

# Conductivity

## 27 EC-502

## Conductivity Monitor

Excellent chemical-resistant type, Carbon EC Electrode.



### Features

- Measurement of SI unit and old unit shifting is possible  
SI unit (mS/m, S/m) and old unit (mS/cm) can be shifted and measured.
- Possible to set and change cell constant as you need.
- The electrode of screw and cap nut fixing  
The flow type measuring tank for process piping is also prepared.

### Technical Information

#### Conductivity unit converting table

If you divide old conductivity unit ( $\mu\text{S}/\text{cm}$ ) by 10, it becomes new unit (SI unit) of conductivity unit (mS/m).  
Because of unit change, cell constant ( $\theta$ ) changes.  
Cell constant ( $\theta$ ) is equal to new unit (SI unit) cell constant ( $\text{m}^{-1}$ ), if you multiply old unit ( $\text{cm}^{-1}$ ) by 100.

### Conductivity

Old unit ( $\mu\text{S}/\text{cm}$ )	New unit (SI unit) mS/m
0.1	0.01
0.5	0.05
1	0.1
5	0.5
10	1
50	5
100	10
500	50
1000	100

Remarks :  $\mu$  means  $10^{-6}$ , m means  $10^{-3}$   
Example :  $1000\mu\text{S}/\text{cm}=1\text{mS}/\text{cm}=0.001\text{S}/\text{cm}$   
 $1\mu\text{S}/\text{cm}=100\mu\text{S}/\text{m}=0.1\text{mS}/\text{cm}$

### Meter

Product Name	Conductivity Monitor (for Middle/High Density)	Conductivity Monitor (for Low/Middle Density)
Model	EC-502(H)	EC-502(L)
Display	LED red 2-row Upper:EC Value Lower:Water Temp (only display)	
Measuring Range	SI unit 0~20S/m Old unit (0~200mS/cm) Temp 0~100°C (only display)	0~2000mS/m (0~20mS/cm)
Display Range	SI unit ①0.000~0.200S/m ②0.000~2.000S/m ③0.000~20.00S/m Old unit ①0.000~2000mS/cm ②0.00~20.00mS/cm ③0.0~200.0mS/cm	①0.00~20.00mS/m ②0.00~200.0mS/m ③0.00~2000mS/m ①0.000~0.200mS/cm ②0.000~2.000mS/cm ③0.000~20.00mS/cm
Repeatability	within 0.5% (F.S.)	
Transmit output	DC4~20mA 3 range switchng	
Contact Output	High/Low Limit each a,b contact point (No voltage)	
Power supply	AC85~240V 50/60Hz	
Standard component	Meter body, EC Electrode, Panel fixing tool	

### EC Detector

Model	ECD-4CY	ECD-1CY
Cell constant	400 $\text{m}^{-1}$ (Old unit:4 $\text{cm}^{-1}$ )	100 $\text{m}^{-1}$ (Old unit:1 $\text{cm}^{-1}$ )
Principle	AC 2 Electrode System, Carbon Electrode	
Sample Temperature	0~80°C	
Material	PPS, Carbon, FKM, PP	
Installation	Screw-in type, Flow type, Throw-in type	
Cable Length	5m Standard	