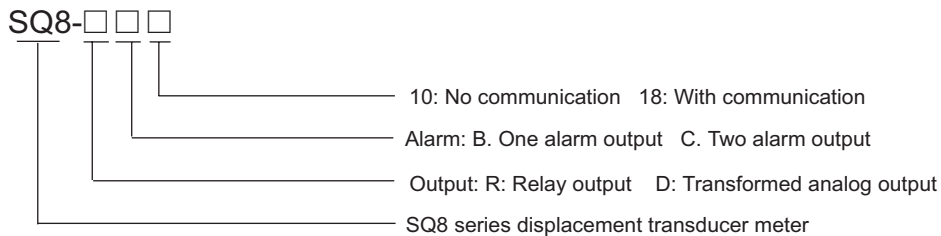# SQ8 Displacement Transducer Meter User Manual

⊙ Two alarm output with settable Upper / Lower limit

⊙ One 4-20mA transformed analog output

⊙ RS485 communication interface, Modbus RTU protocol

▽ Notice: This series sensor meter is connected with displacement transducer which voltage is proportional to resistance, and the total resistance is not less than 1KΩ
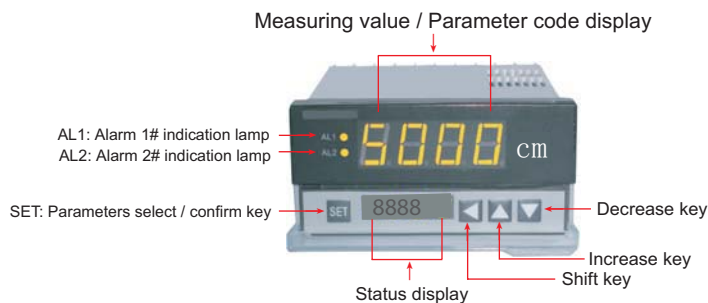
1. Model

SQ8-□□□

10: No communication   18: With communication

Alarm: B. One alarm output   C. Two alarm output

Output: R: Relay output   D: Transformed analog output

SQ8 series displacement transducer meter

2.Technical Parameters

Power Supply	AC/DC 85~265V 50Hz/60Hz DC 24V (To be ordered)
Display Range	0.001-9999 Float decimal point display
Transformed Analog Output	4~20mA Drive load ≤ 600Ω, Accuracy：±0.5%F.S
Communication	Standard RS485 communication interface, Modbus RTU protocol
Relay Capacity	AC 250V/3A or DC 30V/5A
Dielectric Strength	Between power supply connectors and other connectors, between relay output connectors and other connectors: AC 1800V, leakage current 0.5mA, 60S; Between low voltage signal connectors: DC 600V leakage current 0.5mA, 60S
Insulation Impendance	≥ 100MΩ / 500V DC
Working Environment	Temperature：0-50℃ Humidity：≤ 85%RH
Dimension	96W*48H*100L(mm)

3. Panel Indication

Measuring value / Parameter code display

AL1: Alarm 1# indication lamp
AL2: Alarm 2# indication lamp

SET: Parameters select / confirm key

Decrease key

Increase key
Shift key

Status display

4. Operation

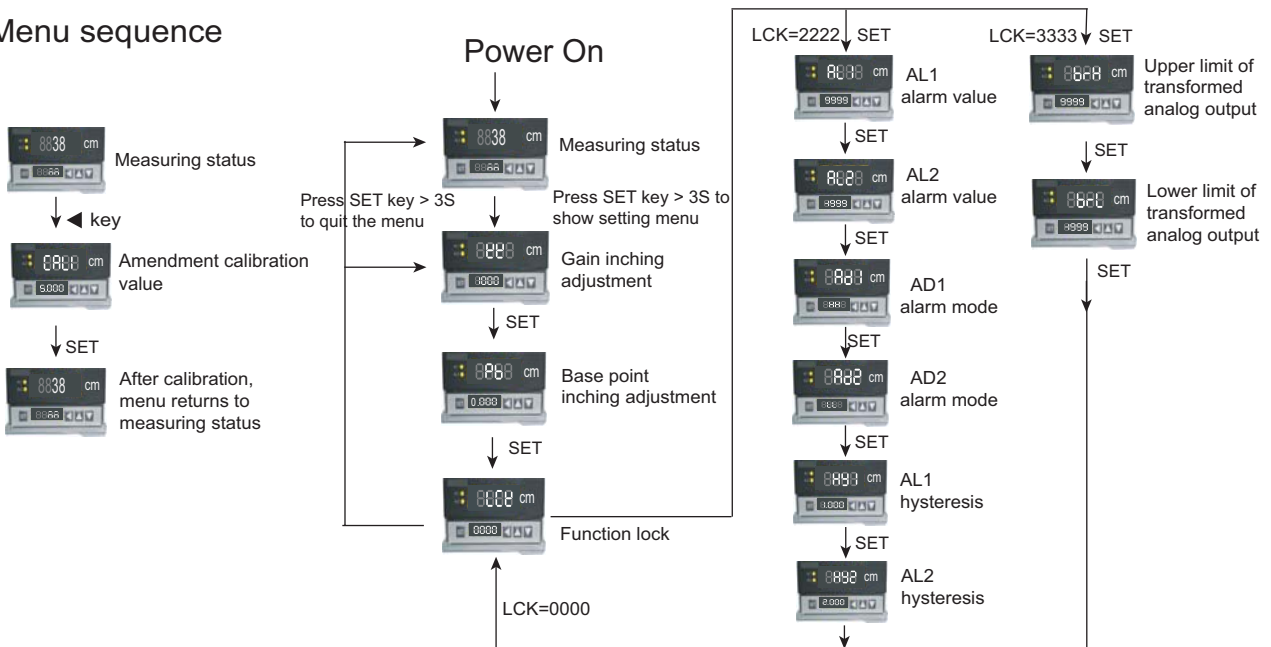### 1. Operation Steps

a) In measuring status press SET key for 3 seconds to show setting menu.

b) In setting menu press SET key to shift sub-menu.

c) Prss ◄ key to make the digit to be changeable（The digit to be changed flickers.）

d) When value is changeable, press◄ , ▲ and ▼ key to change value.

e) Press SET key to save the changed value.

f) Press▲ or ▼ key to make the decimal point to be changeable.(decimal point is flickering）.

g) Press ◄ key to change decimal point.

h) Press SET key to save the changed value.

2. One key calibration base point function

a) Please put the standard length object to be measured to the measuring & detecting equipment, press ◄ key to show standard menu, and press ◄ , ▲ and ▼ key to input standard length

b) Press SET key to finish the calibration and menu returns to measuring status.

c) After calibration,the calibration function will be locked automatically. If users want to unlock this function, they have to set the LCK as 1111, and then press SET key to save LCK value. Press SET key more than 3S to quit the menu, the calibratin function will be unlocked.

d) If users do not think the measuring result is very good after calibration, they can change the "KK" and "PB" value in the menu to get a better result. The display value = KK value × measuring value + PB value.
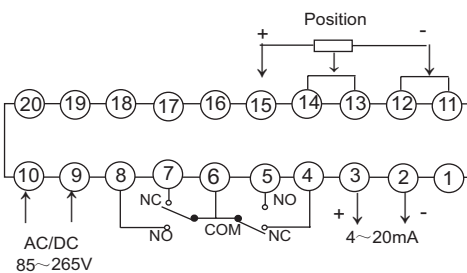
5. Menu sequence

Power On

Measuring status — ◀ key — Amendment calibration value — SET — After calibration, menu returns to measuring status

Press SET key > 3S to quit the menu

Measuring status — Press SET key > 3S to show setting menu — Gain inching adjustment — SET — Base point inching adjustment — SET — Function lock

LCK=0000

LCK=2222 SET — AL1 alarm value — SET — AL2 alarm value — SET — AD1 alarm mode — SET — AD2 alarm mode — SET — AL1 hysteresis — SET — AL2 hysteresis

LCK=3333 SET — Upper limit of transformed analog output — SET — Lower limit of transformed analog output — SET

Menu Indication

No.	Parameter Code	Ex-factory Value	Indication
1	KK	Default value is 1	Gain inching adjustment
2	PB	Default value is 0	Base point inching adjustment
3	LCK	0000	Function lock
4	AL1	9999	AL1 alarm value
5	AL2	-1999	AL2 alarm value
6	AD1	HH	AL1 alarm mode
7	AD2	LL	AL2 alarm mode
8	HY1	1.000	AL1 hysteresis
9	HY2	1.000	AL2 hysteresis
10	HH	——	Upper limit alarm
11	LL	——	Lower limit alarm
12	DH	——	Positive deviation alarm
13	DL	——	Negative deviation alarm

6. Connection Drawing

Position

20 19 18 17 16 15 14 13 12 11

10 9 8 7 6 5 4 3 2 1

AC/DC 85~265V

NC NO COM NC NO

+ 4~20mA -

Note: Please subject to the drawing on the meter if any changes.

7. Dimension

96

48

100

44

$91^{+0.5}_{-0}$

30

$45^{+0.5}_{-0}$

25