

## SPECIFICATIONS:



<b>RANGE</b>	
<b>SMS315</b>	0.00 to 9.99 mS/cm
<b>SMS415</b>	0 to 1990 mg/L (ppm)
<b>RESOLUTION</b>	
<b>SMS315</b>	0.01 mS/cm
<b>SMS415</b>	10 mg/L (ppm)
<b>ACCURACY (@25°C)</b>	±2% Full Scale
<b>CONVERSION FACTOR</b>	approx. 0.7 ( <b>SMS415</b> only)
<b>TEMPERATURE COMPENSATION</b>	Automatic, from 5 to 50°C with $\beta=2\%/^{\circ}\text{C}$
<b>ENVIRONMENT</b>	0 to 50°C; 95% RH max.
<b>PROBE</b>	
<b>SMS315</b>	<b>MA815/2 (included)</b>
<b>SMS415</b>	<b>MA816/2 (included)</b>
<b>POWER SUPPLY</b>	external, 12VDC power adapter ( <b>included</b> )
<b>DIMENSIONS</b>	85 x 104 x 39 mm
<b>WEIGHT</b>	130 g (meter only)

## OPTIONAL ACCESSORIES:

<b>M10031B</b>	1413 $\mu\text{S}/\text{cm}$ calibration solution, 20mL sachet (25 pcs)
<b>M10442B</b>	1500 ppm cal. solution, 20mL sachet (25 pcs)
<b>M100020B</b>	Cal-Test solution for SMS315, 20mL sachet (25 pcs)
<b>M100040B</b>	Cal-Test solution for SMS415, 20mL sachet (25 pcs)
<b>MA815/2 (*)</b>	Conductivity probe for SMS315, with 2m cable
<b>MA816/2 (*)</b>	Conductivity probe for SMS415, with 2m cable

(\*) To be replaced by technical personnel only.

## WARRANTY:

These instruments are warranted from all defects in materials and manufacturing for a period of **two years** from the date of purchase. The probes are warranted for a period of **6 months**.

If during this period, the repair or replacement of parts is required, where the damage is not due to negligence or erroneous operation by the user, please return the parts to either dealer or our office and the repair will be effected free of charge.

**Note:** We reserve the right to modify the design, construction and appearance of our products without advance notice.

15MIL315R1 11/02



## USER MANUAL

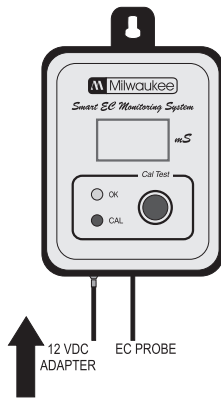
### CONDUCTIVITY & TDS METERS WITH CAL-TEST MODELS: **SMS315** & **SMS415**

*Smart Monitoring System*

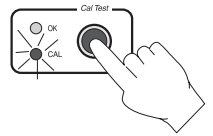


### OPERATION:

- Connect the supplied 12VDC power adapter to the meter and to the mains line.
- Immerse the tip (4 cm) of the conductivity probe into the sample.
- Wait for thermal equilibrium to be reached and the meter will start continuous monitoring.



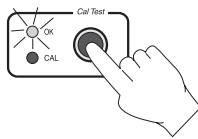
- If the GREEN LED lights up, the meter does not need calibration.
- If the red LED lights up, calibrate the meter.



### CALIBRATION TEST:

These meters are provided with a check system, which allows to verify the calibration status in a fast and easy way. It is recommended to perform the below operations once a month.

- Rinse thoroughly the probe with water.
- Immerse the probe in the suitable "Cal-Test" solution, **M100020** for **SMS315** and **M100040** for **SMS415**.
- Wait for one minute and then push the "Cal-Test" button on the meter front.
- If the GREEN LED lights up, the meter is calibrated.
- If the RED LED lights up, clean the probe, immerse it in the "Cal-Test" solution and push again the button.



### CALIBRATION PROCEDURE:

- Clean the probe with alcohol and let it dry (if a more thorough cleaning is required, brush the metal pins with fine sandpaper and then rinse with water).
- Open a sachet of suitable conductivity calibration solution and immerse the probe, making sure the metal pins are completely submerged.  
Use **M10031** (1413  $\mu\text{S}/\text{cm}$ ) for **SMS315** and **M10442** (1500 ppm) for **SMS415**.  
These calibration solutions are recommended for applications in agriculture and hydroponics.
- Wait until the reading stabilize for temperature variations, and then adjust the CAL trimmer on the meter side with the supplied screwdriver until the display shows: "1.41" mS/cm for **SMS315** and "1500" ppm for **SMS415**.



- The calibration is now complete and the meter is ready to take measurements.

If calibration can not be reached, the probe has to be replaced. Contact your dealer for technical service.