

Milwaukee
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Authorized Dealer:



SMS310 Smart Conductivity Monitor

The **SMS310** is a reliable conductivity monitor with automatic temperature compensation and 1 point manual calibration, powered by a 12 VDC adapter.

The **SMS310** is ideal for the hydroponic market and allows you to continuously monitor EC value directly in your reservoir.

Other features include: user selectable set point, visual LED alarm when values go below the set point.

SMS310	
Range	0.0 to 10.0 mS/cm
Resolution	0.1 mS/cm
Accuracy (@25°C)	±2% full scale
Set point	1.5 to 3.5 mS/cm
Alarm	active when the measure is lower than the set point
Temp. Compensation	automatic, from 5 to 50°C
Probe	MA811/2 (included)
Environment	0 to 50°C; max RH 95%
Power supply	12 VDC (included)



SMS410 Smart TDS Monitor

The **SMS410** is a reliable TDS monitor with automatic temperature compensation and 1 point manual calibration, powered by a 12 VDC adapter.

The **SMS410** is ideal for the hydroponic market and allows you to continuously monitor TDS value directly in your reservoir.

Other features include: user selectable set point, visual LED alarm when values go below the set point.

SMS410	
Range	0 to 1990 ppm
Resolution	10 ppm
Accuracy (@25°C)	±2% full scale
Set point	700 to 1900 ppm
Alarm	active when the measure is lower than the set point
Temp. Compensation	automatic, from 5 to 50°C
Probe	MA812/2 (included) Environment
Environment	0 to 50°C; max RH 95%
Power supply	12 VDC (included)

SMS315/SMS415 Smart Conductivity & TDS Monitors with Cal-test button

The **SMS315** is a reliable conductivity monitor with automatic temperature compensation and 1 point manual calibration powered by a 12 VDC adapter.

The **SMS315** and **SMS415** allows you to continuously monitor EC and TDS values directly in your reservoir.

The **Cal-test feature** will warn the user (through an LED) when the probe needs to be calibrated again!



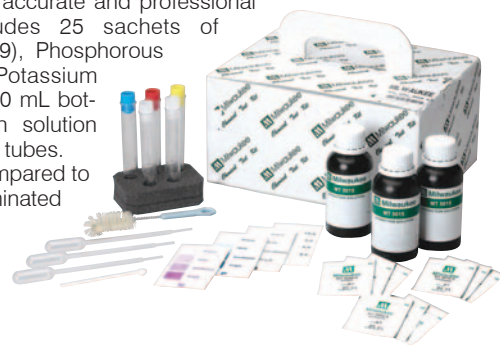
	SMS315	SMS415
Range	0.00 to 9.99 mS/cm	0 to 1990 mg/L (ppm)
Resolution	0.01 mS/cm	10 mg/L (ppm)
Accuracy (@25°C)	±2% full scale	±2% full scale
Temperature Compensation	automatic, from 5 to 50°C	
Probe	MA815/2 (included)	MA816/2 (included)
Environment	0 to 50°C; max RH 95%	0 to 50°C; max RH 95%
Power supply	12 VDC (included)	12 VDC (included)

MT6003 NPK Soil Test Kit

The primary nutrients essential to plant growth and quality of your plants are **Nitrogen**, **Phosphorous** and **Potassium**.

The **Nitrogen** is associated with plant growth above the ground, the **Phosphorous** is responsible for flower and fruit production as well as overall plant health. The **Potassium** promotes disease resistance, water intake and strong root growth.

This kit provides accurate and professional tests and includes 25 sachets of Nitrogen (MT5009), Phosphorous (MT5010) and Potassium (MT5002), 3 x 100 mL bottles of extraction solution and 5 plastic test tubes. All results are compared to standards on laminated colour charts.



SMS122 Smart pH/CO₂ Controller

The **SMS122** is a Smart pH controller with a selectable set point from 5.5 to 9.5 pH.

The **SMS122** has a visual Led alarm when values go above the selected set point.

The **SMS122** pH controller enables you to automate your acid feeding requirements by connecting your pump to the plug socket supplied with the meter.

The meter is also supplied with calibration solution and a 12 VDC adapter.

SMS122	
Range	0.0 to 14.0 pH
Resolution	0.1 pH
Accuracy (@25°C)	±0.2 pH
Set point range	5.5 to 9.5 pH
Alarm	active when reading is higher than set point
Dosing contact	1 power plug for acid feeding
pH electrode	MA911B/2 (included)
Environment	0 to 50°C; max RH 95%
Power supply	12 VDC (included)

Mi404 Free and Total Chlorine Photometer

The Milwaukee **Mi404** photometer ensures excellent repeatability and measures: free & total chlorine.

This user-friendly photometer will give you direct readings in mg/L.

The **Mi404** is a portable micro-processor-based instrument to measure free & total chlorine (with a range of 0.00 to 5.00 mg/L) which has a great resolution, accuracy and gives immediate results.

Each photometer is supplied in a hard carrying case, complete with reagents for 100 tests (**Mi504-100**).

Mi404	Free & total chlorine
Range	0.00 to 5.00 mg/L Cl ₂
Resolution	0.01 mg/L (0.00 to 3.50 mg/L); 0.10 mg/L (above 3.50 mg/L)
Accuracy	±0.04 mg/L @1.50 mg/L
Light source	tungsten lamp
Environment	0 to 50°C / 32 to 122°F; max RH 95%
Battery type	1 x 9V (included)
Auto-off	after 10 minutes of non use

MR32ATC Refractometer

The **MR32ATC** refractometer is an instrument required to monitor the quality of the product before and after the picking. An high value of brix degree means an high sugar concentration and a great content of proteins and minerals. Each refractometer has automatic temperature compensation. The refractometer is supplied in a hard protective carrying case, and includes calibration screwdriver, pipette and user manual.

	Range	Resolution	Accuracy
MR32ATC	0-32% Brix	0.1%	±0.2%

Electrodes and Probes

Milwaukee has a wide range of pH, Conductivity and temperature electrodes & probes to meet the need of any hydroponics application. Milwaukee also offers a wide range of calibration, maintenance & cleaning solutions, necessary for the correct use of your electrodes and probes. Milwaukee standard solutions are available in 230 mL bottles or 20 mL sachets.

Electrodes, probes & solutions	
MA811/2	Conductivity/TDS probe with 2 m cable (SMS310)
MA812D/1	Conductivity/TDS probe with DIN connector and 1 m cable (SM302)
MA815/2	Conductivity/TDS probe with 2 m cable (SMS315)
MA830R	Stainless steel temperature probe (SM102)
MA850	pH/EC/TDS spare combination probe with 1 m cable (SM802)
MA851D/1	pH/Conductivity/TDS/Temperature amplified probe with DIN connector and 1 m cable (Mi805)
MA911B/1	Double junction, gel filled pH electrode with BNC connector and 1 m cable (SM100)
MA911B/2	Double junction, gel filled pH electrode with BNC connector and 2 m cable (SMS110 e SMS122)
MA912B/2	pH electrode with BNC connector and 2 m cable (SMS115)
MA918B/1	Combined glass-body, refillable, triple junction pH electrode with BNC connector and 1 m cable (SM102)
MA73047	Replaceable pH electrode (pH52)
MA73076	Replaceable Conductivity/TDS probe (C66)
MA73076-S	Replaceable Conductivity/TDS long probe (C66-S)
MA73600	Replaceable pH electrode (pH51)
MA73600-S	Replaceable pH long electrode (pH51-S)
MA9004	pH 4.01 buffer solution (230 mL)
MA9007	pH 7.01 buffer solution (230 mL)
MA9015	Storage solution for pH/ORP electrodes (230 mL)
MA9016	Cleaning solution for pH/ORP electrodes (230 mL)
MA9061	1.413 µS/cm conductivity calibration solution (230 mL)
M10000B	Rinse solution - Deionized water (box of 25 x 20 mL sachet)
M10004B	pH 4.01 buffer solution (box of 25 x 20 mL sachet)
M10007B	pH 7.01 buffer solution (box of 25 x 20 mL sachet)
M10010B	pH 10.01 buffer solution (box of 25 x 20 mL sachet)
M10031B	1.413 µS/cm conductivity calibration solution (box of 25 x 20 mL sachet)



Wide Range of
Instruments for Professional
Horticulture & Hydroponics

Milwaukee

pH51/pH52 Waterproof pH & Temp. Testers with replaceable electrode

The **pH51** is a waterproof pH tester with 2 points manual calibration, ± 0.1 pH accuracy and a range of 0.0 to 14.0 pH.

The **pH52** is a waterproof pH and temperature tester with 2 points automatic calibration, a range of -2.0 to 16.0 pH and of -5.0 to 60.0°C and ± 0.1 pH accuracy. The modular design of these testers allows easy electrode and battery replacement. The instruments are supplied in a casing complete with calibration solution.

	pH51	pH52
Range	0.0 to 14.0 pH	-2.0 to 16.0 pH -5.0 to 60.0°C / 23.0 to 140.0°F
Resolution	0.1 pH	0.1 pH 0.1°C / 0.1°F
Accuracy	± 0.1 pH	± 0.1 pH $\pm 1^\circ\text{C}$ / $\pm 2^\circ\text{F}$
Calibration	manual, 2 points	automatic, 1 or 2 points
Temp. compensation		automatic
pH electrode	MA73600 (replaceable)	MA73047 (replaceable)
Environment	0 to 50°C / 32 to 122°F max RH 95%	-5 to 60°C / 23 to 140°F max RH 95%
Battery type	3 x 1.5V (included)	3 x 1.5V (included)
Battery life	approx. 1500 hours of use	approx. 200 hours of use

pH51-S Waterproof pH & Temperature Tester with 30 cm long electrode

The **pH51-S** is an ideal tester for use in nutrient mixing tanks. The 30 cm stick type rugged pH electrode is designed for mixing solutions and measuring pH directly in your tank.

Its IP67 Waterproof casing and replaceable probe make it suitable also for heavy duty applications, such as Wastewater treatment and Agriculture.

The modular design allows easy electrode and battery replacement. Manual calibration prolongs the battery life up to 1500 hours.

The **pH51-S** has a range of 0.0 to 14.0 pH and 0.1 pH resolution.

pH51-S	
Range	pH 0.0 to 14.0 pH
Resolution	pH 0.1 pH
Accuracy	pH ± 0.1 pH
Calibration	manual, 2 points
pH electrode	MA73600-S (replaceable)
Environment	0 to 50°C / 32 to 122°F; max RH 95%
Battery type	3 x 1.5V (included)
Battery life	approx. 1500 hours of use

C66/T75 Waterproof Conductivity & TDS Testers with replaceable probe

The **C66** is a conductivity IP67 waterproof tester, specifically designed for the hydroponics and Agricultural markets, with automatic temperature compensation and 1 point manual calibration. The tester has a range of 0.00 to 10.00 mS/cm. The **C66** has a replaceable electrode and is supplied in a casing with calibration solution sachets (M10031) and screwdriver for calibration. The modular design allows easy electrode and battery replacement.

T75: waterproof TDS tester with range of 0 to 1999 ppm is also available.

	C66	T75
Range	0.00 to 10.00 mS/cm	0 to 1999 ppm (mg/L)
Resolution	0.01 mS/cm	1 ppm (mg/L)
Accuracy	$\pm 2\%$ full scale	$\pm 2\%$ full scale
Temperature Compensation	automatic from 5 to 50°C / 41 to 122°F, with $\beta=2\%/^\circ\text{C}$	automatic from 5 to 50°C / 41 to 122°F, with $\beta=2\%/^\circ\text{C}$
Calibration	manual, 1 point through trimmer	manual, 1 point
Probe	MA73076 (replaceable)	MA73075 (replaceable)
Environment	0 to 50°C / 32 to 122°F; max RH 95%	0 to 50°C / 32 to 122°F; max RH 95%
Battery type	3 x 1.5V (included)	3 x 1.5V (included)
Battery life	approx. 250 hours of use	approx. 250 hours of use

C66-S Waterproof Conductivity Tester with 30 cm long probe

The **C66-S** is an ideal tester for use in nutrient mixing tanks. The 30 cm stick type rugged conductivity probe is designed for mixing solutions and measuring nutrient directly in your tank.

Its IP67 Waterproof casing and replaceable probe make it suitable also for heavy duty applications, such as Wastewater treatment and Agriculture.

The modular design allows easy electrode and battery replacement.

The **C66-S** is a conductivity high range tester with a range of 0.00 to 10.00 mS/cm.

C66-S	
Range	0.00 to 10.00 mS/cm
Resolution	0.01 mS/cm
Accuracy	$\pm 2\%$ full scale
Temp. comp.	automatic from 5 to 50°C / 41 to 122°F, with $\beta=2\%/^\circ\text{C}$
Calibration	manual, 1 point through trimmer
Probe	MA73076-S (replaceable)
Environment	0 to 50°C / 32 to 122°F; max RH 95%
Battery type / life	3 x 1.5V (included), approx. 250 hours of use

SM100 Portable pH Meter

This **SM100** pH meter, with 2 points manual calibration, provides instant readings of one of the most important factors in efficient plant production: soil and well water pH. Soil and well water pH that is too acid or alkaline can have an adverse effect on plant nutrient and water uptake and directly effect the efficiency of fertilizer, herbicides and pesticides. The **SM100** is supplied complete with MA911B/1 pH electrode, calibration solution and 9V battery.

SM102 Portable pH/Temperature Meter

The **SM102** is a microprocessor based pH/temp meter with extended range (-2.00 to 16.00 pH and -5 to 70°C), ± 0.01 pH accuracy, automatic calibration in 2 points and automatic temperature compensation and is ideal for soil measurements.

	SM100	SM102
Range	pH/Temp 0.0 to 14.0 pH	-2.00 to 16.00 pH / -5 to 70°C
Resolution	pH/Temp 0.1 pH	0.01 pH / 0.1°C
Accuracy	pH/Temp ± 0.2 pH	± 0.01 pH / $\pm 0.5^\circ\text{C}$
Temp. compensation		automatic, 0 to 70°C
Calibration	manual, 2 points	automatic, 1 or 2 points
pH electrode	MA911B/1 (included)	MA918B/1 (included)
Temperature probe		MA830R (included)
Environment	0 to 50°C; max RH 95%	0 to 50°C; max RH 95%
Battery type / life	1 x 9V (included), 300 hours	1 x 9V (included), 750 hours
Auto-off	after 8 minutes of non-use	after 8 minutes of non-use

SM302 Portable Conductivity Meter

The **SM302** is a portable conductivity meter with automatic temperature compensation. Soil and water conductivity is checked before fertilizer application to pinpoint field needs and after fertilization to establish its effectiveness.

SM302	
Range	0.0 to 10.0 mS/cm
Resolution	0.1 mS/cm
Accuracy	$\pm 2\%$ full scale
Calibration solutions	1413 $\mu\text{S/cm}$ (M10031B)
Conductivity probe	MA812D/1 (included)
Temp. compensation	automatic, 0 to 50°C
Environment	0 to 50°C; max RH 95%
Battery type	1 x 9V (included)
Battery life	approx. 300 hours of use

The EC testing provides all agricultural operation with a method to optimize chemical applications and minimize operational cost. The **SM302** is supplied complete with MA812D/1 Conductivity probe, calibration solution and 9V battery.

SM710 Professional Kit for pH and Conductivity measurements

The **SM710** is a professional kit for pH and Conductivity measurements which includes the following portable instruments:

- **SM100** which performs pH measurements (0.0 to 14.0 pH)
- **SM302** which performs Conductivity measurements (0.0 to 10.0 mS/cm).

The meters are supplied in a rugged carrying case complete with a pH electrode, Conductivity probe, calibration solutions and 2 x 9V batteries.

The **SM100** pH meter, with 2 points manual calibration, provides instant readings of one of the most important factors in efficient plant production: soil and well water pH.

The **SM302** is a portable conductivity meter with automatic temperature compensation. Conductivity measurement allow you to monitor Total Dissolved Solids values in your reservoir.

SM802 pH/Conductivity/TDS Portable Meter

The **SM802** is a multi-parameter portable instrument that tests 3 of the most important parameters in hydroponics: pH/EC/TDS. Accuracy is ensured with ATC.

Soil and well water pH that is too acid or alkaline can have an adverse effect on plant nutrient and water uptake and directly effect the efficiency of fertilizer, herbicides and pesticides. Soil conductivity is checked before fertilizer application to pinpoint field needs and after fertilization to establish its effectiveness.

SM802		
Range	pH	0.00 to 14.00 pH
	EC/TDS	0.00 to 6.00 mS/cm; 0 to 4000 ppm
Resolution	pH	0.10 pH
	EC/TDS	0.01 mS/cm; 10 ppm
Accuracy	pH	± 0.20 pH
(@20°C)	EC/TDS	$\pm 2\%$ full scale
Conversion factor		0.5
Calibration		manual, 1 point
Temperature compensation		automatic, 0 to 50°C / 32 to 122°F
Probe		MA850, combination pH/EC/TDS probe (included)
Environment		0 to 50°C; max RH 95%
Battery type / life		1 x 9V (included), approx. 150 hours of use

Mi805 Portable pH/EC/TDS/ Temperature Meter

The **Mi805** is a professional portable meter which measures the 4 most important parameters in the growing environment: pH, Conductivity, TDS and Temperature. Accuracy is ensured with the automatic temperature compensation feature. Other features include: adjustable TDS factors from 0.45 to 1.00, and a range of temperature coefficients (β) from 0.0 to 2.4% for greater consistency and reproducibility.

The meter is supplied in a hard carrying case including battery and calibration solutions.

Mi805		
Range	pH/EC/TDS	0.00 to 14.00 pH / 0 to 3999 $\mu\text{S/cm}$ / 0 to 1999 ppm
	Temp	0.0 to 60.0°C / 32.0 to 140.0°F
Resolution	pH/EC/TDS	0.01 pH / 1 $\mu\text{S/cm}$ / 1 ppm
	Temp	0.1°C / 0.1°F
Accuracy	pH/EC/TDS	± 0.01 pH / $\pm 2\%$ full scale / $\pm 2\%$ full scale
(@25°C)	Temp	$\pm 0.5^\circ\text{C}$ / $\pm 1^\circ\text{F}$
Temp. compensation		automatic, from 0 to 60°C; with β adj. from 0.0 to 2.4%/°C
pH / EC Calibration		automatic, 1 or 2 points / automatic, 1 point
Probe		MA851D/1, amplified pH/EC/TDS/Temp probe (included)
Environment		0 to 50°C / 32 to 122°F; max RH 100%
Battery type / life		1 x 9V (included), approx. 300 hours of use
Auto-off		after 8 minutes of non-use

SM700 Portable Lux Meter

The **SM700** is provided with a light sensor connected to the meter through a coaxial cable, allowing easy measurements without any interference. By simply pressing the RANGE key, it is possible to switch among 3 ranges and choose the best resolution according to the environment to be tested.

The **SM700** lux meter has a rugged and water-resistant body for outdoor use without any problems. The 9V battery and automatic shut-off feature guarantee about 70 hours of operation. Lux is a unit that indicates the density of light that falls on a surface. The meter measures in Lux. To convert the reading in foot candles multiply the reading on the display by 92.9. The meter is supplied complete with light sensor and 9V battery.

SM700	
Range	0-1999 Lux; 2000-19999 Lux; 20000-50000 Lux
Resolution	1 Lux; 10 Lux; 100 Lux
Accuracy	$\pm 6\%$ full scale
Environment	0 to 50°C / 32 to 122°F; max RH 95%
Battery type	1 x 9V (included)
Battery life	approx. 70 hours of continuous use
Auto-off	after 10 minutes of non-use

SMS110 Smart pH Monitor

The **SMS110** smart pH monitor allows you to continuously monitor pH values directly in your reservoir.

Features include: user selectable set point, visual Led alarm when values go above the set point and manual calibration.

Powered by a 12 VDC adapter all smart monitors are supplied with a clog-resistant pH electrode.

SMS110	
Range	0.0 to 14.0 pH
Resolution	0.1 pH
Accuracy	± 0.2 pH
(@25°C)	
Set point	3.5 to 7.5 pH
Alarm	active when measure is higher than selected set point
pH electrode	MA911B/2 (included)
Environment	0 to 50°C; max RH 95%
Power supply	12 VDC (included)

SMS115 Smart pH Monitor Cal-test button

The **SMS115** smart pH monitor allows you to continuously monitor pH values directly in your reservoir.

Features include: manual calibration and **Cal-test** function. The Cal-test button will warn the user when the electrode needs to be calibrated again.

Powered by a 12 VDC adapter all smart monitors are supplied with a clog-resistant pH electrode.

SMS115	
Range	0.0 to 14.0 pH
Resolution	0.1 pH
Accuracy	± 0.2 pH
(@25°C)	
Calibration	manual, 2 points through trimmer on the meter side
pH electrode	MA912B/2 (included)
Environment	0 to 50°C; max RH 95%
Power supply	12 VDC (included)

