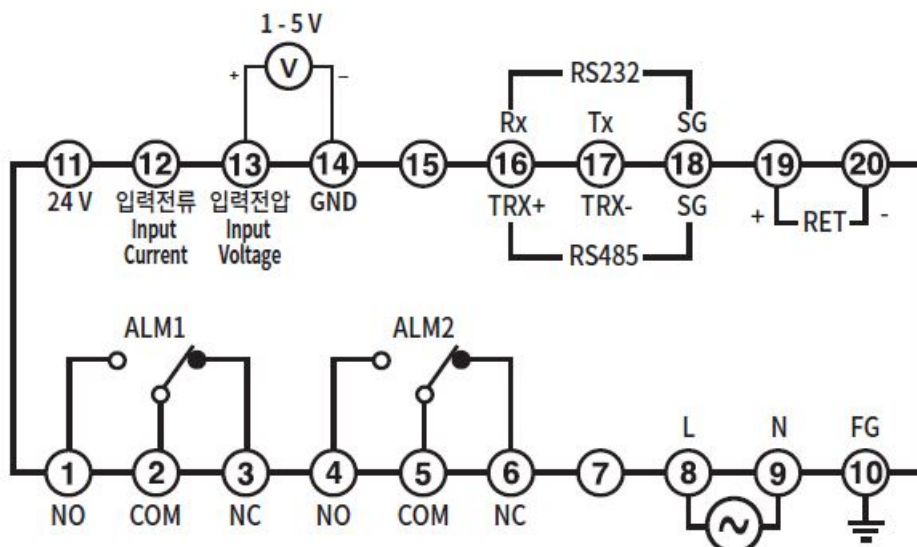
24 V d.c 2 wire 4 – 20 mA transmitter (24 V d.c 2 wire 4 – 20 mA transmitter)



24 V d.c 3 wire 1 – 5 V transmitter (24 V d.c 3 wire 1 – 5 V transmitter)

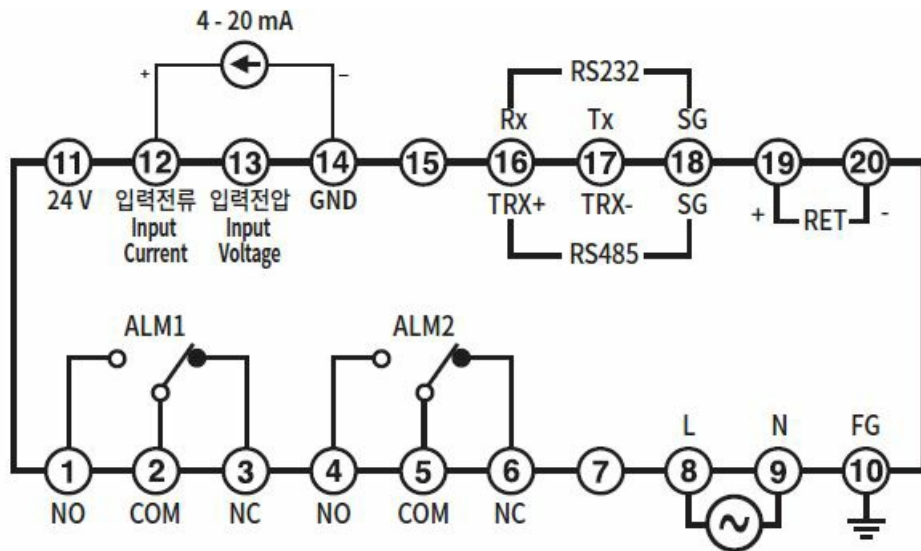


1 – 5 V input (1 – 5 V Input)

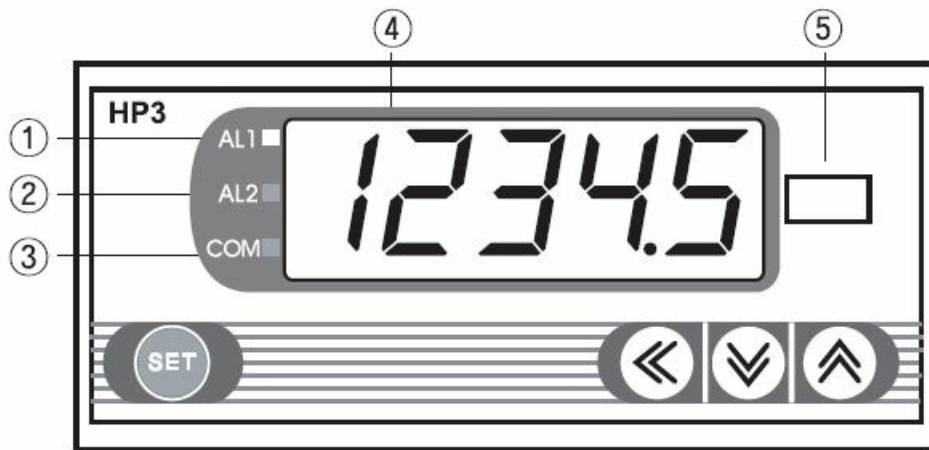


4 – 20 mA input (4 – 20 mA Input)





## Parts Name



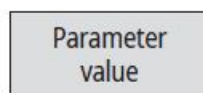
1. Alarm 1 indicating lamp
2. Alarm 2 indicating lamp
3. Communication lamp
4. PV Indicator
5. Measurement indication
6. SET : SET mode

- ⏪ : Setting Value shift key
- ⏩ : Set value up
- ⏴ : Set value down

## Modify parameter value



In indicator screen, when “parameter name” and “parameter value” come up alternately, press “◀” or “▶”, “⏴”



Then, only “parameter value” come up. Press ◀, ▶, ⏴ button to change the value and press “SET” button.



Changed parameter value has been set up. “Parameter name” and “changed parameter value” come up alternately.

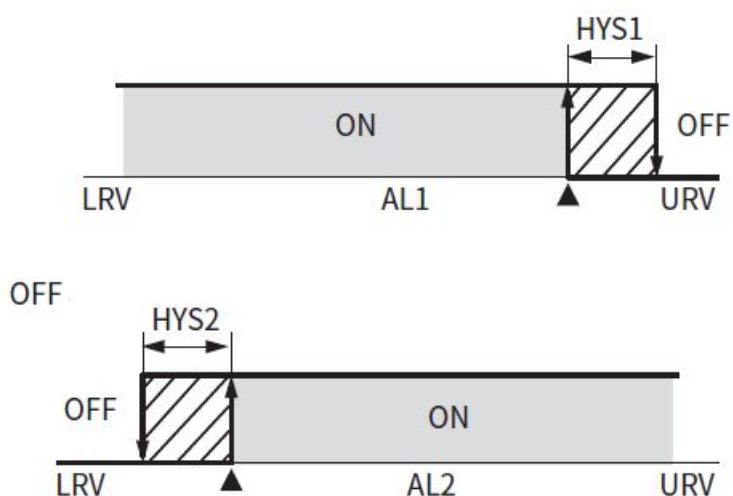
## Parameter

| display unit |  | Setting description  | Initial value  | Memaesnutre  |
|--------------|--|--|--|--|
| <i>AL 1</i>  | <ul style="list-style-type: none"> <li>Alarm 1 set value</li> <li>Alarm 2 set value</li> </ul> | <ul style="list-style-type: none"> <li>EU 0 ~ 100 %</li> <li>EU 0 ~ 100 %</li> </ul> | <ul style="list-style-type: none"> <li>EU (0 %)</li> <li>EU (100 %)</li> </ul> | <ul style="list-style-type: none"> <li>EU</li> <li>EU</li> </ul> |
| <i>AL 2</i>  | Alarm 1 hysteresis   | EUS 0 ~ 10 %   | EUS (2 %)  | EUS  |
| <i>HYS 1</i> | Alarm 2 hysteresis   | EUS 0 ~ 10 %   | EUS (2 %)  | EUS  |
| <i>HYS 2</i> | Communication velocity   | 1200, 2400, 4800, 9600   | 9600   | ABS  |
| <i>bPS</i>   | Communication Parity   | NONE, EVEN, ODD  | NONE   | ABS  |
| <i>Pr 1</i>  | Communication Stop Bit   | 1,2  | 1  | ABS  |
| <i>StP</i>   | Communication Data Length  | 7,8  | 8  | ABS  |
| <i>dLn</i>   | Communication Address  | 1 ~ 99   | 1  | ABS  |
| <i>Adr</i>   | Communication responding time  | 0 ~ 10(* 10 )  | 0  | ABS  |
| <i>rPt</i>   | Transmission time  | DIR, REV, SQRT, 0to20  | DIR  | ABS  |
| <i>rEt</i>   | Input type   | 1 : 4 – 20 , 2 : 1 – 5 V d.c   | 1  | ABS  |
| <i>ln</i>    | Set value of High Alarm  | -19999 ~ 19999   | 19.999   | ABS  |

|             |                        |                       |           |     |
|-------------|------------------------|-----------------------|-----------|-----|
| <i>UrB</i>  | Set value of Low alarm | -19999 ~ 19999        | -19.999   | ABS |
| <i>LrB</i>  | Decimal point          | 0 ~ 4                 | 3         | ABS |
| <i>dP</i>   | Filter                 | OFF(0), 1 ~ 100       | OFF (0)   | ABS |
| <i>FL</i>   | Compensation Value     | EUS -100 ~ 100 %      | EUS (0 %) | EUS |
| <i>bIAS</i> | Sensor Break           | UP(0), DOWN(1),OFF(2) | UP        | ABS |
| <i>boUt</i> | Lock                   | OFF(0), ON(1)         | OFF (0)   | ABS |
| <i>LoC</i>  |                        |                       |           |     |

- When you change the using range (URV, LRV) Please change it before setting up than any other data. If you change URV or LRV, it could affect other data and cause problem.
- 1 : EUS -100 ~ 100% within the range of -19999 ~ 19999

#### Alarm relay and AL1, AL2 lamp function



#### Indication of Error and Function

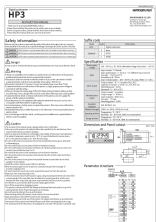
|       | Description   | Relay function   | LED function  |
|-------|---|--|---|
| SYSE  | <ul style="list-style-type: none"> <li>• SYSTEM error</li> <li>• AD Change error</li> </ul> | <ul style="list-style-type: none"> <li>• All relay "OFF"</li> <li>• AL1 "ON"</li> </ul>                      | <ul style="list-style-type: none"> <li>• All LED"OFF"</li> <li>• ALL "ON"</li> </ul>                          |
| AdC   |   | Mode UP → AI2 "ON"   | Mode UP → AI2 "ON"  |
| FAI L | Sensor error Over Input   | Mode Down → AI1 "ON"   | Mode Down → AI1 "ON"  |
| obr   | (Input Of 20 )  | AL1 "OFF", AL2 "ON"  | AL1 "OFF", AL2"ON"  |
| ñobr  | (Input of less than 4 ) EEPROM err<br>or  | <ul style="list-style-type: none"> <li>• AL1 "ON",</li> <li>• AL2 "ON"</li> <li>• Normal Function</li> </ul> | <ul style="list-style-type: none"> <li>• AL1 "OFF",</li> <li>• AL2"OFF"</li> <li>• Normal Function</li> </ul> |
| EEP   |   |  |   |

#### HANYOUNGNUX CO.,LTD

28, Gilpa-ro 71beon-gil, Michuhol-gu, Incheon, Korea TEL : +82-32-876-4697

<http://www.hanyoungnux.com>

#### Documents / Resources

|   |   |
|---|---|
|  | <p><a href="#">HANYOUNG nuX HP3 Digital Scalemeter</a> [pdf] Instruction Manual<br/>HP3 Digital Scalemeter, HP3, Digital Scalemeter, Scalemeter</p> |
|---|---|

#### References

- [H ■■■ : ■■■■](#)
- [H HANYOUNG NUX](#)