



# Electromagnetic Flowmeter

## Model AMC4000 Series

### Operation Manual



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**1. Sensor**

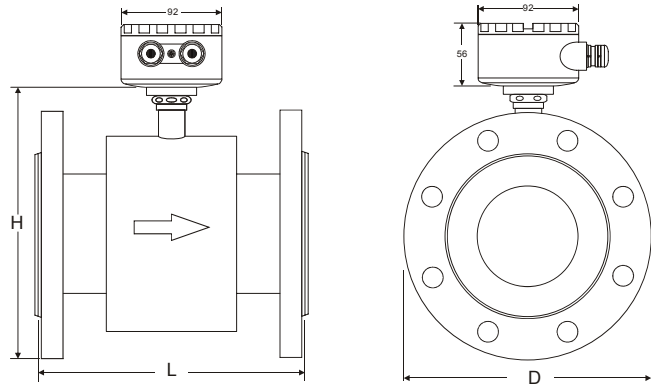
EM Flowmeter composed by sensor and Converter, be compact version or separate version, there are several specification of sensor as follow:

**1.1 AMF900 Flange Type**

Size: 6mm ~ 2000mm (1/4" ~ 80")

- Liner : Neoprene
- Polyurethane
- FEP
- PTFE
- PFA

Protection : IP68  
 Max.Temp.:180 Deg. C  
 Installation : Flange End



| Size<br>(mm) | Standard Pressure<br>Kg/cm2 | Liner Material |          |              |      | Dimensions (mm) |      |      |     |
|--------------|-----------------------------|----------------|----------|--------------|------|-----------------|------|------|-----|
|              |                             | FEP / PFA      | Neoprene | Polyurethane | PTFE | L               | D    | H    |     |
| 6            | 40                          | ⊙              |          |              |      | 150             | 90   | 145  |     |
| 10           |                             | ⊙              |          |              |      |                 | 95   | 155  |     |
| 15           |                             | ⊙              |          |              |      |                 | 105  | 160  |     |
| 20           |                             | ⊙              |          |              |      |                 | 115  | 166  |     |
| 25           |                             | ⊙              |          | ⊙            | ⊙    |                 | 140  | 180  |     |
| 32           |                             | ⊙              |          | ⊙            | ⊙    |                 | 150  | 190  |     |
| 40           |                             | ⊙              |          | ⊙            | ⊙    |                 | 200  | 165  | 201 |
| 50           |                             | ⊙              | ⊙        | ⊙            | ⊙    |                 |      | 185  | 220 |
| 65           | ⊙                           | ⊙              | ⊙        | ⊙            | 200  | 235             |      |      |     |
| 80           | 16                          | ⊙              | ⊙        | ⊙            | ⊙    | 250             | 220  | 254  |     |
| 100          |                             | ⊙              | ⊙        | ⊙            | ⊙    |                 | 250  | 284  |     |
| 125          |                             | ⊙              | ⊙        | ⊙            | ⊙    |                 | 300  | 314  |     |
| 150          | 10                          | ⊙              | ⊙        | ⊙            | ⊙    | 350             | 340  | 369  |     |
| 200          |                             | ⊙              | ⊙        | ⊙            | ⊙    |                 | 400  | 395  | 430 |
| 250          |                             | ⊙              | ⊙        | ⊙            | ⊙    | 450             | 445  | 480  |     |
| 300          |                             | ⊙              | ⊙        | ⊙            | ⊙    |                 | 505  | 540  |     |
| 350          |                             | ⊙              | ⊙        | ⊙            | ⊙    | 500             | 565  | 600  |     |
| 400          |                             | ⊙              | ⊙        | ⊙            | ⊙    |                 | 615  | 640  |     |
| 450          |                             | ⊙              | ⊙        | ⊙            | ⊙    | 600             | 670  | 700  |     |
| 500          |                             | ⊙              | ⊙        | ⊙            | ⊙    |                 | 780  | 800  |     |
| 600          |                             | ⊙              | ⊙        | ⊙            | ⊙    | 700             | 895  | 910  |     |
| 700          |                             | ⊙              | ⊙        | ⊙            | ⊙    |                 | 1015 | 1020 |     |
| 800          | 6                           | ⊙              | ⊙        |              |      | 900             | 1115 | 1120 |     |
| 900          |                             | ⊙              | ⊙        |              |      | 1000            | 1230 | 1230 |     |
| 1000         |                             | ⊙              | ⊙        |              |      | 1200            | 1405 | 1450 |     |
| 1200         |                             | ⊙              | ⊙        |              |      | 1400            | 1630 | 1560 |     |
| 1400         |                             | ⊙              | ⊙        |              |      | 1600            | 1830 | 1770 |     |
| 1600         |                             | ⊙              | ⊙        |              |      | 1800            | 2045 | 2040 |     |
| 1800         |                             | ⊙              | ⊙        |              |      | 2000            | 2265 | 2250 |     |
| 2000         |                             | ⊙              | ⊙        |              |      |                 |      |      |     |

**1.2 AMF500 Wafer Type**

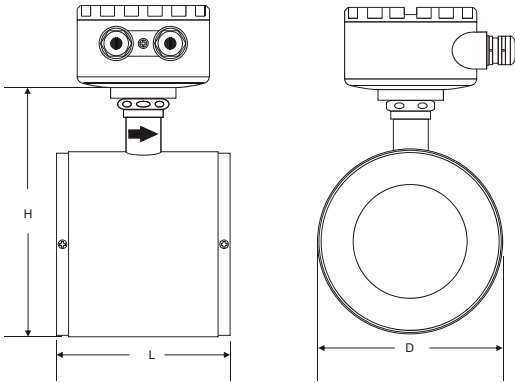
Size: 25mm ~ 200mm (1" ~ 8")

Liner: FEP

Protection: IP68

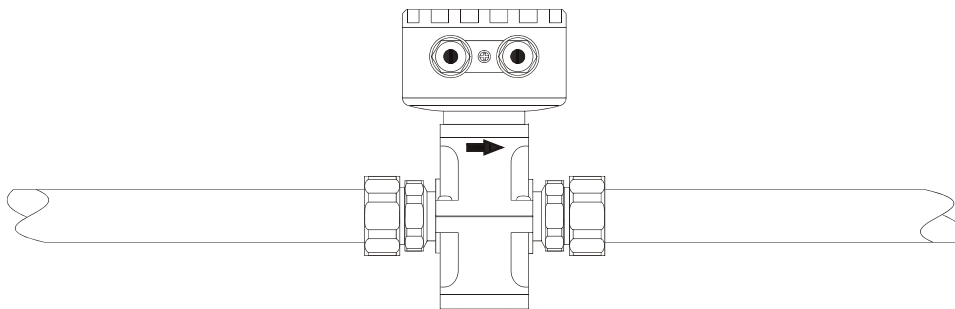
Max.Temp.: 180 Deg. C

Installation: Wafer

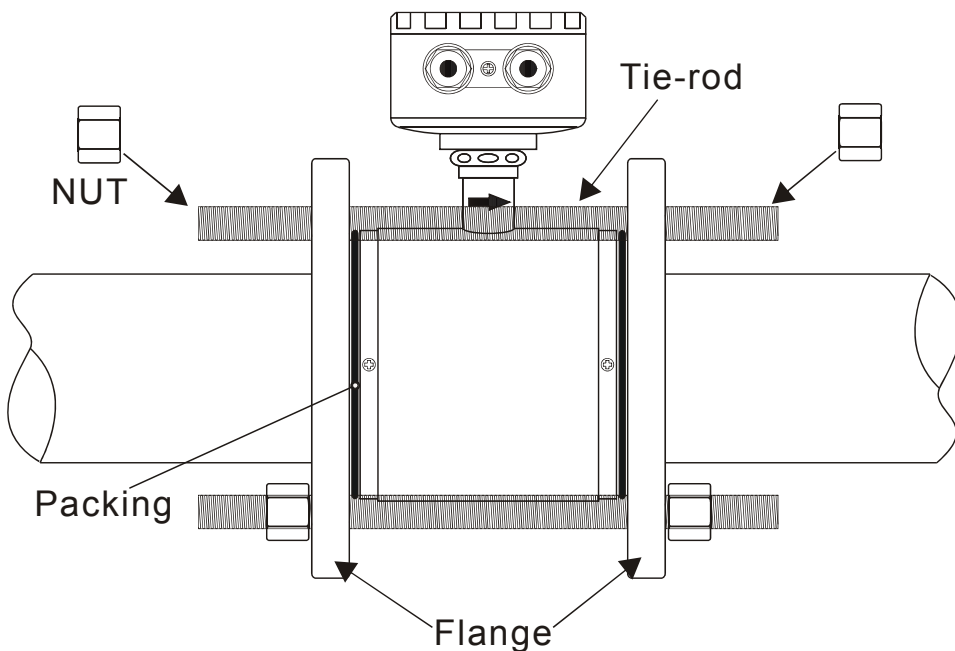


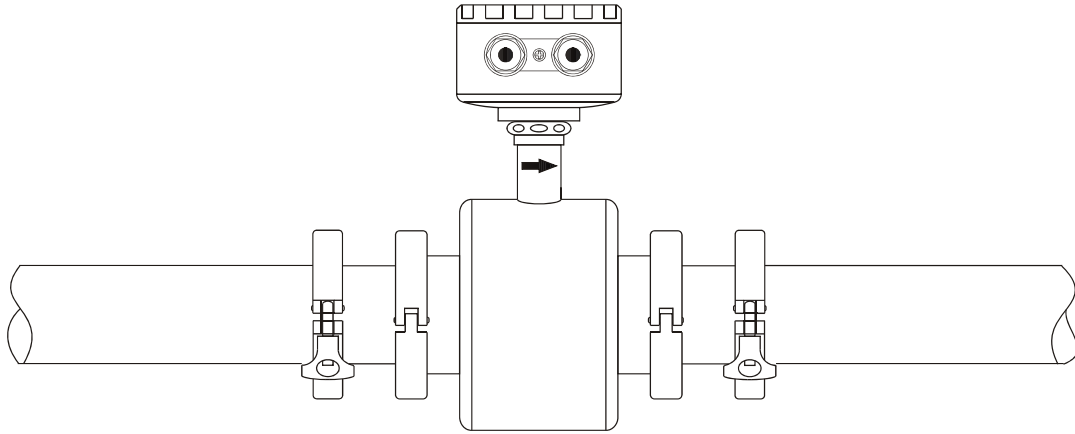
| Size |        | Dimensions (mm) |     |     |
|------|--------|-----------------|-----|-----|
| mm   | Inch   | L               | D   | H   |
| 25   | 1"     | 90              | 71  | 138 |
| 32   | 1-1/4" | 100             | 80  | 147 |
| 40   | 1-1/2" |                 | 86  | 153 |
| 50   | 2"     | 115             | 100 | 167 |
| 65   | 2-1/2" | 115             | 120 | 187 |
| 80   | 3"     | 130             | 131 | 198 |
| 100  | 4"     | 155             | 151 | 218 |
| 125  | 5"     | 155             | 181 | 248 |
| 150  | 6"     | 185             | 206 | 273 |
| 200  | 8"     | 215             | 261 | 328 |

**1.3 AMF300 Installation**

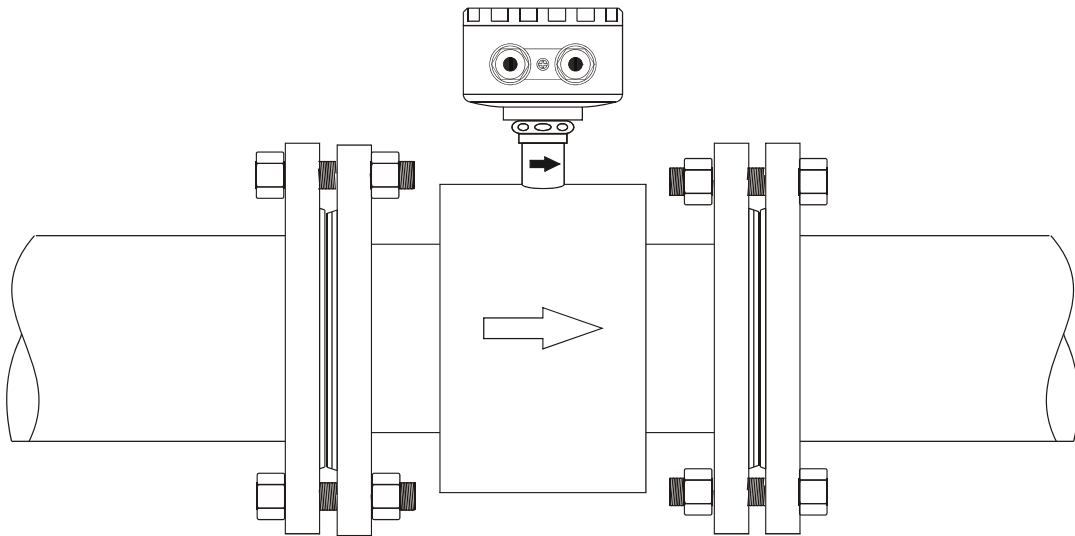


**1.4 AMF500 Installation**





1.6 AMF900 Installation



## 2. Installation

When you design the tube, please consider following items:

### 2.1 Install position

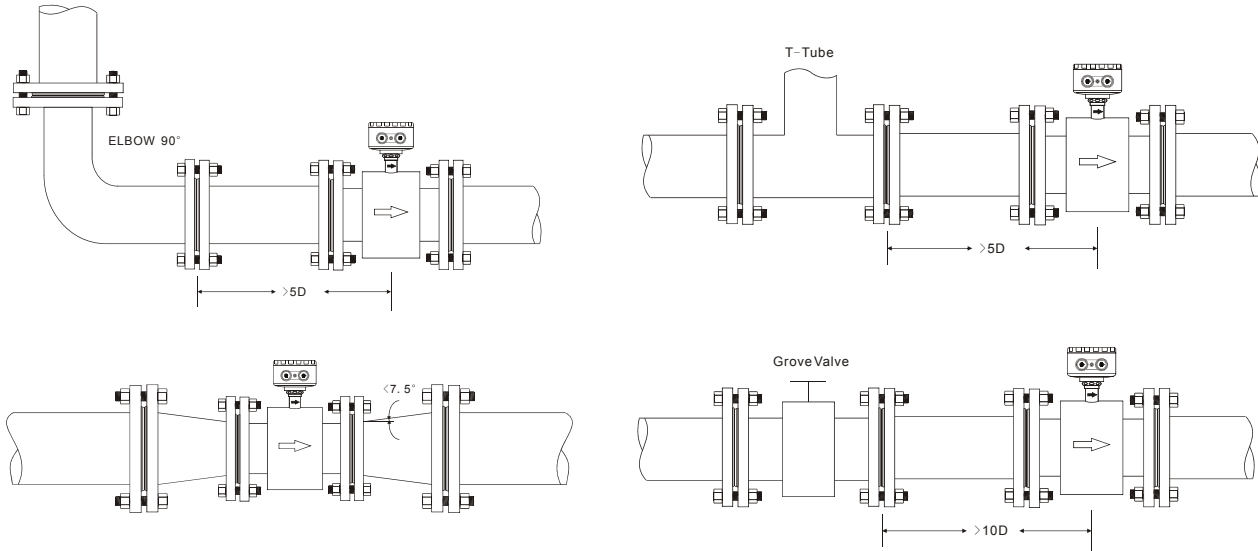
Please avoid the sunlight when you install the flowmeter, the ambient temperature between -25~60 Deg.C will be great.

### 2.2 Remove the interference of magnetic field

Please DO NOT install flowmeter near motor-driven machine, transformer, frequency transformer etc. for it will cause interference of magnetic field..

### 2.3 Length of straight tube

In order to guarantee the EM Flowmeter accuracy, upstream and downstream of the installation should satisfied the following conditions(Picture).

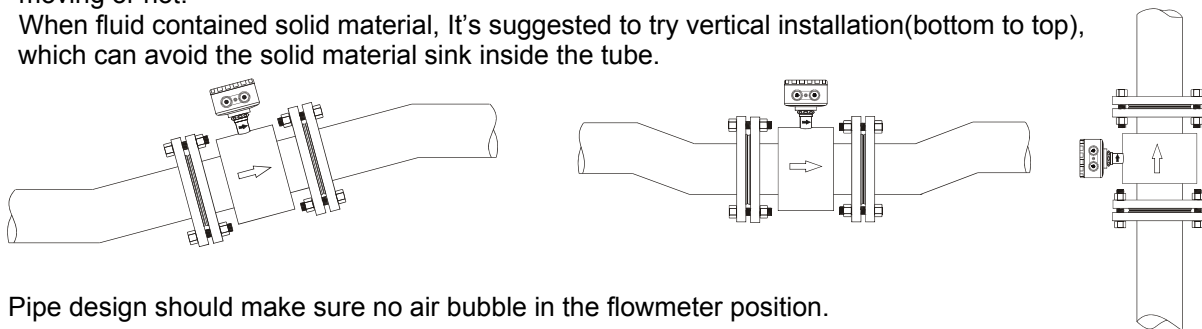


When the upside and downside is shrink tube. the degree  $\theta$  should be smaller than  $15^\circ$ .

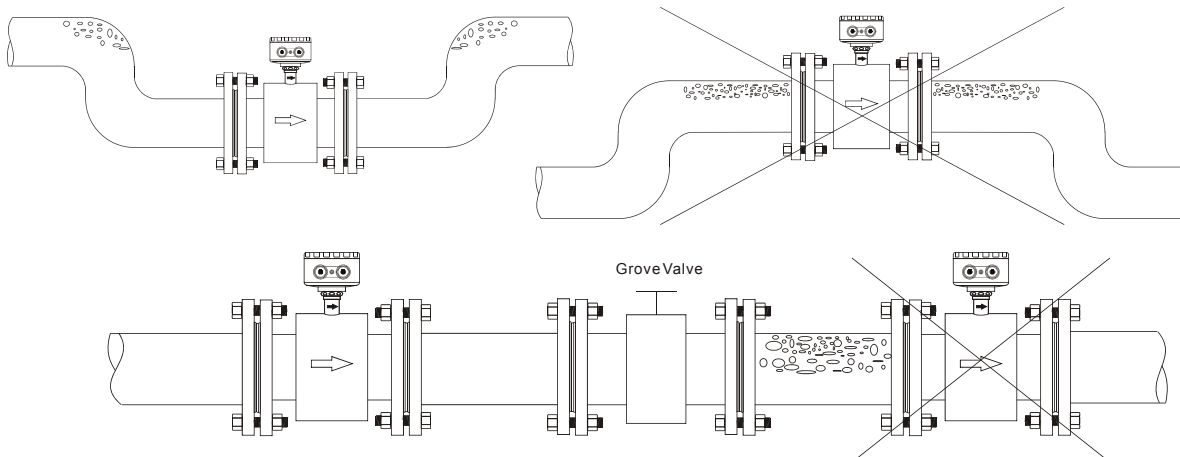
Generally tube installation, the flowmeter Upstream could try to stay 5D-10D ,Downstream 2D-5D.

### 2.4 Install method

- Flowmeter can be horizontal, vertical or slanting, please make sure the tube is full of fluid no matter if it is moving or not.
- When fluid contained solid material, It's suggested to try vertical installation(bottom to top), which can avoid the solid material sink inside the tube.

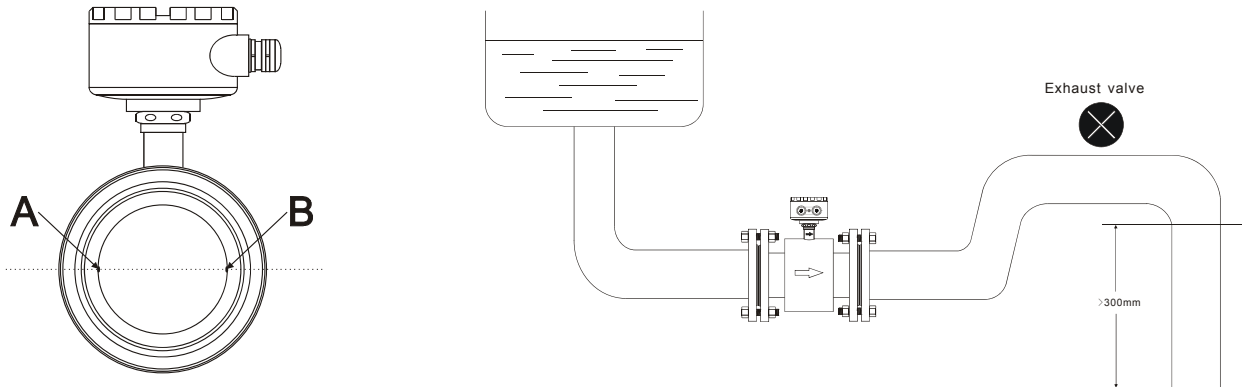


- Pipe design should make sure no air bubble in the flowmeter position.



d. Electrode position should parallel with ground

EM Flowmeter installed by horizontal or slanting the electrode position(A.B) should match the 2 side( right/left)of tube, converter(wiring box)should be top of the tube.

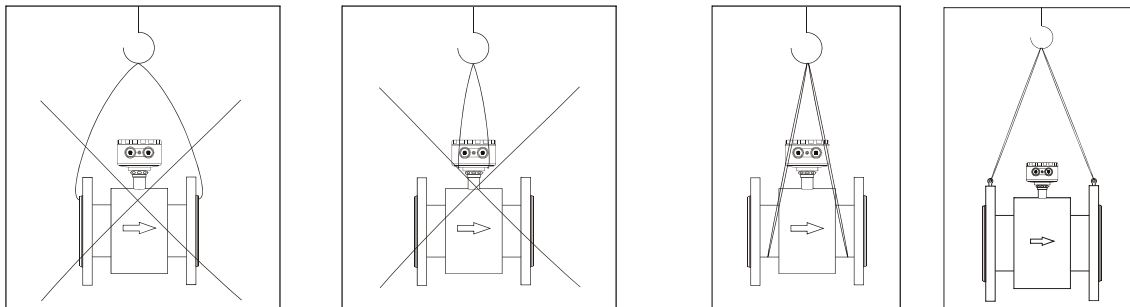


Horizontal install, the electrode position A.B should on the right and left side.

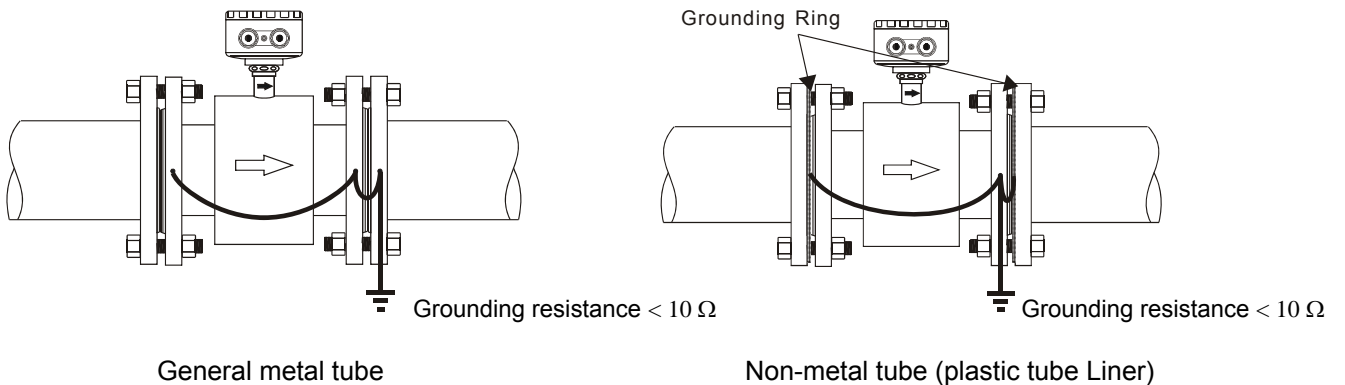
e. Transportation

When you moving, please remember DO NOT use rope through the flowmeter tube, it may cause Liner inside broken.

Please DO NOT use your hand or rope to hang on Converter or wiring box, if Flowmeter size is bigger than 80mm, because the material of converter and wiring box is tender aluminum, it can't stand huge weight.



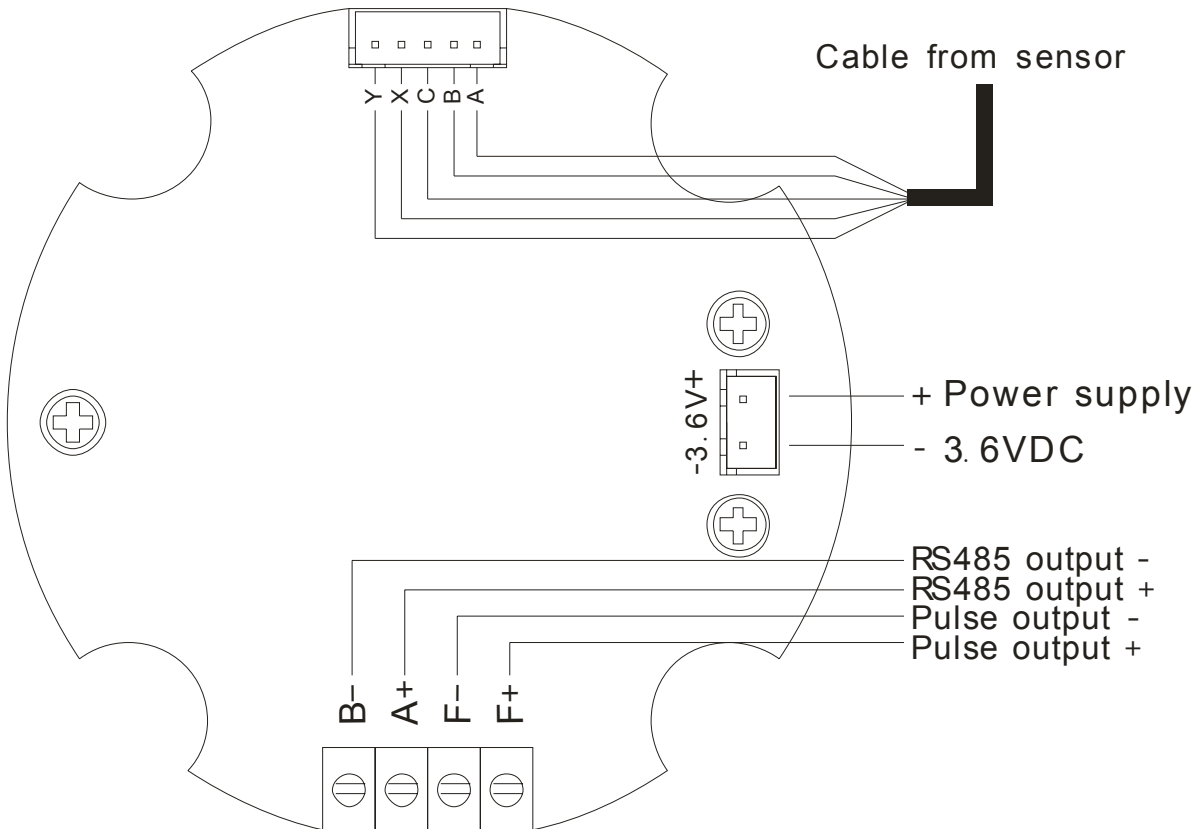
f. Grounding measure



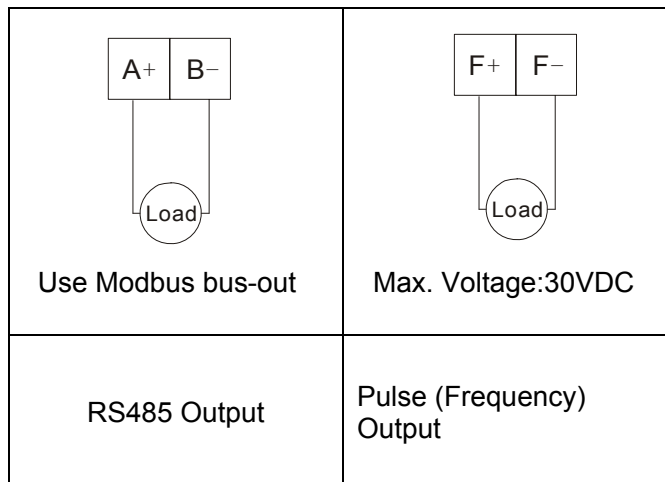
### 3. Converter AMC4000 Operating Instruction

#### 3.1 Wiring of power supply and signal output (compact version or separate version)

Unscrew the front cover and open screws in the converter. Then you will see every terminal and connect up the corresponding wirings.

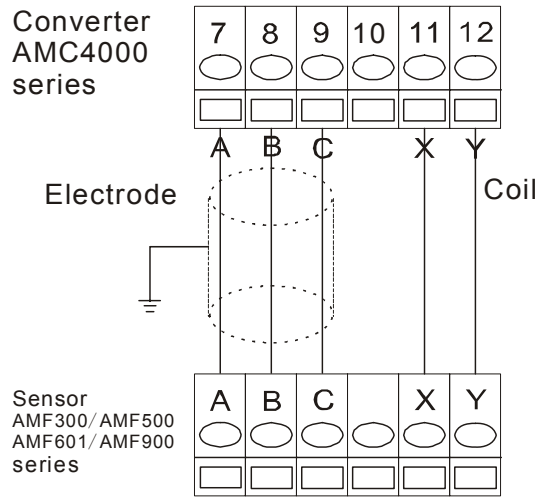


| Mark | Function                    | Note   |
|------|-----------------------------|--|
| F+   | Frequency or pulse output + | Frequency or pulse output is passive.<br>Load Current ≤ 20mA |
| F-   | Frequency or pulse output - |  |
| A+   | RS485 +                     |  |
| B-   | RS485 -                     |  |

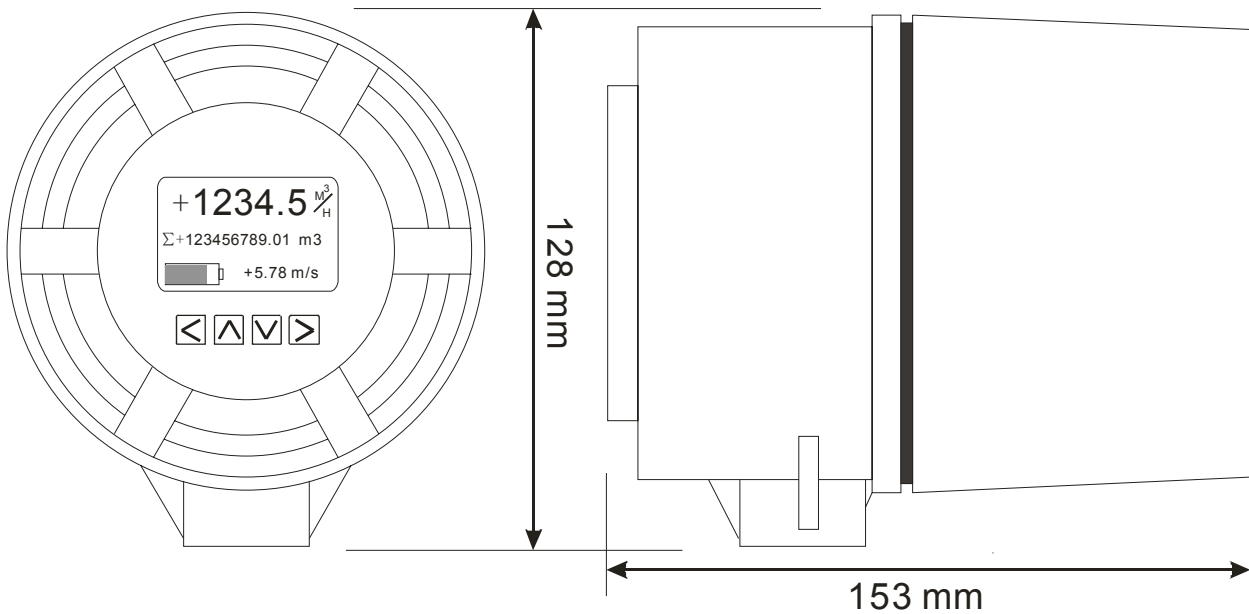








**3.2 Wiring type of separate version**



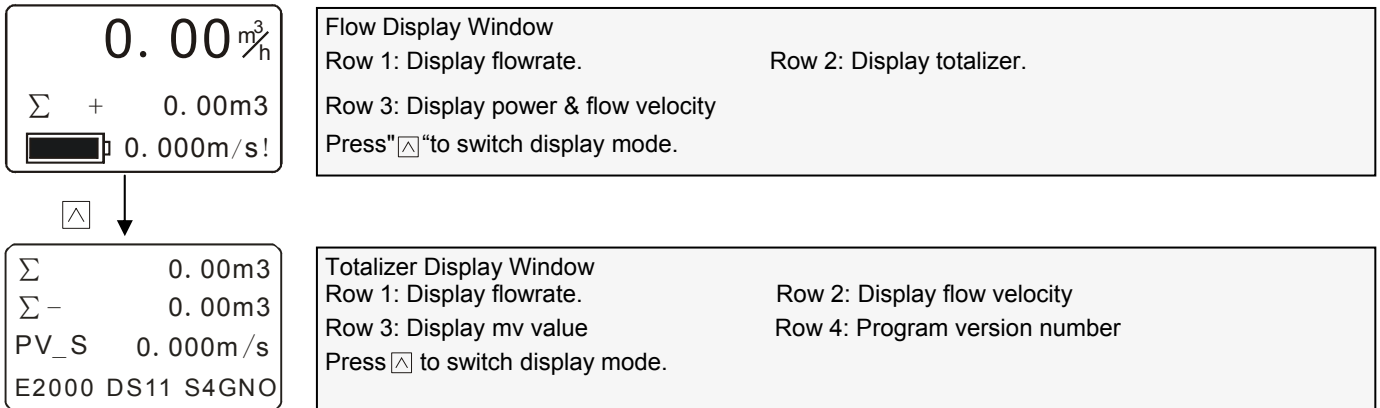
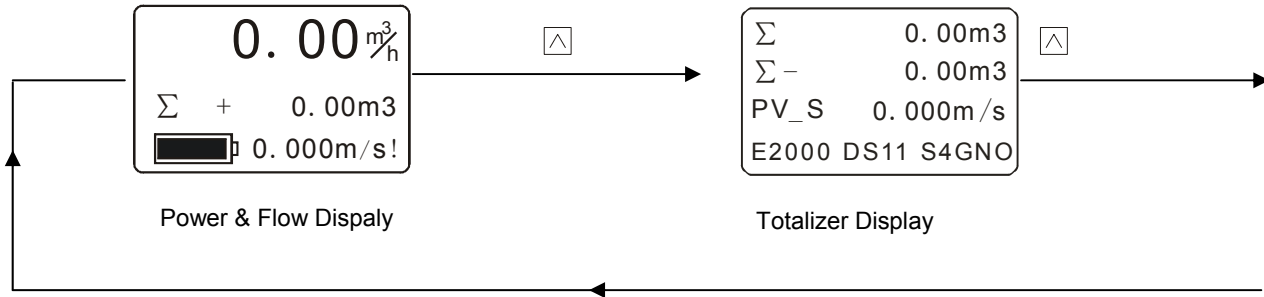
**3.3 AMC4000 panel configuration & dimension drawing**



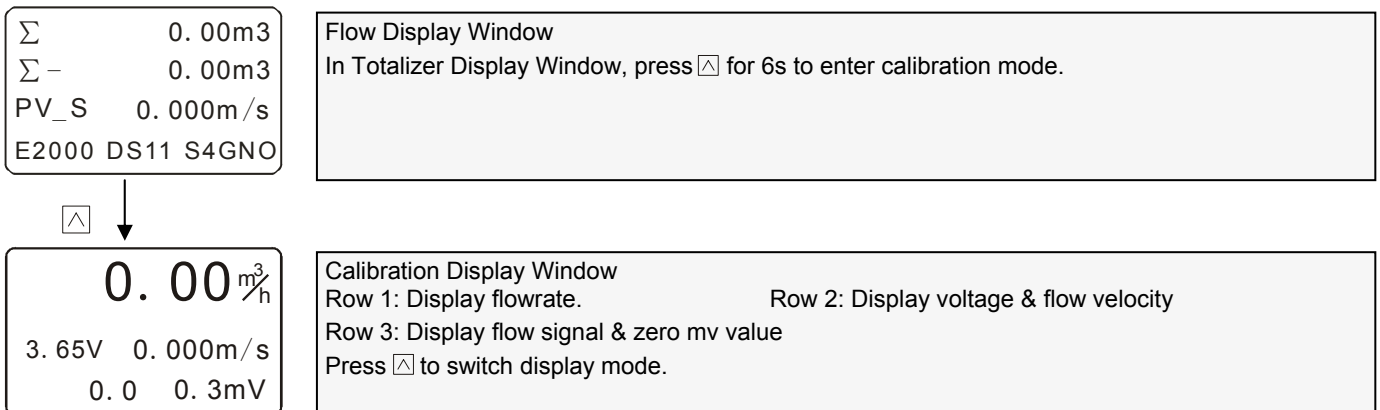
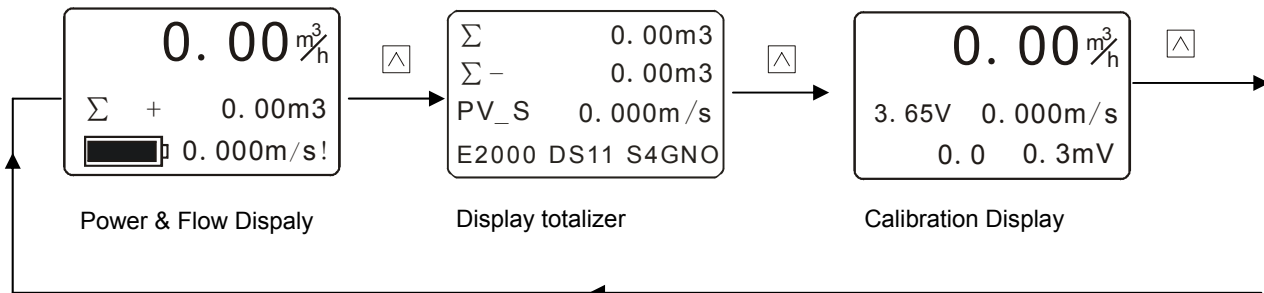
| Key Name | Button sign   | Functions in measure mode                          | Functions in calibration mode                                     |
|----------|---|--|---|
| Right    |  | 1. Enter parameter set.<br>2. Cancel modification. | 1. Enter parameter set.<br>2. Cancel modification.                |
| Down     |  | 1. Switch content.<br>2. Decrease value.           | 1. Decrease value.<br>2. Change value.<br>3. Enter parameter set. |
| Up       |  | 1. Switch content.<br>2. Increase value.           | 1. Switch content.<br>2. Increase value.                          |
| Left     |  | 1. Return.<br>2. Save.                             | 1. Return.<br>2. Save.  |

### 3.4 Set of measurement mode

Enter the normal display mode after power on, press  $\Delta$  to switch display mode.



### 3.5 Set of calibration mode



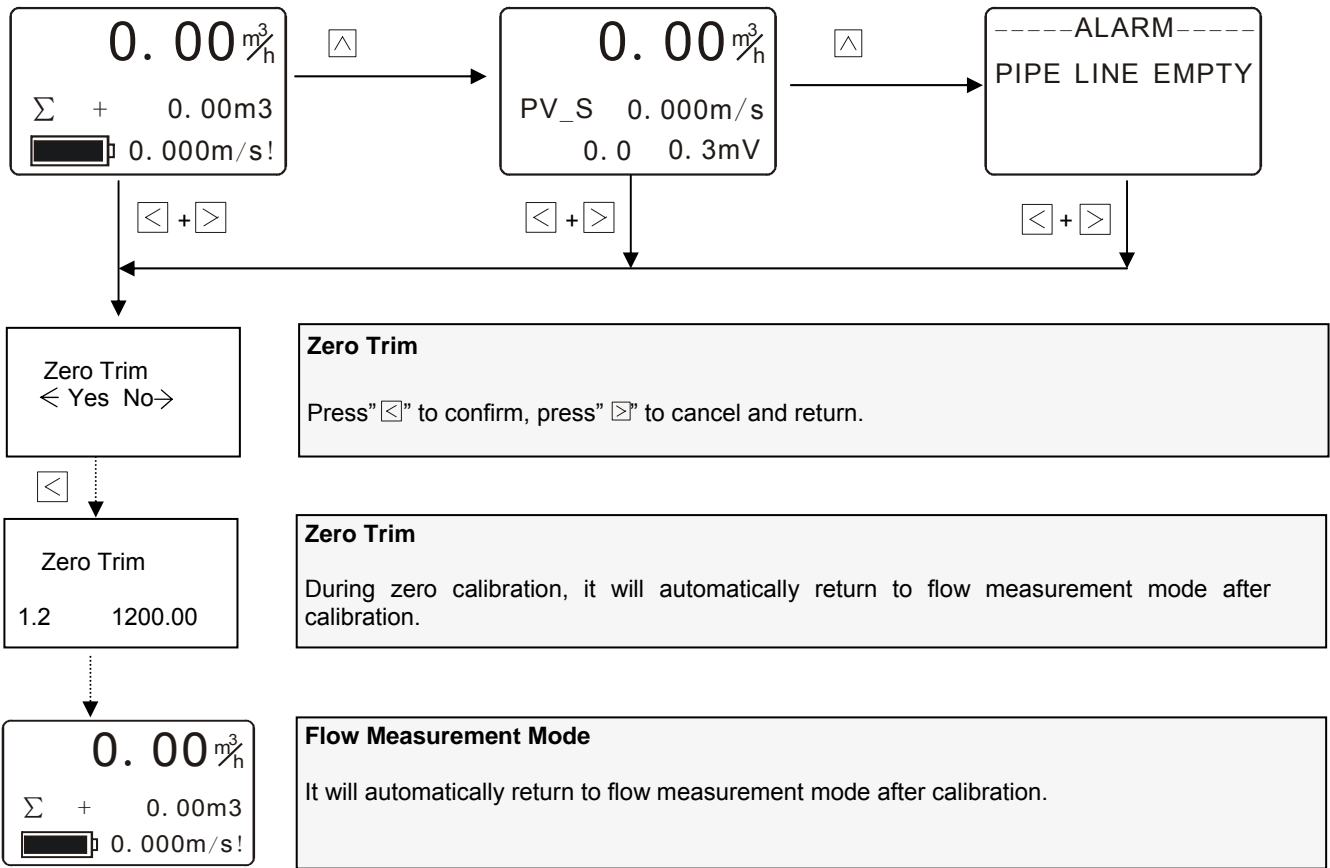
### 3.6 Contrast adjustment of display backlight

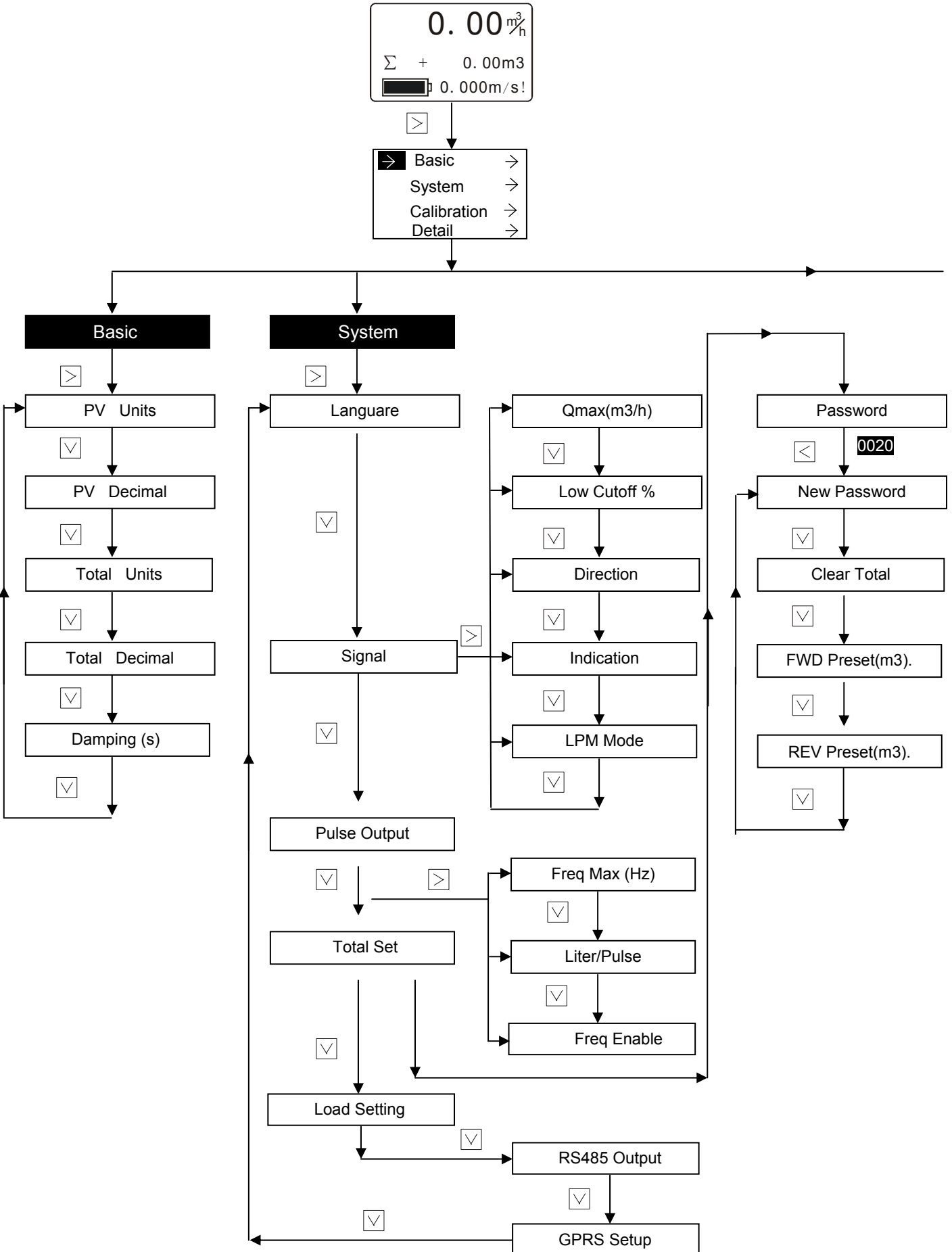
In any interface of measurement mode:

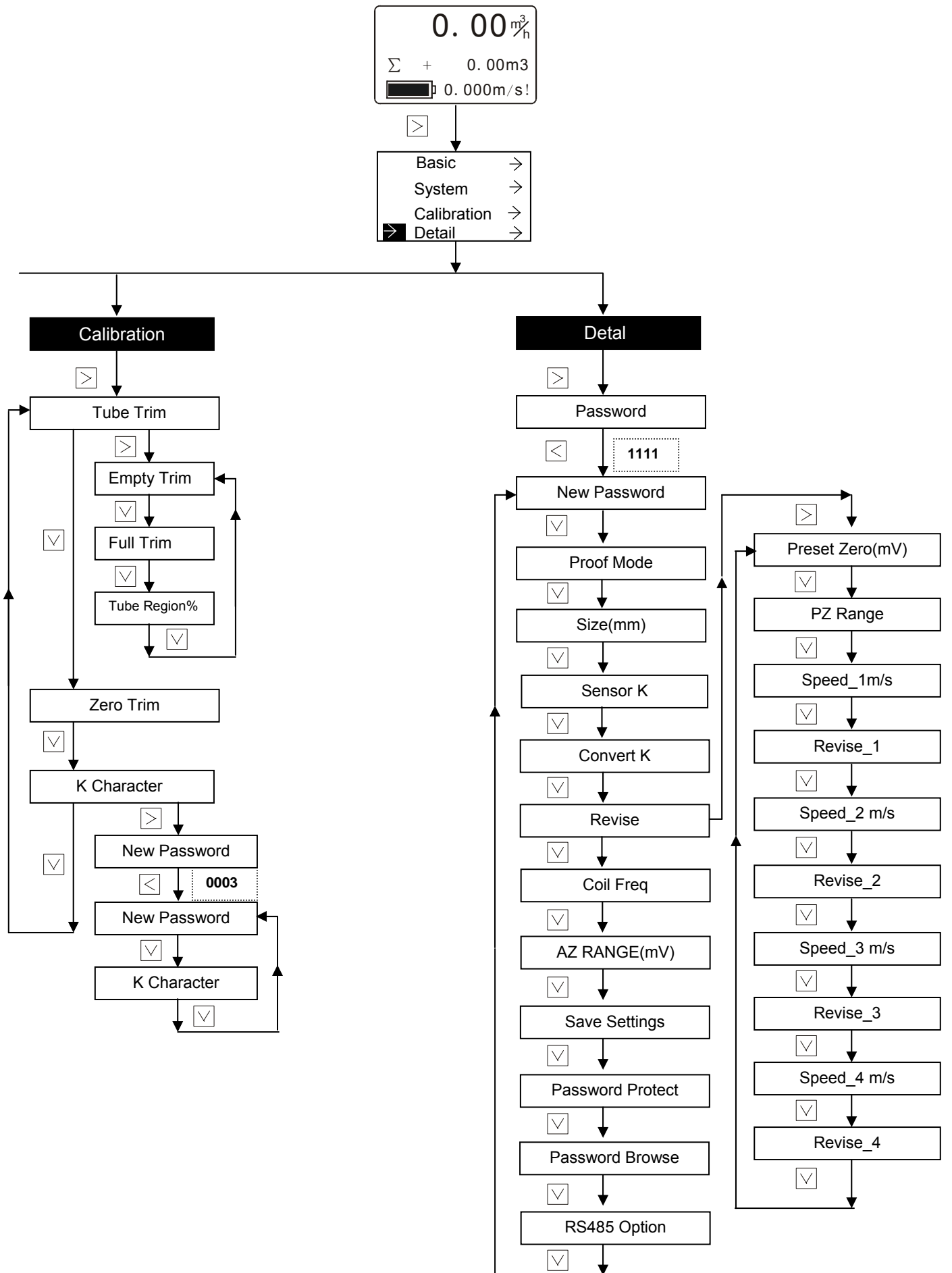
- (1) To add display contrast, press " $\Delta$ " and then press " $\Delta$ ".
- (2) To reduce display contrast, press " $\Delta$ " and then press " $\Delta$ ".

**3.7 Quick zero calibration.**

Quick zero trim is that, when the pipe is full of static fluid, press " $\square$ " " and then press " $\square$ " "to enter Zero Trim.

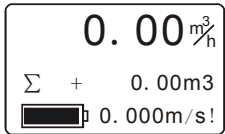




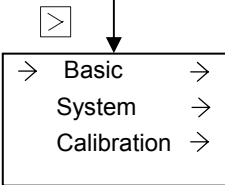


**3.9 OI of measurement mode**

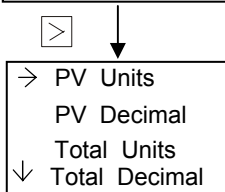
**3.9.1 Parameter Set in Basic Menu**



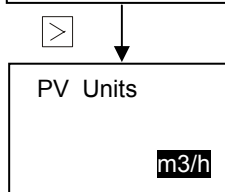
In any interface of measurement mode, press " " to confirm & enter Main Menu  
 Press  $\square/\square$  to choose "Basic",  
 press  $\square$  to cancel and return



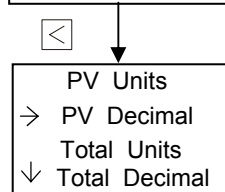
**Main Menu Selection Window**  
 Press  $\square/\square$  to choose "Basic", press "  $\square$  " to confirm & enter Parameter Set Window.



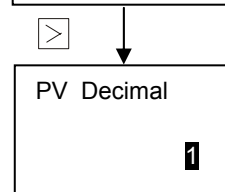
**Basic Parameter Selection Window**  
 Press  $\square/\square$  to choose "PV Units", press "  $\square$  " to confirm & enter PV Units Selection  
 Press  $\square$  to return to previous menu



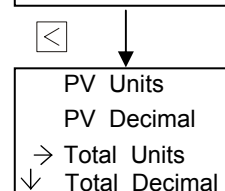
**PV Units Selection Window**  
 Press  $\square/\square$  to choose units  
 1.m3/h 2.G/s 3.G/m 4.G/h 5.L/s 6.L/m 7.L/h 8.m3/s 9.m3/m .  
 Press  $\square$  to confirm change or not, press "  $\square$  " to confirm, press "  $\square$  "to cancel and return



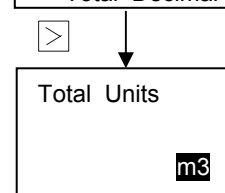
**Basic Parameter Selection Window**  
 Press  $\square/\square$  to choose "PV Decimal", press  $\square$  to confirm & enter PV Decimal Selection.  
 Press  $\square$  to return to previous menu



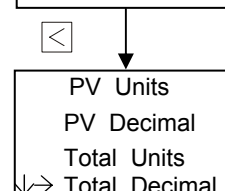
**PV Decimal Selection Window**  
 Press  $\square/\square$  to choose decimal  
 1digit, 2digit, 3digit  
 Press  $\square$  to confirm change or not, press  $\square$  to confirm, press  $\square$  to cancel and return



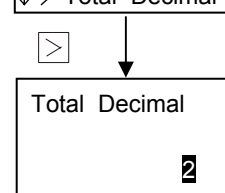
**Basic Parameter Selection Window**  
 Press  $\square/\square$  to choose "Total Units", Press  $\square$  to confirm & enter "Total Units" Selection  
 Press  $\square$  to return to previous menu



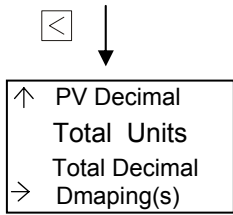
**Total Units Selection Window**  
 Press  $\square/\square$  to choose Total Units  
 1.m3 2.G 3.L  
 Press  $\square$  to confirm change or not, press  $\square$  to confirm, press  $\square$  to cancel and return



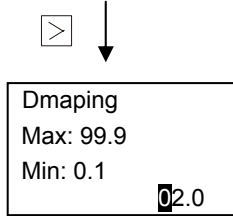
**Basic Parameter Selection Window**  
 Press  $\square/\square$  to choose "Total Decimal", Press  $\square$  to confirm & enter "Total Decimal" Selection.  
 Press  $\square$  to return to previous menu



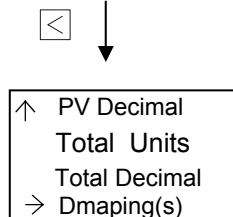
**Total Decimal Selection Window**  
 Press  $\square/\square$  to choose "total decimal".  
 1digit, 2digit, 3digit  
 Press  $\square$  to confirm change or not, press  $\square$  to confirm, press  $\square$  to cancel and return



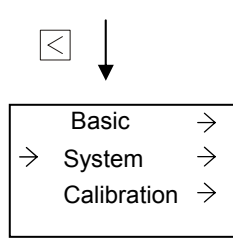
**Basic Parameter Selection Window**  
 Press /↔ to choose " Dmapping", press  to confirm & enter "Total Units" Selection  
 Press  to return to previous menu



**Dmapping Selection Window**  
 Press /↔ to set damp value, press  to move digital position.  
 Set range: 0.1~ 99.9  
 Press  to confirm change or not, press  to confirm, press  to cancel and return

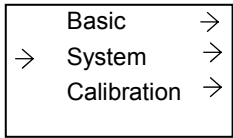


**Basic Parameter Selection Window**  
 Press  to return Main Menu.

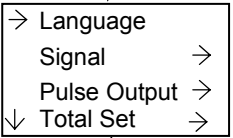


**Main Menu Selection Window**  
 Press /↔ to choose "System" , press to confirm & enter System Window.

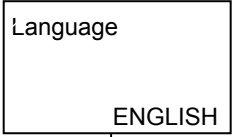
**3.9.2 Parameter Set in System Menu**



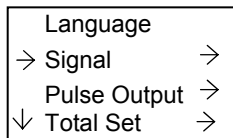
**Main Menu selection window**  
Press /↔ to choose "System", press  to confirm & enter System Window.



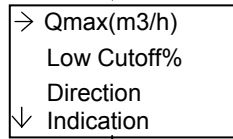
**System Parameter Selection window**  
Press /↔ to choose "Language", press  to confirm & enter "Language" Window.  
Press  to return to previous menu



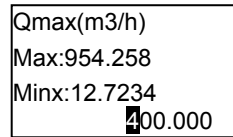
**Language Selection Window**  
Press /↔ to choose language  
1. ENGLISH 2.CHINESE  
Press  to confirm change or not, press  to confirm, press  to cancel and return



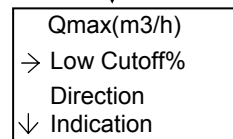
**System Parameter Selection Window**  
Press /↔ to choose "Signal", Press  to confirm & enter "Signal Parameter".  
Press  to return to previous menu



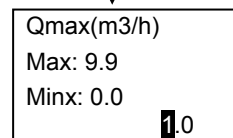
**Signal Parameter Selection Window**  
Press /↔ to choose "Qmax(m3/h)", press  to confirm & enter "Qmax m3/h" Setting  
Press  to return to previous menu



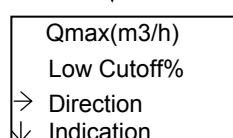
**Qmax(m3/h) Selection Window**  
Press /↔ to change value, press  to move digital cursor.  
Set Range: 12.7234~954.258 (Set range depends on the diameter.)  
Press  to confirm change or not, press  to confirm, press  to cancel and return.



**Signal Parameter Selection Window**  
Press /↔ to choose "Low Cutoff%". Press  to confirm & enter "Low Cutoff%" Setting  
Press  to return to previous menu

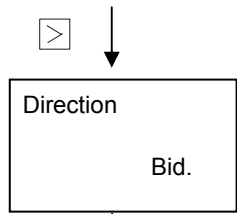


**Low Cutoff% Selection Window**  
Press /↔ to change value, press  to move digital cursor.  
Set Range:0~9.9  
Press  to confirm change or not, press  to confirm, press  to cancel and return

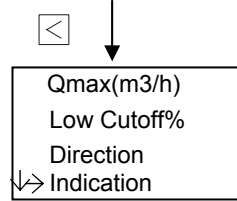


**Signal Parameter Selection Window**  
Press /↔ to choose "Direction", Press  to confirm & Direction selection window  
Press  to return to previous menu

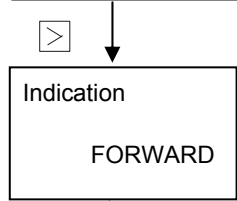




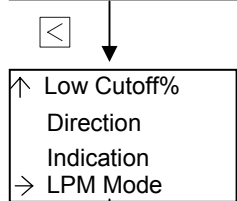
**Directio Selection Window**  
 Press /↔ to choose direction  
 1.Fwd. 2. Rev. 3.Bid.  
 Press  to confirm change or not, press  to confirm, press  to cancel and return



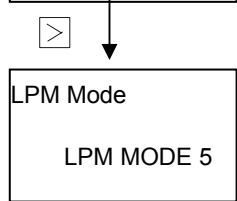
**Signal Parameter Selection Window**  
 Press /↔ to choose "Indication", Press  to confirm & enter Indication selection window  
 Press  to return to previous menu



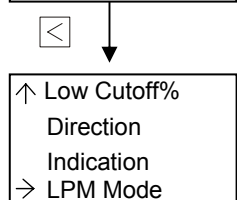
**Indiciom Selection Window**  
 Press /↔ to choose Indication  
 1.FORWARD 2. REVERSE  
 Press  to confirm change or not, press  to confirm, press  to cancel and return



**Signal Parameter Selection Window**  
 Press /↔ to choose "LPM Mode", Press  to confirm & enter LPM Mode Selection window  
 Press  to return to previous menu

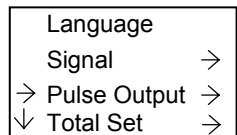


**LPM Mode Selection Window**  
 Press /↔ to choose energy conservation mode  
 1.LPM MODE 1 2. LPM MODE 2 3.LPM MODE 5 3.LPM MODE 10 4.LPM MODE 15  
 Press  to confirm change or not, press  to confirm, press  to cancel and return

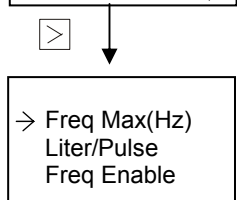


**Signal Parameter Selection Window**  
 Press /↔ to choose "LPM Mode", Press  to confirm & enter LPM Mode Selection window  
 Press  to quit "Signal" and return to "System" parameter selection window

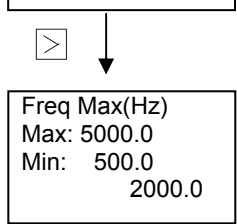
**Set of Pulse Parameters**



**System Parameter Selection Window**  
 Press /↔ to choose "Pulse Output", Press  to confirm & enter Pulse Out Setting window.  
 Press  to return to previous menu



**Pulse Output Parameter Window**  
 Press /↔ to choose "Freq Max", Press  to confirm & enter Freq. Max Hz Setting window  
 Press  to return to previous menu



**Freq Max(Hz) Selection Window**  
 Press /↔ to change value, press  to move digital cursor  
 Set range: 500~50000Hz.  
 Press  to confirm change or not, press  to confirm, press  to cancel and return



Freq Max(Hz)  
→ Liter/Pulse  
Freq Enable



Liter/Pulse  
Max: -----  
Min: 0.02222  
0.00000



Freq Max(Hz)  
Liter/Pulse  
→ Freq Enable



Freq Enable  
  
OPEN



Freq Max(Hz)  
Liter/P  
ulse  
→ Freq Enable



**Totalizer Reset**

Language  
Signal →  
Pulse Output →  
↓ Total Set →



Password  
  
0\*\*\*



→ New Password  
Clear Total  
FWD Preset(m3)  
↓ REV Preset(m3)



New Password  
  
0020



**Pulse Output Parameter Window**

Press / to choose "Liter/Pulse", Press to enter "Liter/Pulse" Setting window

Press to return to previous menu

**Liter/Pulse Selection Window**

Press / to change value, press to move digital cursor.

Min. value set: 0.02222

Press to confirm change or not, press to confirm, press to cancel and return

**Pulse Output Parameter Selection Window**

Press / to choose "Freq Enable", Press to enter Pulse Switch Setting window

Press to return to previous menu

**Freq Enable Selection Window**

Press / to choose open or pulse output

1.OPEN 2.CLOSE

Press to confirm change or not, press to confirm, press to cancel and return

**Pulse Output Parameter Selection Window**

Press / to choose "Freq Enable", Press to enter Pulse Switch Setting window

Press to return to previous menu

**System Parameter**

Press / to choose "Total Set", Press to confirm & enter "Total Set"

Press to return to previous menu

**Password Window**

Press / to change value, press to move digital cursor.

Password: 0020

Press to confirm

**Total Set Parameter Window**

Press / to choose "New Password", Press to confirm & enter "New Password" .

Press to return to previous menu

**New Password Selection Window**

Press / to change value, press to move digital cursor.

Press to confirm change or not, Press to confirm, Press to cancel and return.

(Do remember the password)

New Password  
 → Clear Total  
 FWD Preset(m3  
 REV Preset(m3)

**Total Set Parameter Selection Window**  
 Press /  to choose "Clear Total", Press  to confirm & enter "Clear Total".  
 Press  to return to previous menu

↓  
 Clear Total  
 No

**Clear Total Selction Window**  
 Press /  to choose clear total or not  
 1.No 2.Yes  
 Press  to confirm change or not, Press  to confirm, Press  to cancel and return.

↓  
 New Password  
 Clear Total  
 → FWD Preset(m3  
 REV Preset(m3)

**Total Set Parameter Selection Window**  
 Press /  to choose "FWD Preset(m3).", Press  to confirm & enter "FWD Preset(m3)"  
 Press  to return to previous menu

↓  
 FWD Preset (m3)  
 Max: -----  
 Min: -----  
 000.000000

**FWD Preset (m3) Selection Window**  
 Press /  to change value, press  to move digital cursor.  
 Press  to confirm change or not, Press  to confirm, Press  to cancel and return

↓  
 New Password  
 Clear Total  
 FWD Preset(m3  
 → REV Preset(m3)

**Total Set Parameter Selection Window**  
 Press /  to choose "REV Preset(m3).", Press  to confirm & enter "REV Preset(m3)"  
 Press  to return to previous menu

↓  
 REV Preset (m3)  
 Max: -----  
 Min: -----  
 000.000000

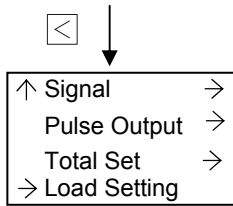
**REV Preset(m3) Selection Window**  
 Press /  to change value, press  to move digital cursor.  
 Press  to confirm change or not, Press  to confirm, Press  to cancel and return

↓  
 New Password  
 Clear Total  
 FWD Preset(m3  
 → REV Preset(m3)

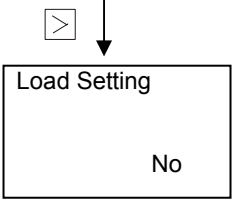
**Total Set Parameter Selection Window**  
 Press /  to choose "REV Preset(m3).", Press  to confirm & enter "REV Preset(m3)"  
 Press  to return to previous menu

↓

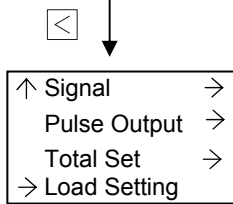
**Factory Reset**



**System Parmeter Selection**  
 Press /↔ to choose "Load Setting", Press  to confirm & enter "Load Setting".  
 Press  to return to previous menu

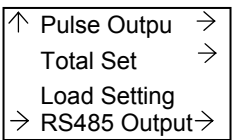


**Load Setting Selection Window**  
 Press /↔ to choose load setting or not  
 1.No 2.Yes  
 Press  to confirm change or not, Press  to confirm, Press  to cancel and return

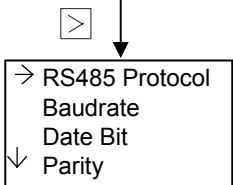


**System Parmeter Selection Window**  
 Press /↔ to choose "Load Setting", Press  to confirm & enter "Load Setting".  
 Press  to return to previous menu

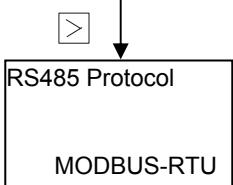
**Set of RS485 Paramerters**



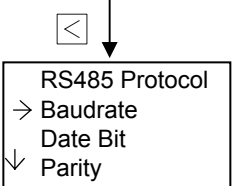
**System Parameter Selection Window**  
 Press /↔ to choose RS485 Output, press  to confirm & enter RS485 Output Set Window.  
 Press  to return to previous menu



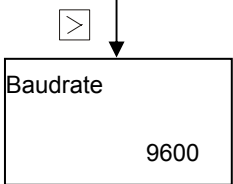
**RS485 Protocol Set Window**  
 Press /↔ to choose "RS485 Output", press  to confirm & enter "RS485 Output" Set Window.  
 Press  to return to previous menu



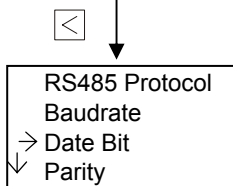
**RS485 Protocol Set Window**  
 Press /↔ to choose MODBUS Types.  
 1. MODBUS-RTU 2. MODBUS-ASC  
 Press  to confirm change or not, Press  to confirm, Press  to cancel and return



**RS485 Protocol Set Window**  
 Press /↔ to choose "Baudrate", press  to confirm and enter Baudrate Set Window.  
 Press  to return to previous menu



**Baudrate Set Window**  
 Press /↔ to choose Baudrate.  
 Type: 1200 2400 4800 9600  
 Press  to confirm change or not, Press  to confirm, Press  to cancel and return



**RS485 Protocol Set Window**  
 Press /↔ to choose "Date Bit", press  to confirm and enter Date Bit Set Window.  
 Press  to return to previous menu

Date Bit  
8

**Date Bit Set Window**  
Press /↔ to choose Date Bit.,  
7 & 8(The communication protocol is RTU and the fixed date bit is 8)  
Press  to confirm change or not, Press  to confirm,Press↵ to cancel and return



RS485 Protocol  
Baudrate  
Date Bit  
↕→ Parity

**RS485 Protocol Set Window**  
Press /↔ to choose "Parity", press  to confirm and enter Parity Set Window.  
Press  to return to previous menu



Parity  
NONE

**Parity Set Window**  
Press /↔ to choose Parity Type:  
1.NONE 2.ODD 3.EVEN  
Press  to confirm change or not, Press  to confirm,Press↵ to cancel and return



↑ Baudrate  
Date Bit  
Parity  
↕→ Stop Bit

**RS485 Protocol Set Window**  
Press /↔ to choose "Stop Bit", press  to confirm and enter Stop Bit Set Window.  
Press  to return to previous menu



Stop Bit  
1

**Stop Bit Set Window**  
Press /↔ to choose Stop Bit.  
1 and 2  
Press  to confirm change or not, Press  to confirm,Press↵ to cancel and return



↑ Date Bit  
Parity  
Stop Bit  
→ Dev Address

**RS485 Protocol Set Window**  
Press /↔ to choose "Dev Address", press  to confirm and enter Dev Address Set Window.  
Press  to return to previous menu



Dev Address  
001

**Dev Address Set Window**  
Press /↔ to change value and press  to move the digit cursor.  
Press  to confirm change or not, Press  to confirm,Press↵ to cancel and return



↑ Date Bit  
Parity  
Stop Bit  
→ Dev Address

**RS485 Protocol Set Window**  
Press /↔ to choose "Dev Address", press  to confirm and enter Dev AddressSet Window.  
Press  to return to previous menu



↑ Pulse Output →  
Total Set →  
Load Setting  
↕→ RS485 Output→

**System Parameter Selection Window**  
Press /↔ to choose "RS485 Output", press  to confirm and enter "RS485 Output"Set Window.  
Press  to return to previous menu

**GPRS Parameter Set**

Using GPRS function needs external GPRS equipment.

↑ Total Set →  
 Load Setting  
 RS485 Output →  
 → GPRS Setup →

**System Parameter Selection Window**

Press /↩ to choose "GPRS Setup", press  to confirm and enter "GPRS" Set Window.

Press  to return to previous menu



→ Upload Mode  
 Cycle Upload

**GPRS Setup Window**

Press /↩ to choose "Upload Mode", press  to confirm and enter Upload Mode Set Window.

Press  to return to previous menu



Upload Mode  
 Passivity

**Upload Mode Set Window**

Press /↩ to choose Upload Mode:

1.Passivity 2.Initiative

Press  to confirm change or not, Press  to confirm, Press  to cancel and return



Upload Mode  
 → Cycle Upload

**GPRS Setup Set Window**

Press /↩ to choose " Cycle Upload", press  to confirm and enter Cycle Upload Set Window.

Press  to return to previous menu



Cycle Upload  
 010

**Cycle Upload Set Window**

Press /↩ to change value and press  to move digit cursor.

Press  to confirm change or not, Press  to confirm, Press  to cancel and return



Upload Mode  
 → Cycle Upload

**GPRS Setup Set Window**

Press /↩ to choose " Cycle Upload", press  to confirm and enter Cycle Upload Set Window.

Press  to return to previous menu



↑ Total Set →  
 Load Setting  
 RS485 Output →  
 → GPRS Setup →

**System Parameters Selection Window**

Press /↩ to choose "GPRS Setup", press  to confirm and enter "GPRS" Set Window.

Press  to return to previous m



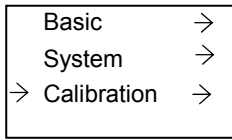
Basic →  
 System →  
 → Calibration →

**Main Menu Selection Window**

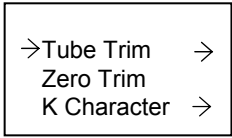
Press /↩ to choose "Calibration", press  to confirm and enter Calibration Window.

Press  to return to previous menu

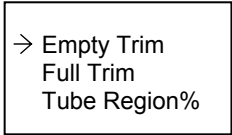
**3.9.3 Parameter Set in Calibration Menu**



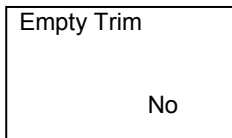
**Main Menu Selection Window**  
 Press /↵ to choose "Calibration", Press  to confirm & enter "Calibration"



**Calibration Parameter Selection Window**  
 Press /↵ to choose "Tube Trim", Press  to confirm & enter "Tube Trim"  
 Press  to return to previous menu



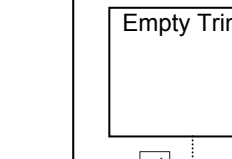
**Tube Trim Selection Window**  
 Press /↵ to choose "Empty Trim", Press  to confirm & enter "Empty Trim"  
 Press  to return to previous menu



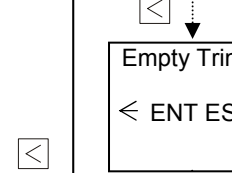
**Empty Trim Selection Window**  
 Press /↵ to choose Empty trim or not  
 1.No 2.Yes  
 Press  to confirm change or not, Press  to confirm, Press  to cancel and return



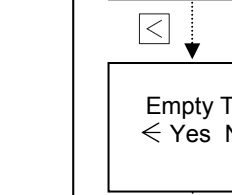
**Empty Trim Selection Window**  
 Press /↵ to choose Empty trim or not  
 1.No 2.Yes  
 Press  to confirm change or not, Press  to confirm, Press  to cancel and return



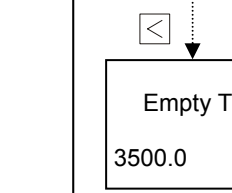
**Empty Trim Selection Window**  
 Press  to confirm, Press  to cancel and return



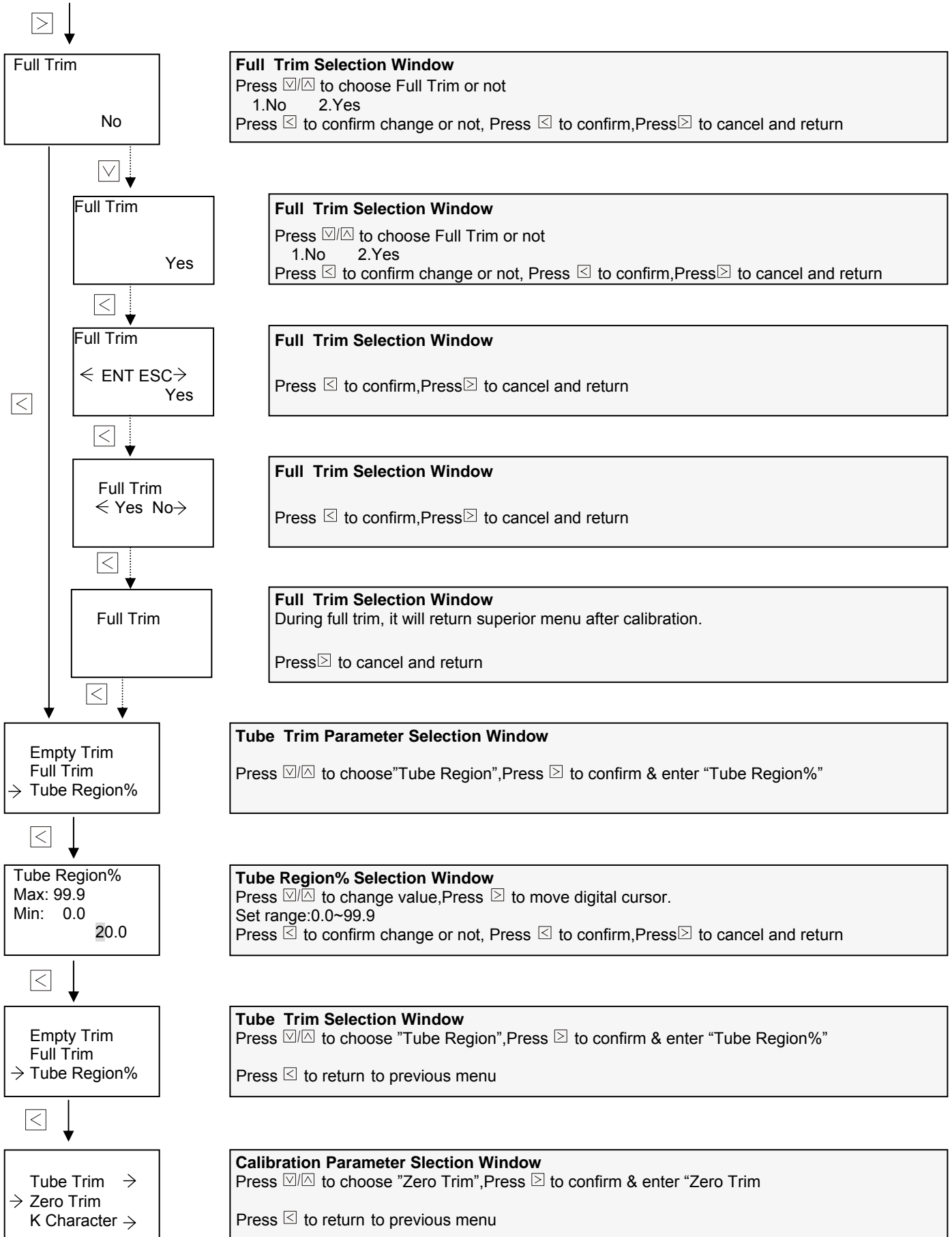
**Empty Trim Selection Window**  
 Press  to confirm, Press  to cancel and return



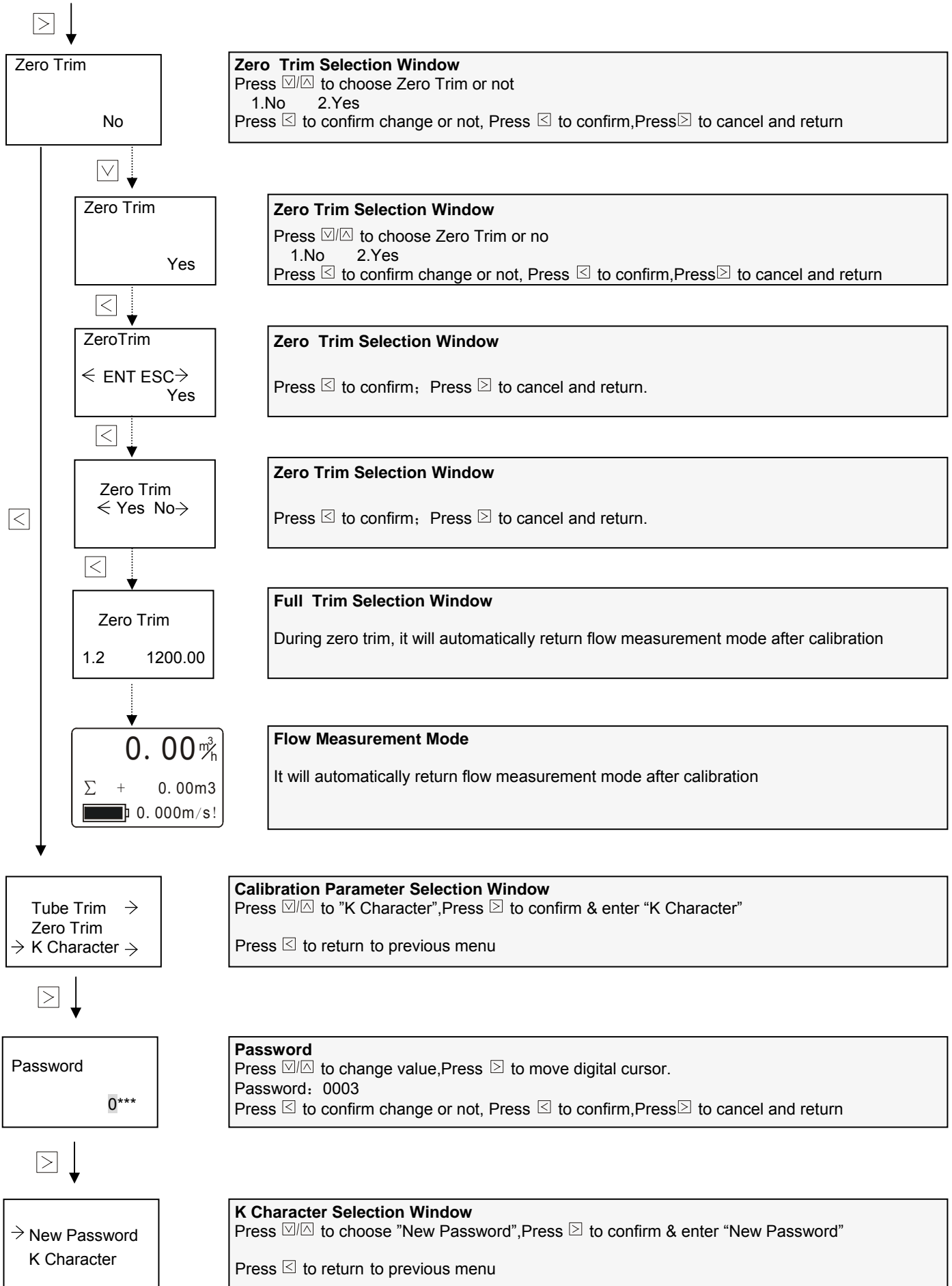
**Empty Trim Selection Window**  
 During empty trim, it will automatically return superior menu  
 Press  to cancel and return

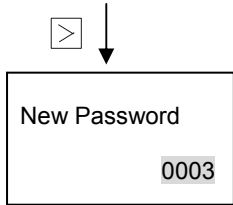


**Tube Trim Parameter Selection Window**  
 Press /↵ to choose "Full Trim", Press  to confirm & enter Full Trim.  
 Press  to return to previous menu

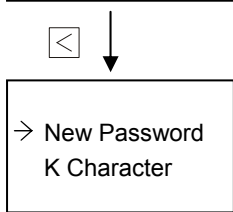




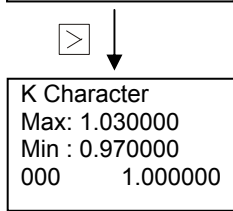




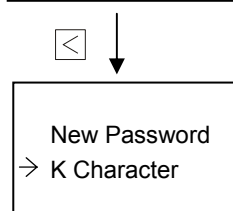
**New Password**  
 Press  $\square/\square$  to change value, Press  $\square$  to move digital cursor.  
 Press  $\square$  to confirm change or not, Press  $\square$  to confirm, Press  $\square$  to cancel and return  
 (Do remember the password)



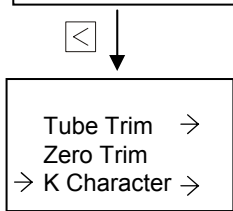
**K Character Selection Window**  
 Press  $\square/\square$  to choose "K Character", Press  $\square$  to confirm & enter "K Character"  
 Press  $\square$  to return to previous menu



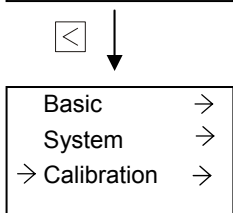
**K Character Selection Window**  
 Press  $\square/\square$  to change value, Press  $\square$  to move digital cursor.  
 Set range: 0.97~1.03  
 Press  $\square$  to confirm change or not, Press  $\square$  to confirm, Press  $\square$  to cancel and return



**K Character Selection Window**  
 Press  $\square/\square$  to choose "K Character", Press  $\square$  to confirm & enter "K Character"  
 Press  $\square$  to return to previous menu



**Calibration Parameter Selection Window**  
 Press  $\square/\square$  to choose "K Character", Press  $\square$  to confirm & enter "K Character"  
 Press  $\square$  to return to previous menu

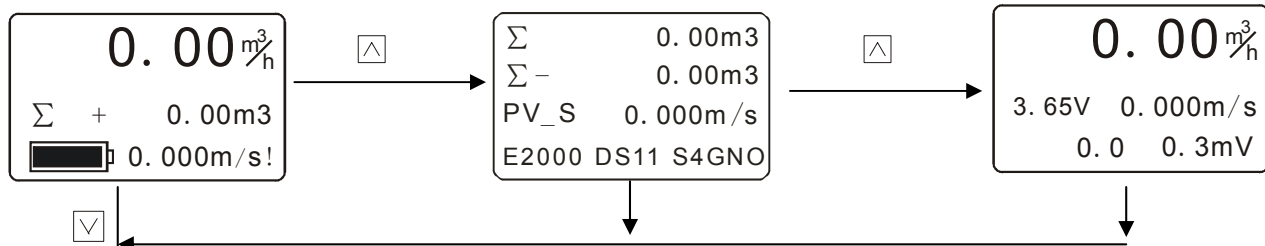


**Main Menu Selection Window**  
 Press  $\square/\square$  to choose "Calibration", Press  $\square$  to confirm & enter "Calibration"

**3.10 OI of Calibration Mode**

**Parameter Set in Detail Menu**

Press  to enter calibration model, "detailed configuration", in any window of flow measurement mode..



Password  
0\*\*\*

**Password Window**  
Press / to change value, press  to move digital cursor  
Password: 1111  
Press  to confirm & enter "Detail"

→ New Pasword  
Proof Mode  
Size(mm)  
↓ Sensor K

**Detail Menu Selection Window**  
Press / to choose "New Password", Press  to confirm & enter "New Password"  
Press  to quit menu.

New Password  
1111

**New Password Selection Window**  
Press / to change value, press  to move digital cursor  
(Do remember the password)  
Press  to confirm change or not, Press  to confirm, Press  to cancel and return

New Pasword  
→ Proof Mode  
Size(mm)  
↓ Sensor K

**Detail Menu Selection Window**  
Press / to choose "Proof Mode", Press  to confirm & enter "Proof Mode"  
Press  to quit menu

Proof Mode  
No

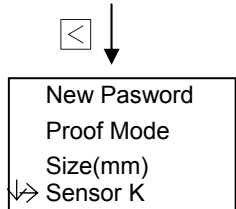
**Proof Mode Selection Window**  
Press / to choose Proof Mode or not.  
1.No 2.Yes  
Press  to confirm change or not, Press  to confirm, Press  to cancel and return

New Pasword  
Proof Mode  
→ Size(mm)  
↓ Sensor K

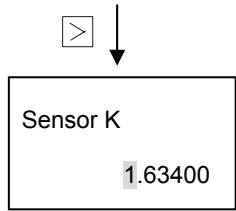
**Detail Menu Selection Window**  
Press / to choose "Size(mm)", Press  to confirm & enter "Size" Setting  
Press  to quit menu.

Size(mm)  
125

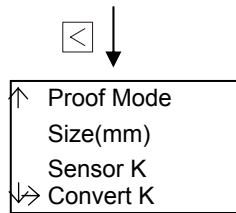
**Size(mm) Selection Window**  
Press / to choose size.  
Press  to confirm change or not, Press  to confirm, Press  to cancel and return



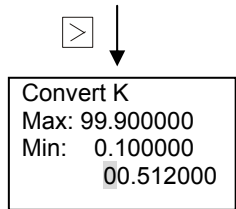
**Detail Selection Window**  
Press  $\square/\square$  to choose "Sensor K", Press  $\square$  to confirm & enter "Sensor K"  
Press  $\square$  to quit menu



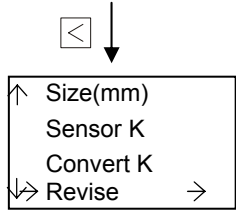
**Sensor K Selection Window**  
Press  $\square/\square$  to change value, press  $\square$  to move digital cursor.  
Press  $\square$  to confirm change or not, Press  $\square$  to confirm, Press  $\square$  to cancel and return



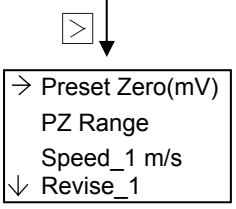
**Detail Menu Selection Window**  
Press  $\square/\square$  to choose "Convert K", Press  $\square$  to confirm & enter "Convert K"  
Press  $\square$  to quit menu



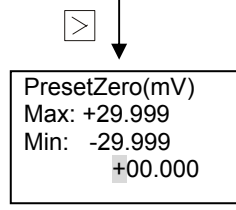
**Convert K Selection Window**  
Press  $\square/\square$  to change value, press  $\square$  to move digital cursor.  
Set range: 0.1~99.9  
Press  $\square$  to confirm change or not, Press  $\square$  to confirm, Press  $\square$  to cancel and return



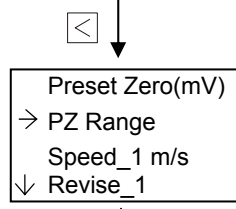
**Detail Menu Selection Window**  
Press  $\square/\square$  to choose "Revise", Press  $\square$  to confirm & enter "Revise"  
Press  $\square$  to quit menu



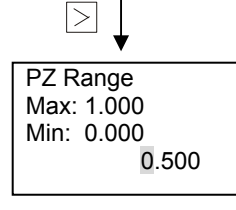
**Revise Selection Window**  
Press  $\square/\square$  to choose "Preset Zero(mV)", Press  $\square$  to confirm & enter "Preset Zero"  
Press  $\square$  to return to previous menu



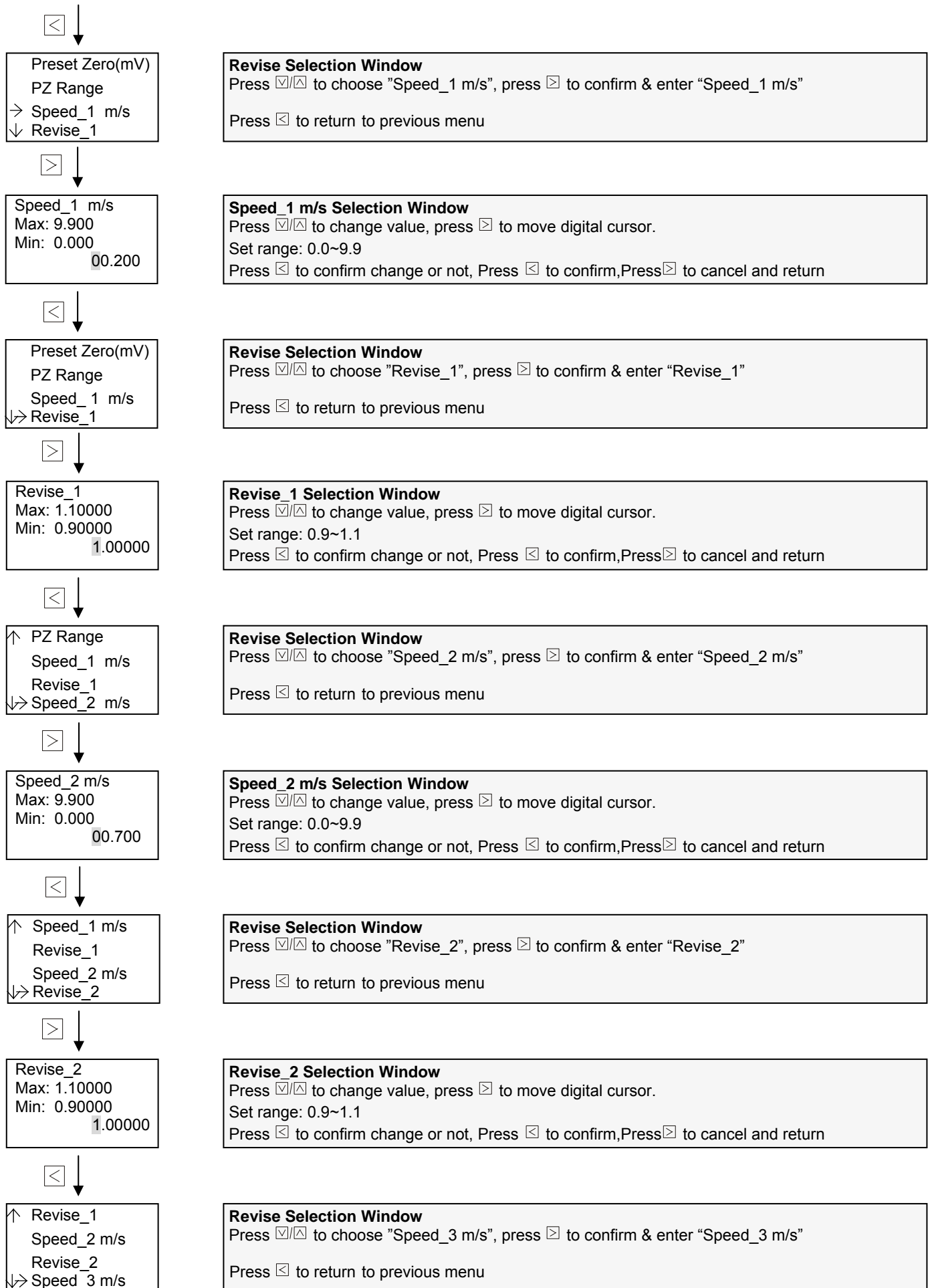
**Preset Zero(mV) Selection Window**  
Press  $\square/\square$  to change value, press  $\square$  to move digital cursor.  
Set range: -29.999~+29.999  
Press  $\square$  to confirm change or not, Press  $\square$  to confirm, Press  $\square$  to cancel and return

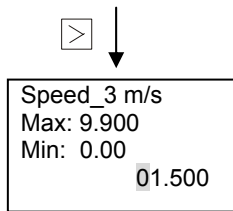


**Revise Selection Window**  
Press  $\square/\square$  to choose "PZ Range", press  $\square$  to confirm & enter "PZ Range m/s"  
Press  $\square$  to return to previous menu

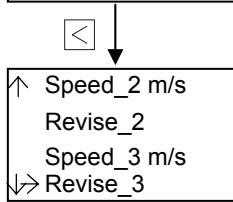


**PZ Range Selection Window**  
Press  $\square/\square$  to change value, press  $\square$  to move digital cursor.  
Set range: 0.0~1.0  
Press to confirm change or not, press to confirm, press to cancel and return.

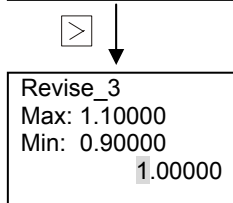




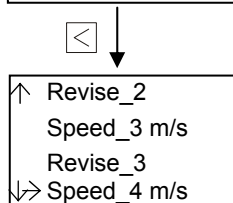
**Speed\_3 m/s Selection Window**  
Press /↔ to change value, press  to move digital cursor.  
Set range: 0.0~9.9  
Press  to confirm change or not, Press  to confirm, Press  to cancel and return



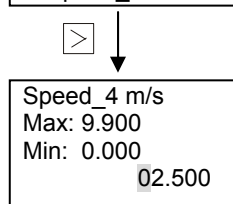
**Revise Selection Window**  
Press /↔ to choose "Revise\_3", press  to confirm & enter "Revise\_3"  
Press  to return to previous menu



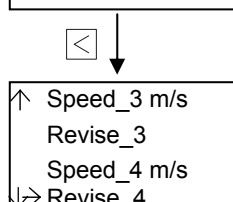
**Revise\_3 Selection Window**  
Press /↔ to change value, press  to move digital cursor.  
Set range: 0.9~1.1  
Press  to confirm change or not, Press  to confirm, Press  to cancel and return



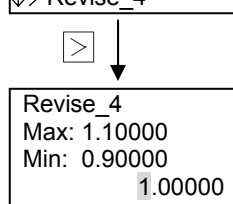
**Revise Selection Window**  
Press /↔ to choose "Speed\_4 m/s", press  to confirm & enter "Speed\_4 m/s"  
Press  to return to previous menu



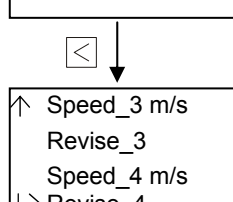
**Speed\_4 m/s Selection Window**  
Press /↔ to change value, press  to move digital cursor.  
Set range: 0.0~9.9  
Press  to confirm change or not, Press  to confirm, Press  to cancel and return



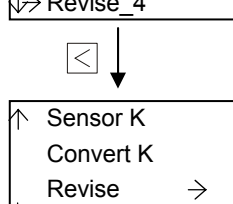
**Revise Selection Window**  
Press /↔ to choose "Revise\_4", press  to confirm & enter "Revise\_4"  
Press  to return to previous menu



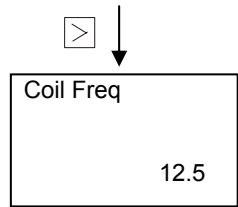
**Revise\_4 Selection Window**  
Press /↔ to change value, press  to move digital cursor.  
Set range: 0.9~1.1  
Press  to confirm change or not, Press  to confirm, Press  to cancel and return



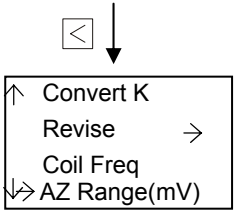
**Revise Selection Window**  
Press /↔ to choose "Revise\_4", press  to confirm & enter "Revise\_4"  
Press  to return to previous menu



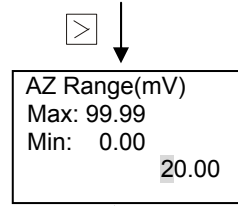
**Detail Menu Selection Window**  
Press /↔ to choose "Coil Freq", Press  to confirm & enter "Coil Freq"  
Press  to quit menu



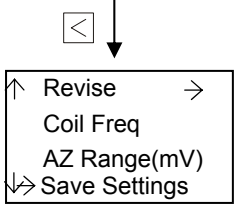
**Coil Freq Selection Window**  
 Press /  to change coil Freq.  
 6.25Hz 12.5 Hz 25 Hz  
 Press  to confirm change or not, Press  to confirm, Press  to cancel and return



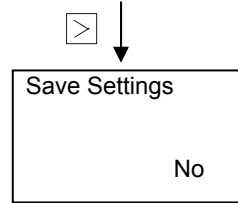
**Detail Menu Selection Window**  
 Press /  to choose "AZ Range(mV)", Press  to confirm & enter "AZ Range"  
 Press  to quit menu



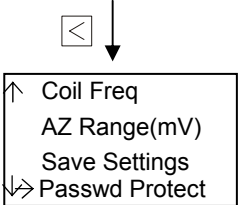
**AZ Range(mV) Selection Window**  
 Press /  to change value, press  to move digital cursor  
 Set rang: 0~99.99  
 Press  to confirm change or not, Press  to confirm, Press  to cancel and return



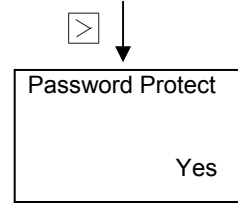
**Detail Menu Selection Window**  
 Press /  to choose "Save Settings", Press  to confirm & enter "Save Setting"  
 Press  to quit menu



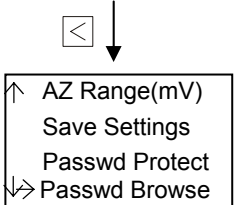
**Save Settings Selection Window**  
 Press /  to choose save setting or not  
 1. No 2. Yes  
 Press  to confirm change or not, Press  to confirm, Press  to cancel and return



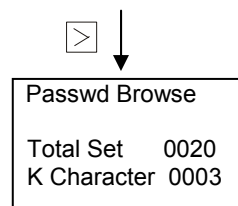
**Detail Menu Selection Window**  
 Press /  to choose "Password Protect", Press  to confirm & enter "Password Protect"  
 Press  to quit menu



**Password Protect Selection Window**  
 Press /  to choose password protect or not  
 1. No 2. Yes  
 Press  to confirm change or not, Press  to confirm, Press  to cancel and return



**Detail Menu Selection Window**  
 Press /  to choose "Password Browse", Press  to confirm & enter "Password Browse"  
 Press  to quit menu



**Passwd Browse**  
 Password Inquiry: Total Set 0020  
 K Character 0003  
 Press  to return.

