



# **Conductivity controller**

Committed to process automation solutions

# **Datasheet**



**EC8.0** 



#### บริษัท แฟ็คโต คอมโพเนนส์ จำกัด



The EC8.0 is used in industrial measuring of the temperature, conductivity, Resistivity, salinity and total dissolved solids, such as waste-water treatment, environmental monitoring, pure water, sea farming, food production process, etc. The instrument can be panel, wall or pipe mounted. The instrument provides two current outputs. The maximum load is 500  $\Omega$ . The instrument provides 3 relays. It can pass though a maximum of 5A/250VAC or 5A/30VDC.

#### **Characteristics**

- Easy operation
- NEMA enclosure for field mounting and panel mounting
- Automatically Temperature Compensation
- Directly switchable to EC or TDS
- Large LC D display with background lighting

- EC or TDS sensors can be connected thanks to
- the sensor supply integrated in the output
- Using the setup program: user-friendly programming
- Data logging capacity
- 4-20mA analog output
- RS485 communication

#### **Parameter**

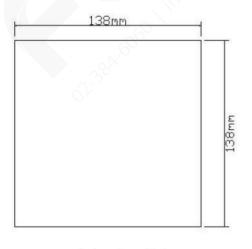
| Functions                 | EC TDS                 |         |  |  |  |
|---------------------------|------------------------|---------|--|--|--|
| Measuring range           | 0.00uS-2000mS          |         |  |  |  |
| Resolution                | 0.01/0.1/1             | 1       |  |  |  |
| Accuracy                  | ±1%F.S.                | ±1%F.S. |  |  |  |
| Temp. compensation        | Pt 1000/NTC30K         |         |  |  |  |
| Temp. range               | -10.0 to +130.0℃       |         |  |  |  |
| Temp. compensation range  | -10.0 to +130.0℃       |         |  |  |  |
| Temp. resolution          | 0.1℃                   |         |  |  |  |
| Temp. accuracy            | ±0.2℃                  |         |  |  |  |
| Cell constant             | 0.001 to 20.000        |         |  |  |  |
| Ambient temperature range | 0 to +70℃              |         |  |  |  |
| Storage temp.             | -20 to +70℃            |         |  |  |  |
| Display                   | Back light, dot matrix |         |  |  |  |

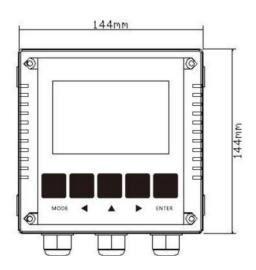


| EC current output1              | Isolated, 4 to 20mA output , max. load 500Ω     |  |  |
|---------------------------------|---|--|--|
| Temp. current output 2          | Isolated, 4 to 20mA output , max. load 500Ω     |  |  |
| Current output accuracy         | ±0.05 mA  |  |  |
| RS485                           | Mod bus RTU protocol                            |  |  |
| Baud rate                       | 9600/19200/38400                                |  |  |
| Maximum relay contacts capacity | 5A/250VAC,5A/30VDC                              |  |  |
| Cleaning setting                | ON: 1 to 1000 seconds, OFF: 0.1 to 1000.0 hours |  |  |
| One multi-function relay        | clean/period alarm/error alarm                  |  |  |
| Relay delay                     | 0-120 seconds                                   |  |  |
| Data logging capacity           | 500,000   |  |  |
| Language selection              | English/traditional Chinese/simplified Chinese  |  |  |
| Waterproof grade                | IP65  |  |  |
| Power supply                    | From 90 to 260 VAC, power consumption < 7 Watts |  |  |
| Installation                    | panel/wall/pipe installation                    |  |  |
| Weight                          | 144 series:0.85Kg                               |  |  |

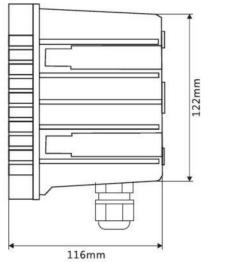
## **Dimension**

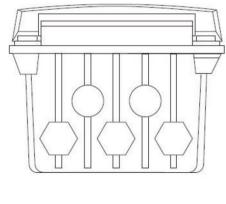
144 series: The instrument can be panel, wall or pipe mounted installation. Panel Installation: Make a 138x138 mm square cutout and insert the instrument. Screw in the fixed block with the screws and fixed bar.

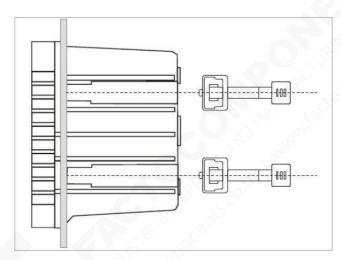






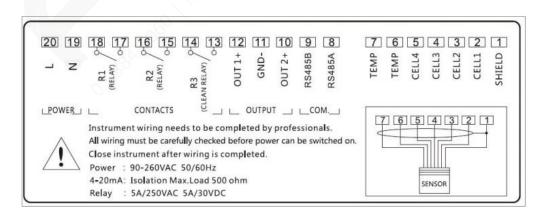






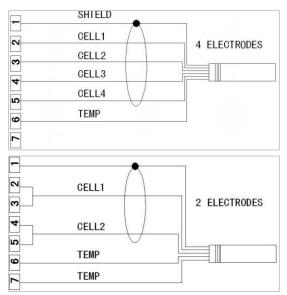
installation figure

### Wiring



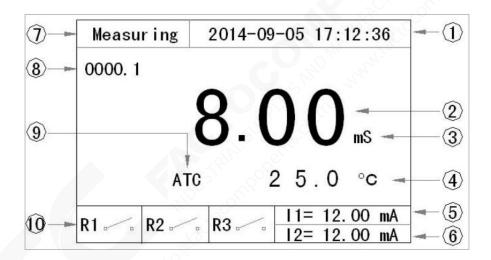
**Connection label** 





**Electrode connection figure** 

### **Display**



- 1. Date and time
- 2. Main display
- 3. Unit
- 4. Temperature and unit
- 5. First current output
- 6. Second current output
- 7. Measurement status and Error indicator, there is no display if meter is in keeping mode
- 8. Count down timer: cycle time/clean time, it also displays the "delay" when relay3 has a delay enabled.
- 9. Temp. compensation: auto(ATC) or manual(MTC)
- 10. Relay indicator

Note: If the EC readings are over the range, it will display 99.99/999.9/9999 If the temperature readings are under or over the range, it will display -99.9/999.9.



## **Ordering Code**

|                  | 1  |       | Condu | ctivity | meter   |                          |                          |
|------------------|----|-------|-------|---------|---|--------------------------|--------------------------|
| SUP-EC8.0        |    | Model |       |         |   |                          | Description              |
| Range            | R1 |       |       |         |   |                          | 0-20000µS/cm             |
| Cell constant    | K1 |       |       |         |   | K=0.01 0.02 ~ 20.00µS/cm |                          |
|                  |    | K2    |       |         |   |                          | K=0.1 0.20 ~ 200.0μS/cm  |
|                  |    | K3    |       |         |   |                          | K=1.0 2.00 ~ 2000µS/cm   |
|                  |    | K4    |       |         |   |                          | K=10.0 0.02 ~ 20.00mS/cm |
| Cable Length     |    |       | L1    |         |   |                          | 5M                       |
|                  |    |       | L2    |         |   |                          | 10M                      |
|                  |    |       | L3    |         |   |                          | 15M                      |
|                  |    | L4    |       |         |   | 20M                      |                          |
|                  |    |       | L5    |         |   |                          | Other Length             |
| Signal Output S1 |    |       |       |         | 4-20ma RS485                                    |                          |                          |
| Relay            |    |       | A1    |         | Two (high and low)                              |                          |                          |
| Power supply     |    |       |       | V1      | From 90 to 260 VAC, power consumption < 7 Watts |                          |                          |