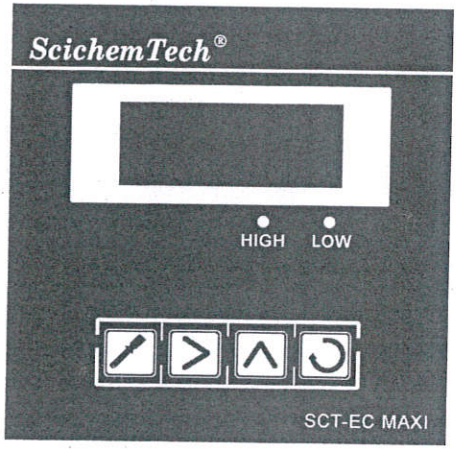
Instruction Manual

SCT–EC MAXI



Scientific Chemical Technologies
(ScichemTech)

1.Overview

This series are measurement and control instruments for industrial on-line conductivity, widely used for the measurement and control of pure water in pharmacy, chemical industry, electronic industry, foodstuffs, beverage and etc.

Instrument features:

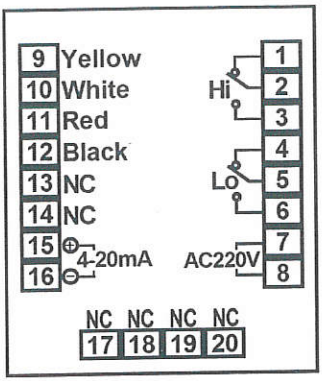
1. Conductance, switch display of temperature
2. With high and low limit set in the range of full range and the backlash set of relay
3. Isolation of 4～20mA current signal output, convenient for far-distance data transmission

2.Technical performance

Measuring range:	0～19.99, 0～199.9, 0～1999 μS/cm
Display method:	liquid-crystal display with 3½ bit LCD Segment code
Accuracy:	1.5% (FS)
Stability:	±2×10-3(FS)/24h
Work pressure:	0～0.5MPa
Media temperature:	0～50℃
Temperature compensation:	with 25℃ as the reference point, digital compensation
Output current:22	isolation of 4～20mA active output
Control output:	double contacts output of high limit (normally open) and low limit (normally closed)
Contact capacity:	7A/250V AC (with resistance load)
Optional electrode:	1.0cm-1 metal electrode
Cable length:	5m in normal condition or ___m otherwise provided
Environment condition:	temperature: 0～50℃; humidity: ≤85%RH
Power supply:	AC 220V±10%　50Hz
Overall dimension:	96×96×120mm (height x width x depth)
Face opening:	92×92mm
Installation method:	panel-mounted

3. Installation

3.1 Geometric size



Back cover plate drawing

Instructions:

1. Normally closed terminal of the high limit control relay
2. Public terminal of the high limit control relay
3. Normally open terminal of the high limit control relay
4. Normally closed terminal of the low limit control relay
5. Public terminal of the low limit control relay
6. Normally open terminal of the low limit control relay
7. 220V Alternating current 200v
8. 220V Alternating current 220v
9. Yellow thread end of the measuring electrode
10. White thread end of the measuring electrode
11. Red thread end of the measuring electrode
12. Black thread end of the measuring electrode
13. 14.17.18.19.20. No internal connection
15. 4-20 Ma positive terminal
16. 4-20 mA negative terminal

4. Instrument operation

4.1 Keyboard instructions

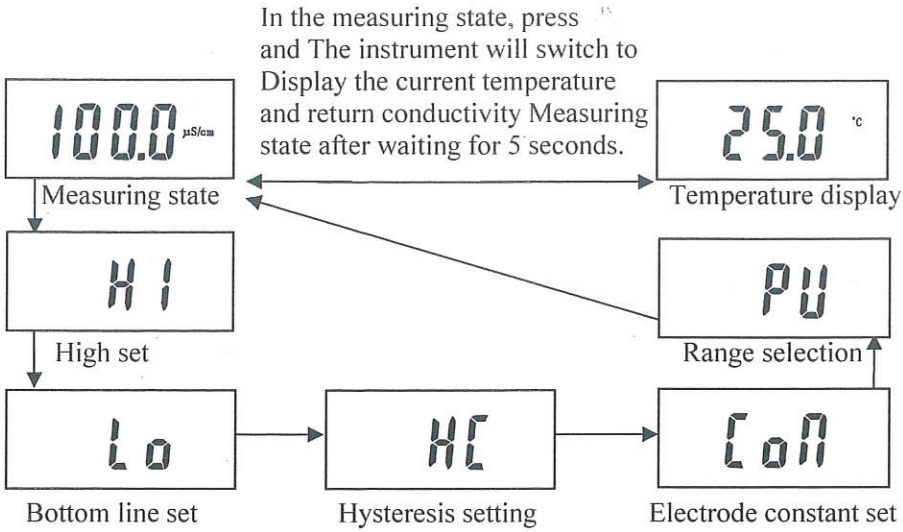
Selection key of the function menu

Left shift key

Add key

Data validation key

4.2 Instrument operation



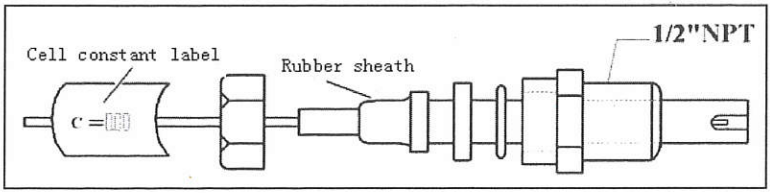
Instructions: press continuously and the setting options of the instrument will switch among the above states; press to enter into the set menu and modify the values needed for setting through press and ; finally press to keep the set data.

Note: 1. After finishing setting each option, should be pressed or the data could not be kept. The set value changes from blinking to no blinking.

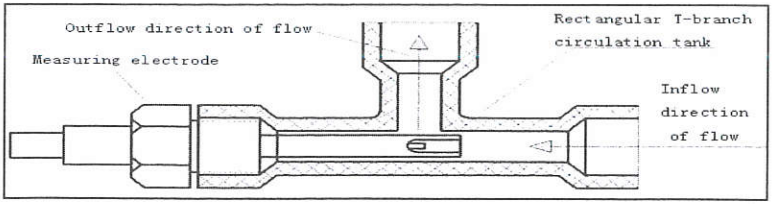
2. High and low limit should be set to be on the range of full range but the high limit should be larger than the low limit.

5. Installation of the measuring electrode

In order to ensure that the measuring electrode could accurately measure the conductivity of a pipeline and avoid data misalignment caused by air bubbles or backwater on the measuring conductivity cell, please install it strictly according to the following figure:



Electrode appearance



Pipeline installation method

Note: 1. The electrode should be installed in the place with low position, stable flow rate and where it's not easy to bring air bubbles in the pipeline.

2. The conductivity cell, whether horizontal installation or vertical installation, should be immersed in the flow.

3. In the case that the measuring signal is a kind of weak electronic signal, the measuring cable should trace line independently and the connection of it with power line and control line in a same group of pipe-lines should be prohibited to prevent from affecting its functions.

4. In the case that the measuring cable needs to be lengthened, please contact the manufacturer and agree on it before the supply of goods.

6. Maintenance:

6.1 The measuring electrode is a precision device, no disassembling can be conducted and its shape and size cannot be changed; and no strong acid or alkali solvents can be used for its cleaning or the electrode constant would be changed and thus the precision of measurement be affected.

6.2 The measuring electrode is for special purpose and no change can be made randomly.

6.3 The instrument should be set in a dry environment or a control box to avoid measuring misalignment or electric leakage of it due to the sputtering of droppings or wetting.

7、Complete set of the instrument

Instrument	one piece
Sensor	one piece
Mounting clamp	one pair
Instruction book	one copy
Certificate of conformity	one piece