



VWR® sympHony® ELECTROCHEMISTRY

Simplicity

Accuracy

Configurability





VWR® sympHony® ELECTROCHEMISTRY

A Complete line of meters, electrodes, chemistries and accessories for all your testing and measurement needs.

CONTENTS

Benchtop Meters	3
Handheld Meters	4
Packages	5-9
Kits	10
Electrodes	11-16
Buffers and Solutions	17
Accessories	18
Dimensions	19
Package Selection Guide	20

Specially designed for use in the lab, these benchtop meters are versatile enough to fit your unique testing needs. These meters are simple to operate and offer an intuitive user interface allowing for easy set up and use, from day one. Step-by-step on screen prompts enable both new and seasoned users to operate the meter easily and effectively resulting in consistently accurate measurements. Each benchtop meter can be configured to fit your needs with the variety of electrodes, chemistry and accessories available.

Description	Cat. No.
B10P	89231-662
B10C	89231-676
B20PI	89231-692
B30PCI	89231-696
B40PCID	89231-684



	Specifications	B10P	B10C	B20PI	B30PCI	B40PCID
pH	Range	-2 to 19		-2 to 19	-2 to 19	-2 to 19
	Resolution	0.1/0.01/0.001		0.1/0.01/0.001	0.1/0.01/0.001	0.1/0.01/0.001
	Relative Accuracy	≤ 0.002 pH (± 1 digit)		≤ 0.002 pH (± 1 digit)	≤ 0.002 pH (± 1 digit)	≤ 0.002 pH (± 1 digit)
	Reproducibility	± 0.001 pH (± 1 digit)		± 0.001 pH (± 1 digit)	± 0.001 pH (± 1 digit)	± 0.001 pH (± 1 digit)
	Calibration	Up to 5 points		Up to 5 points	Up to 5 points	Up to 5 points
mV (ORP/ Redox)	Range	± 2000 mV		± 2000 mV	± 2000 mV	± 2000 mV
	Resolution	Selectable 0.1/1mV		Selectable 0.1/1mV	Selectable 0.1/1mV	Selectable 0.1/1mV
	Relative Accuracy	≤ 0.2 mV (± 1 digit)		≤ 0.2 mV (± 1 digit)	≤ 0.2 mV (± 1 digit)	≤ 0.2 mV (± 1 digit)
	Reproducibility	± 0.1 mV (± 1 digit)		± 0.1 mV (± 1 digit)	± 0.1 mV (± 1 digit)	± 0.1 mV (± 1 digit)
Temperature	Range	-20 to 150°C (-4 to 302°F)	-20 to 150°C (-4 to 302°F)	-20 to 150°C (-4 to 302°F)	-20 to 150°C (-4 to 302°F)	-20 to 150°C (-4 to 302°F)
	Resolution	0.1°C	0.1°C	0.1°C	0.1°C	0.1°C
	Relative Accuracy	≤ 0.2°C (± 1 digit)	≤ 0.2°C (± 1 digit)	≤ 0.2°C (± 1 digit)	≤ 0.2°C (± 1 digit)	≤ 0.2°C (± 1 digit)
ISE	Range			10 ⁻⁵ to 10 ⁻¹ mol/L	10 ⁻⁵ to 10 ⁻¹ mol/L	10 ⁻⁵ to 10 ⁻¹ mol/L
	Calibration			2 to 5 programmable standards	2 to 5 programmable standards	2 to 5 programmable standards
Conductivity	Range		0.001 µS/cm to 0.001 1000 mS/cm		0.001 µS/cm to 0.001 1000 mS/cm	0.001 µS/cm to 0.001 1000 mS/cm
	Relative Accuracy		≤ 0.5 % m.v. (± 1 digit)		≤ 0.5 % m.v. (± 1 digit)	≤ 0.5 % m.v. (± 1 digit)
	Reproducibility		± 0.1% (± 1 digit)		± 0.1% (± 1 digit)	± 0.1% (± 1 digit)
	Reference Temperature		20°, 25°, or any temp between 0° and 99°C		20°, 25°, or any temp between 0° and 99°C	20°, 25°, or any temp between 0° and 99°C
Resistivity	Range		0.0001 to 100MΩ		0.0001 to 100MΩ	0.0001 to 100MΩ
	Relative Accuracy		≤ 0.5 % m.v. (± 1 digit)		≤ 0.5 % m.v. (± 1 digit)	≤ 0.5 % m.v. (± 1 digit)
	Reproducibility		± 0.1% (± 1 digit)		± 0.1% (± 1 digit)	± 0.1% (± 1 digit)
Salinity	Range		5.85 mg/L to 311.1 g/L		5.85 mg/L to 311.1 g/L	5.85 mg/L to 311.1 g/L
	Relative Accuracy		≤ 0.5 % m.v. (± 1 digit)		≤ 0.5 % m.v. (± 1 digit)	≤ 0.5 % m.v. (± 1 digit)
	Reproducibility		± 0.1% (± 1 digit)		± 0.1% (± 1 digit)	± 0.1% (± 1 digit)
TDS	Range		0 mg/L to 4444.4 g/L		0 mg/L to 4444.4 g/L	0 mg/L to 4444.4 g/L
	Relative Accuracy		≤ 0.5 % m.v. (± 1 digit)		≤ 0.5 % m.v. (± 1 digit)	≤ 0.5 % m.v. (± 1 digit)
	Reproducibility		± 0.1% (± 1 digit)		± 0.1% (± 1 digit)	± 0.1% (± 1 digit)
DO	Range					0.00 to 60.0 mg/L
	Relative Accuracy					≤ 0.5 % m.v. (± 1 digit)
	Reproducibility					± 0.2% (± 1 digit)
	Barometric Pressure					450-850 mm Hg

HANDHELD METERS

Designed for use in the lab and environmental field applications, these portable meters are versatile enough to fit your unique testing needs. An easy-to-use user interface allows for simple set up and use, from day one. Both new and seasoned users will be able to operate the meter easily and effectively due to step-by-step on screen prompts resulting in consistently accurate measurements. Each portable meter can be configured to fit your needs with the variety of electrodes and accessories available.

Description	Cat. No.
H10P	89231-666
H10D	89231-672
H10C	89231-680
H30PCO	89231-700
H30PCD	89231-688



	Specifications	H10P	H10D	H10C	H30PCO	H30PCD
pH	Range	-2 to 19			-2 to 19	-2 to 19
	Resolution	0.1/0.01			0.1/0.01	0.1/0.01
	Relative Accuracy	≤ 0.01 pH (± 1 digit)			≤ 0.01 pH (± 1 digit)	≤ 0.01 pH (± 1 digit)
	Reproducibility	± 0.01 pH (± 1 digit)			± 0.01 pH (± 1 digit)	± 0.01 pH (± 1 digit)
	Calibration	Up to 5 points			Up to 5 points	Up to 5 points
mV (ORP/ Redox)	Range	± 2000 mV			± 2000 mV	± 2000 mV
	Resolution	.01 in the range of ± 199.9 mV, 1 mv in rest of range			.01 in the range of ± 199.9 mV, 1 mv in rest of range	.01 in the range of ± 199.9 mV, 1 mv in rest of range
	Relative Accuracy	≤ 0.2 mV or ≤ 2 (± 1 digit) (0.5%)			≤ 0.2 mV or ≤ 2 (± 1 digit) (0.5%)	≤ 0.2 mV or ≤ 2 (± 1 digit) (0.5%)
	Reproducibility	± 0.1 mV (± 1 digit)			± 0.1 mV (± 1 digit)	± 0.1 mV (± 1 digit)
Temperature	Range	-20 to 150°C (-4 to 302°F)	-20 to 150°C (-4 to 302°F)	-20 to 150°C (-4 to 302°F)	-20 to 150°C (-4 to 302°F)	-20 to 150°C (-4 to 302°F)
	Resolution	0.1°C	0.1°C	0.1°C	0.1°C	0.1°C
	Relative Accuracy	≤ 0.2°C (± 1 digit)	≤ 0.2°C (± 1 digit)	≤ 0.2°C (± 1 digit)	≤ 0.2°C (± 1 digit)	≤ 0.2°C (± 1 digit)
Conductivity	Range			0.001 µS/cm to 0.001 1000 mS/cm	0.001 µS/cm to 0.001 1000 mS/cm	0.001 µS/cm to 0.001 1000 mS/cm
	Relative Accuracy			≤ 0.5 % m.v. (± 1 digit)	≤ 0.5 % m.v. (± 1 digit)	≤ 0.5 % m.v. (± 1 digit)
	Reproducibility			± 0.1% (± 1 digit)	± 0.1% (± 1 digit)	± 0.1% (± 1 digit)
	Reference Temperature			15°, 20°, or 25° autoranging	15°, 20°, or 25° autoranging	15°, 20°, or 25° autoranging
Resistivity	Range			0.0001 to 100MΩ	0.0001 to 100MΩ	0.0001 to 100MΩ
	Relative Accuracy			≤ 0.5 % m.v. (± 1 digit)	≤ 0.5 % m.v. (± 1 digit)	≤ 0.5 % m.v. (± 1 digit)
	Reproducibility			± 0.1% (± 1 digit)	± 0.1% (± 1 digit)	± 0.1% (± 1 digit)
Salinity	Range			± 0.1% (± 1 digit)	5.85 mg/L to 311.1 g/L	5.85 mg/L to 311.1 g/L
	Relative Accuracy			≤ 0.5 % m.v. (± 1 digit)	≤ 0.5 % m.v. (± 1 digit)	≤ 0.5 % m.v. (± 1 digit)
	Reproducibility			± 0.1% (± 1 digit)	± 0.1% (± 1 digit)	± 0.1% (± 1 digit)
TDS	Range			0 mg/L to 4444.4 g/L	0 mg/L to 4444.4 g/L	0 mg/L to 4444.4 g/L
	Relative Accuracy			≤ 0.5 % m.v. (± 1 digit)	≤ 0.5 % m.v. (± 1 digit)	≤ 0.5 % m.v. (± 1 digit)
	Reproducibility			± 0.1% (± 1 digit)	± 0.1% (± 1 digit)	± 0.1% (± 1 digit)
DO	Range	0.00 to 60.0 mg/L				0.00 to 60.0 mg/L
	Relative Accuracy	≤ 0.5 % m.v. (± 1 digit)				≤ 0.5 % m.v. (± 1 digit)
	Reproducibility	± 0.1% (± 1 digit)				± 0.2% (± 1 digit)
	Barometric Pressure	450-850 mm Hg				450-850 mm Hg

Low Ionic Strength / Ultrapure Sample Package

All you need to get results that are up to your standards.

VWR sympHony® Low Ionic Strength/Ultrapure Sample Package

- Simple to operate and maintain
- Consistently accurate and reliable measurements
- Configurable to each user's unique needs
- Up to five-point calibration

The VWR sympHony® Low Ionic Strength / Ultrapure Sample Package is designed to fit the unique needs of testing pure samples. This package includes a refillable Ag/AgCl reference glass body pH electrode with integrated temperature sensor.

The sleeve diaphragm of the electrode allows for high flow of the reference solution, mitigating drift, slow response times, non-reproducible and inaccurate readings that are common in low ionic strength measurements.

Package includes:

- B10P Benchtop pH Meter (Cat. No. 89231-662)
- ATC Refillable pH Electrode (Cat. No. 89231-598)
- Probe Stand, with Stirrer (Cat. No. 89236-594)
- pH 4.00, 7.01, and 10.01 Singlet Buffer Solutions (Cat. Nos. 89236-548, 89236-550, 89236-552)



Description	Cat. No.
Low Ionic Strength / Ultrapure Sample Package	89236-554

BENCHTOP METER PACKAGES

Extreme pH Package

A complete solution for any pH range.

VWR sympHony® Extreme pH Package

- Simple to operate and maintain
- Consistently accurate and reliable measurements
- Configurable to each user's unique needs
- Up to five-point calibration

The VWR sympHony® Extreme pH Package is ideally suited to perform regardless of sample pH. This package includes a refillable Ag/AgCl reference glass body pH electrode with integrated temperature sensor, designed to minimize the effects of acid and alkaline errors.

Package includes:

- B10P Benchtop pH Meter (Cat. No. 89231-662)
- ATC Refillable pH Electrode (Cat. No. 89231-596)
- Probe Stand, with Stirrer (Cat. No. 89236-594)
- pH 4.00, 7.01, and 10.01 Singlet Buffer Solutions (Cat. Nos. 89236-548, 89236-550, 89236-552)

Description	Cat. No.
Extreme pH Package	89236-556

Difficult Sample Package

A complete solution for a wide variety of sample matrices.

VWR sympHony® Difficult Sample Package

- Simple to operate and maintain
- Consistently accurate and reliable measurements
- Configurable to each user's unique needs
- Up to five-point calibration

The VWR sympHony® Difficult Sample Package is designed to work well in sample matrices such as biological buffers and enzymes, viscous or non-aqueous samples, and samples containing sulfides. This package includes a refillable Ag/AgCl reference glass body pH electrode with integrated temperature sensor. The sleeve diaphragm of the electrode allows for high flow of the reference solution while the silver ion barrier prevents precipitation of the filling solution when used in these difficult applications.

Package includes:

- B10P Benchtop pH Meter (Cat. No. 89231-662)
- ATC Refillable pH Electrode (Cat. No. 89231-598)
- Probe Stand, with Stirrer (Cat. No. 89236-594)
- pH 4.00, 7.01, and 10.01 Singlet Buffer Solutions (Cat. Nos. 89236-548, 89236-550, 89236-552)

Description	Cat. No.
Difficult Sample Package	89236-558

General Purpose Package

A simple, easy to use all purpose bundle.

VWR sympHony® General Purpose Package

- Simple to operate and maintain
- Consistently accurate and reliable measurements
- Configurable to each user's unique needs
- Up to five-point calibration

The VWR sympHony® General Purpose Package is designed to meet the needs of most common pH applications. The package includes a low-maintenance epoxy body non-refillable electrode with integrated temperature sensor.

Package includes:

- B10P Benchtop pH Meter (Cat. No. 89231-662)
- ATC Non-Refillable pH Electrode (Cat. No. 89231-600)
- Probe Stand, with Stirrer (Cat. No. 89236-594)
- pH 4.01, 7.00, and 10.01 Singlet Buffer Solutions (Cat. Nos. 89236-548, 89236-550, 89236-552)

Description	Cat. No.
General Purpose Package	89236-560

Small Volume Sample Package

An all-in-one solution for your small volume sample testing needs.

VWR sympHony® Small Volume Sample Package

- Simple to operate and maintain
- Consistently accurate and reliable measurements
- Configurable to each user's unique needs
- Up to five-point calibration

The VWR sympHony® Small Volume Sample Package is designed to measure samples where volumes or diameter are limited.

The package includes a refillable epoxy body micro pH electrode with 4.75mm diameter.

Package includes:

- B10P Benchtop pH Meter (Cat. No. 89231-662)
- Glass Body Temperature Electrode (Cat. No. 89231-650)
- Refillable Micro pH Electrode, 155 x 4.75 mm (Cat. No. 89231-590)
- Probe Stand, with Stirrer (Cat. No. 89236-594)
- pH 4.01, 7.00, and 10.01 Singlet Buffer Solutions (Cat. Nos. 89236-548, 89236-550, 89236-552)

Description	Cat. No.
Small Volume Sample Package	89236-562

High Throughput Package

Simplified measurement for high throughput labs.

VWR sympHony® High Throughput Package

- Simple to operate and maintain
- Consistently accurate and reliable measurements
- Configurable to each user's unique needs
- Up to five-point calibration

The VWR sympHony® High Throughput Package is designed for taking multiple measurements including pH, conductivity, ISEs and ORP.

Package includes:

- B30PCI Benchtop Multi-Meter (Cat. No. 89231-696)
- Dual Stirrers with Probe Stands (Cat. No. 89236-594)
- pH 4.01, 7.00, and 10.01 Singlet Buffer Solutions (Cat. No. 89236-548, 89236-550, 89236-552)

Note: This package does not include an electrode.

High Throughput Package Cat. No. 89236-564

Description	Cat. No.
High Throughput Package	89236-564



Portable pH Package

For all your on-the-go pH testing needs.

VWR sympHony® Portable pH Package

- Simple to operate and maintain
- Consistently accurate and reliable measurements
- Configurable to each user's unique needs
- Up to five-point calibration

The VWR sympHony® Portable pH Package is designed for testing pH in the field. This package comes with a low maintenance

non-refillable polycarbonate body electrode with integrated temperature sensor.

Package includes:

- H10P Portable pH Meter (Cat. No. 89231-666)
- Portable Non-Refillable ATC pH Electrode (Cat. No. 89231-608)
- pH 4.00, 7.01, and 10.01 Singlet Buffer Solutions (Cat. Nos. 89236-548, 89236-550, 89236-552)
- Carrying Case (Cat. No. 89236-580)

Description	Cat. No.
Portable pH Package	89236-566

KITS

A variety of benchtop and portable kits allow you to make sure you have the right tools for your lab's unique needs. Get up and running in no time with one of these customized solutions, each containing a sympHony meter and at least one probe.



Benchtop Kits

Description	Cat. No.
B10P Meter with pH Probe Includes: 89231-662, 89231-580	89231-664
B40PCID Meter with Dissolved Oxygen Probe Includes: 89231-684, 89231-624	89231-670
B10C Meter with Conductivity Probe Includes: 89231-676, 89231-614	89231-678
B40PCID Meter with pH, Conductivity and Dissolved Oxygen Probes Includes: 89231-684, 89231-586, 89231-618, 89231-624	89231-686
B20PI Meter with pH Probe Includes: 89231-692, 89231-580	89231-694
B30PCI Meter with pH and Conductivity Probes Includes: 89231-696, 89231-580, 89231-614	89231-698
B40PCID Meter with pH and Dissolved Oxygen Probes Includes: 89231-684, 89231-580, 89231-624	89231-704



Portable Kits

Description	Cat. No.
H10C Meter with Conductivity Probe Includes: 89231-680, 89231-622	89231-682
H30PCD Meter with Multi-Handle Probe Includes: 89231-688, 89231-660	89231-690
BH30PCO Meter with Multiprobe Includes: 89231-700, 89231-656	89231-702
H10P Meter with pH Probe Includes: 89231-666, 89231-608	89231-668
H10D Meter with Dissolved Oxygen Probe Includes: 89231-672, 89231-626	89231-674

pH Electrodes**Lab Refillable**

Specifications					
Range	0 to 14 pH				
Temp Range, °C	-10 to 100	-10 to 100	-10 to 100	0 to 80	0 to 80
Filling Solution ¹	89236-508	89236-508	89236-508	89236-504	89236-504
Internal Reference	Red Rod	Red Rod	Red Rod	Ag/AgCl	Ag/AgCl
Sensor Type	Standard	Thicker (rugged) bulb	Standard	Standard	Semi-micro diameter
Junction	Porous pin	Porous pin	Sleeve	Porous pin	Porous pin
TRIS Compatible (Y/N)	Y	Y	Y	N	N
Body Material	Glass	Glass	Glass	Epoxy	Glass
Length, mm	103	103	103	103	150
Diameter, mm	12	12	12	12	6.5
ATC (Y/N)	N	N	N	N	N
Connector	BNC	BNC	BNC	BNC	BNC
Meter Compatibility	B10P, B20PI, B30PCI, B40PCID				
Cat No.	89231-580	89231-582	89231-586	89231-572	89231-574

**Lab Refillable**

Specifications					
Range	0 to 14 pH	0 to 14 pH			
Temp Range, °C	0 to 100	0 to 80	0 to 80	-10 to 100	0 to 60
Filling Solution ¹	89236-514	89236-514	89236-514	89236-514	89236-514
Internal Reference	Ag/AgCl	DJ Ag/AgCl ²	DJ Ag/AgCl ²	Ag/AgCl (cartridge w/Ag+ barrier)	Ag/AgCl (cartridge w/Ag+ barrier)
Sensor Type	Standard	Micro diameter	Semi-micro diameter	Standard	Standard
Junction	High-Flow	Porous pin	Porous pin	Porous pin x 2	Sleeve
TRIS Compatible (Y/N)	N	Y	Y	Y	Y
Body Material	Epoxy	Glass	Glass	Glass	Glass
Length, mm	120	155	155	120	120
Diameter, mm	12	4.75	6.5	12	12
ATC (Y/N)	N	N	N	Y	Y
Connector	BNC	BNC	BNC	BNC+ banana	BNC+ banana
Meter Compatibility	B10P, B20PI, B30PCI, B40PCID	B10P, B20PI, B30PCI, B40PCID	B10P, B20PI, B30PCI, B40PCID	B10P, B20PI, B30PCI, B40PCID	B10P, B20PI, B30PCI, B40PCID
Cat. No.	89231-588	89231-590	89231-592	89231-596	89231-598

All electrodes have a cable length of 1m, with the exception of 89231-658 which has a cable length of 1.5m.
¹30mL filling solutions are represented in all cases. Other sizes may be available. ²DJ=Double Junction

ELECTRODES

pH Electrodes



Lab Non-Refillable

Specifications								
Range	0 to 14 pH	2 to 14 pH	0 to 14 pH	0 to 14 pH				
Temp Range, °C	0 to 80							
Filling Solution ¹	N/A							
Internal Reference	Ag/AgCl	Ag/AgCl	Ag/AgCl	Ag/AgCl	DJ Ag/AgCl ²	Ag/AgCl (sleeved)	Ag/AgCl	DJ Ag/AgCl ²
Sensor Type	Semi-micro diameter	Semi-micro diameter	Flat surface	Standard	Standard	Standard	Standard	Standard
Junction	Porous pin	Porous pin	Wick	Porous pin	Porous pin	Open	Porous pin	Porous pin
TRIS Compatible (Y/N)	N	N	N	N	Y	N	N	Y
Body Material	Epoxy	Epoxy	Epoxy	Epoxy	Epoxy	Glass	Epoxy	Epoxy
Length, mm	150	305	120	103	103	120	103	103
Diameter, mm	6.5	8	12	12	12	12	12	12
ATC (Y/N)	N	N	N	N	N	Y	Y	Y
Connector	BNC	BNC	BNC	BNC	BNC	BNC + banana	BNC + banana	BNC + banana
Meter Compatibility	B10P, B20PI, B30PCI, B40PCID							
Cat No.	89231-576	89231-578	89231-584	89231-604	89231-606	89231-594	89231-600	89231-602



Portable Non-Refillable

Specifications		
Range	0 to 14 pH	0 to 14 pH
Temp Range, °C	0 to 80	0 to 80
Filling Solution ¹	N/A	N/A
Internal Reference	Ag/AgCl	Ag/AgCl (sleeved)
Sensor Type	Standard	Standard
Junction	Porous pin	Open
TRIS Compatible (Y/N)	N	N
Body Material	PC	Glass
Length, mm	170	170
Diameter, mm	12	12
ATC (Y/N)	Y	Y
Connector	MP5	MP5
Meter Compatibility	H10P	H10P
Cat No.	89231-608	89231-610
		89231-612

All electrodes have a cable length of 1m, with the exception of 89231-658 which has a cable length of 1.5m.

¹30mL filling solutions are represented in all cases. Other sizes may be available. ²DJ=Double Junction

Conductivity Electrodes



Specifications					
Range	up to 100mS/cm	10 µS to 200 mS	up to 200 mS/cm	0.2 to 200,000 µS/cm	5 to 50,000 µS/cm
Temp Range, °C	-5 to 80	0 to 100	-5 to 80	-10 to 85	0 to 80
Sensor Type	Platinum	Graphite	Platinum	Platinum	Titanium
# Poles	2	2	3	3	3
Cell Constant (cm⁻¹)	1.0	1.0	0.6	1.0	0.3
Body Material	Polypropylene and Epoxy	Epoxy	Polypropylene and Epoxy	Polycarbonate	Titanium
Length, mm	103	134	103	170	170
Diameter, mm	12	18	12	12	12
Temp. Sensor (Y/N)	Y	Y	Y	Y	Y
Connector	RJ45	RJ45	RJ45	MP5	MP5
Meter Compatibility	B10C, B30PCI, B40PCID	B10C, B30PCI, B40PCID	B10C, B30PCI, B40PCID	H10C	H10C
Cat. No.	89231-614	89231-616	89231-618	89231-620	89231-622

ISE Electrodes



Specifications						
Parameter	Ammonia	Sodium	Chloride	Fluoride	Nitrate	Silver
Range	0.06 to 17,000 mg/L NH ₃	0.02 to 23,000 mg/L Na ⁺	0.1 to 35,500 mg/L Cl ⁻	0.01 to 19,000 mg/L F ⁻	0.1 to 14,000 mg/L NO ₃ ⁻	0.01 to 14,000 mg/L Ag ⁺
Temp Range, °C	0 to 50	0 to 50	5 to 50	5 to 50	0 to 50	0 to 50
Refillable (Y/N)	Y	Y	N	N	N	N
Filling Solution ¹	89236-520	89236-522	N/A	N/A	N/A	N/A
Internal Reference	DJ Ag/AgCl ²	DJ Ag/AgCl ²	DJ Ag/AgCl ²	DJ Ag/AgCl	DJ Ag/AgCl ²	DJ Ag/AgCl ²
Sensor Type	Replaceable gas-sensing membrane module	Glass	Solid-state crystalline	Solid-state crystalline	Solid-state PVC membrane	Solid-state crystalline
Junction	Annular Porous Ring	Porous pin	Annular Porous Ring	Annular Porous Ring	Annular Porous Ring	Annular Porous Ring
Body Material	Epoxy	Glass	Epoxy	Epoxy	Epoxy	Epoxy
Length, mm	149	103	120	120	120	120
Diameter, mm	12	12	12	12	12	12
ATC (Y/N)	N	N	N	N	N	N
Connector	BNC	BNC	BNC	BNC	BNC	BNC
Meter Compatibility	B20PI, B30PCI, B40PCID	B20PI, B30PCI, B40PCID	B20PI, B30PCI, B40PCID	B20PI, B30PCI, B40PCID	B20PI, B30PCI, B40PCID	B20PI, B30PCI, B40PCID
Cat. No.	89231-628	89231-630	89231-632	89231-634	89231-636	89231-638

All electrodes have a cable length of 1m, with the exception of 89231-658 which has a cable length of 1.5m.
¹30mL filling solutions are represented in all cases. Other sizes may be available. ²DJ=Double Junction

ELECTRODES

Dissolved Oxygen Electrodes



Specifications	
Range	0.03 mg/L - saturation 0.3% to sat.
Temp Range, °C	0 to 50
Refillable (Y/N)	Y
Filling Solution ¹	89236-518
Sensor Type	Platinum cathode, silver anode with replaceable membrane module
Body Material	ABS
Length, mm	120
Diameter, mm	12
ATC (Y/N)	Y
Connector	BNC+ banana
Meter Compatibility	B40PCID
Cat. No	89231-624
	89231-626

ORP/Redox Electrodes



Specifications	
Range	±2000 mV
Temp Range, °C	0 to 80
Refillable (Y/N)	Y
Filling Solution ¹	89236-514
Internal Reference	Ag/AgCl
Sensor Type	Platinum
Junction	Porous pin
Body Material	Glass
Length, mm	130
Diameter, mm	12
ATC (Y/N)	N
Connector	BNC
Meter Compatibility	B10P, B20PI, B30PCI, B40PCID
Cat. No	89231-640
	89231-642
	89231-644

All electrodes have a cable length of 1m, with the exception of 89231-658 which has a cable length of 1.5m.

¹30mL filling solutions are represented in all cases. Other sizes may be available.

Temperature Electrodes



Specifications		
Temp Range, °C	-10 to 105	0 to 100
Sensor Type	Glass	Steel
Body Material	Glass	Epoxy
Length, mm	103	110
Diameter, mm	7.5	6
Connector	RJ9	RJ9
Meter Compatibility	B10P, B20PI, B30PCI, B40PCID	B10P, B20PI, B30PCI, B40PCID
Cat. No	89231-650	89231-652

Reference Electrodes



Specifications		
Temp Range, °C	-10 to 100	-10 to 100
Refillable (Y/N)	Y	Y
Filling Solution ¹	89236-508	89236-508
Internal Reference	Red Rod	DJ Red Rod ²
Junction	Porous Pin	Porous Pin x2
Body Material	Glass	Glass
Length, mm	103	103
Diameter, mm	7.5	12
ATC (Y/N)	N	N
Connector	Banana	Banana
Meter Compatibility	B10P, B20PI, B30PCI, B40PCID	B10P, B20PI, B30PCI, B40PCID
Cat. No	89231-646	89231-648

All electrodes have a cable length of 1m, with the exception of 89231-658 which has a cable length of 1.5m.

¹30mL filling solutions are represented in all cases. Other sizes may be available. ²DJ=Double Junction

ELECTRODES

Multi-Parameter Electrodes



Specifications			
Parameters	pH, Conductivity, ORP	pH, Conductivity	pH, conductivity, DO
Temp Range, °C	0 to 80	0 to 80	0 to 80
Range	0 to 14 pH; 5 to 30,000 µS/cm; ±2000 mV	0 to 14 pH; 20 to 200mS/cm	0 to 14 pH; 5 to 30,000 µS/cm; 0.03 mg/L to sat.
Refillable (Y/N)	N	N	Y
Filling Solution ¹	N/A	N/A	89236-518
Internal Reference	Ag/AgCl	Ag/AgCl	Ag/AgCl
Sensor Type	pH glasC, platinum	pH glass, platinum	pH glass, platinum replaceable DO membrane
Junction	Porous Pin	Porous Pin	Porous Pin
Body Material	PC	PC	PC
Length, mm	170	170	170
Diameter, mm	12	12	40
ATC (Y/N)	Y	Y	Y
Connector	MP8	MP8	MP8
Meter Compatibility	H30PCO	H30PCO, H30PCD	H30PCD
Cat. No	89231-656	89231-658	89231-660

All electrodes have a cable length of 1m, with the exception of 89231-658 which has a cable length of 1.5m.

¹30mL filling solutions are represented in all cases. Other sizes may be available.

VWR® sympHony® offers a wide range of chemistries to fit all your unique testing needs. To learn more, please visit vwr.com

Description	Cat. No.
3 M KCl with AgCl, 30 mL	89236-504
3 M KCl with AgCl, 100 mL	89236-506
Saturated KCl, 30 mL	89236-508
Saturated KCl, 100 mL	89236-510
Saturated KCl, 500 mL	89236-512
3M KCl, 30 mL	89236-514
pH Storage Solution, 500 mL	89236-516
Dissolved Oxygen Filling Solution, 50 mL	89236-518
0.1 M NH4Cl, 50 mL	89236-520
0.02 M NH4Cl, 50 mL	89236-522
Ammonia ISE Storage Solution, 500 mL	89236-526
Ionic Strength Adjuster Pillows (for ammonia), 100 pk	89236-524
Ionic Strength Adjuster Pillows (for chloride), 100 pk	89236-528
Ionic Strength Adjuster Pillows (for fluoride), 100 pk	89236-530
Ionic Strength Adjuster Pillows (for nitrate), 100 pk	89236-532
Ionic Strength Adjuster (for silver/sulfide), 500 mL	89236-534
Ionic Strength Adjuster Pillows (for sodium) 100 pk	89236-536
46.7 µS/cm Conductivity Standard, 500 mL	89236-538
100 µS/cm Conductivity Standard, 500 mL	89236-540
146.9 µS/cm Conductivity Standard, 500 mL	89236-542
1412 µS/cm Conductivity Standard, 500 mL	89236-544
12.9 mS/cm Conductivity Standard, 500 mL	89236-546
pH 4.01 Buffer Pouches, 20 pk	89236-548
pH 7.00 Buffer Pouches, 20 pk	89236-550
pH 10.01 Buffer Pouches, 20 pk	89236-552



ACCESSORIES

A wide range of accessories are available for your sympHony meter. Whether you are looking for stands and stirrers, or replacement parts and software, your needs are covered.



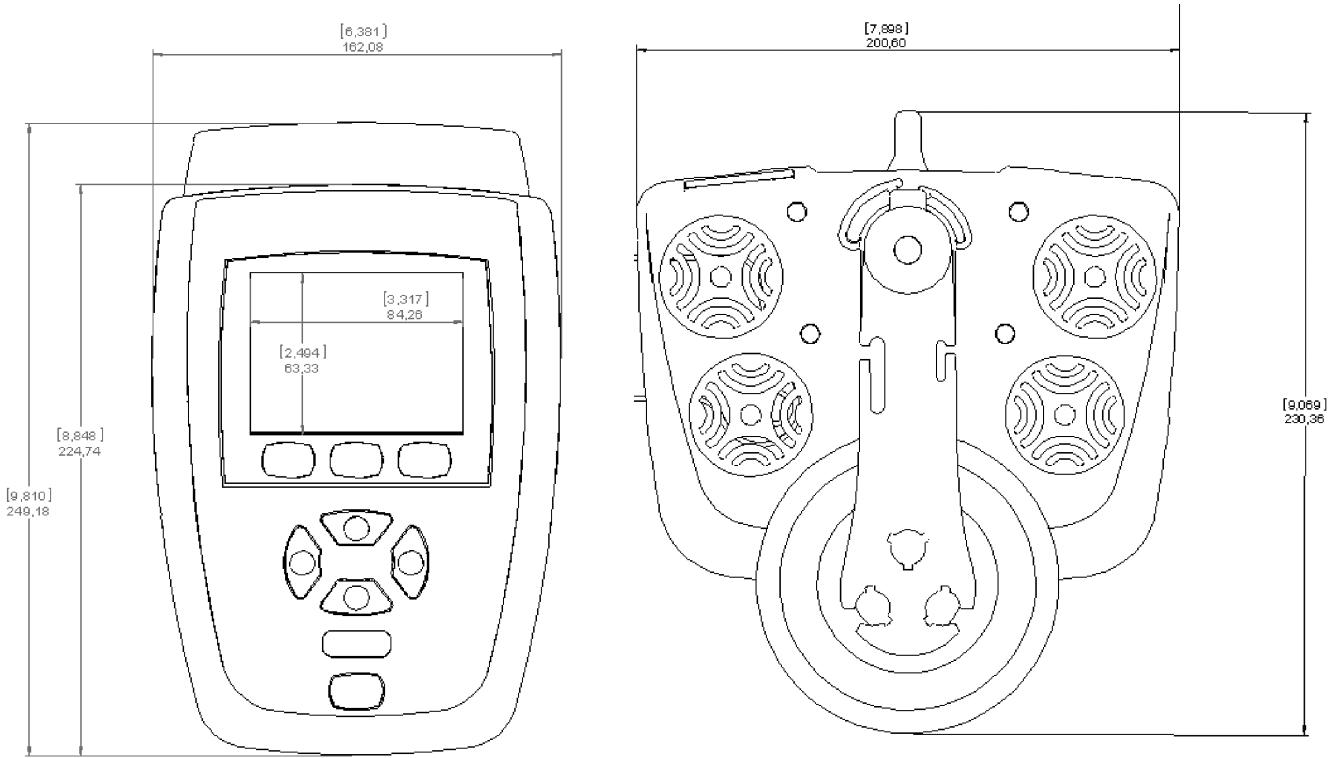
Lab Station with
Stand and Stirrer



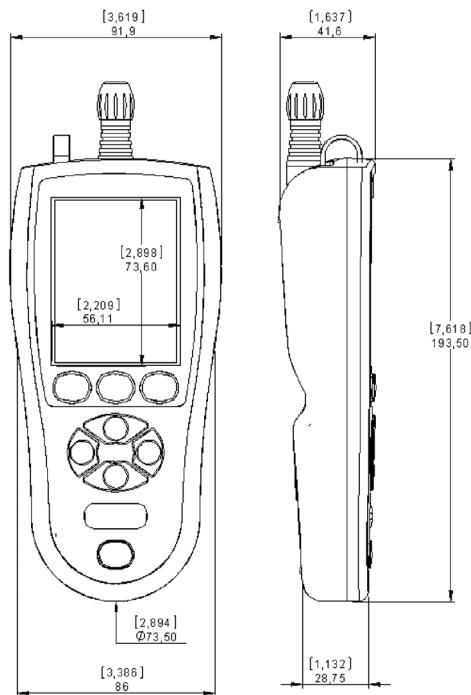
Electrode Holder
and Stand

Description	Cat. No.
Membranes, NH ₃ ISE, 3 pk	89236-568
Membranes, Dissolved Oxygen Electrode, 2 pk	89236-572
Biochemical Oxygen Demand Stirrer Accessory	89236-572
Replacement pH Sensor for 89231-660 multihandle	89236-574
Replacement Conductivity Sensor for 89231-660 multihandle	89236-576
Replacement Dissolved Oxygen Sensor for 89231-660 multihandle	89236-578
Case for Handheld Meters	89236-580
Dissolved Oxygen Probe Service Kit (Includes two membranes, filling solution and polishing cloth)	89236-582
Printer for Benchtop Meters	89236-584
Paper for Printer	89236-586
USB Cable	89236-588
Electrode Fill Hole Plug	89236-590
Electrode Protector	89236-592
Lab Station with Stand and Stirrer	89236-594
Electrode Holder and Stand (no stirrer)	89236-596
Replacement Stirrer for 89236-594	89236-598
Replacement Sensor Holder for 89236-596	89236-600

Benchtop Meter



Portable Meter



VWR sympHony® Package Selection Guide

Use this quick reference guide to help you find which sympHony® package is best suited to your unique needs.

Ideal Market/ Application ★ Best ✓ Good	PACKAGES						
	Low Ionic Strength	Extreme pH	Difficult Samples	General Purpose	Small Volume	High Throughput	Portable
Agricultural/Soils	★	✓	★		✓	★	
Beverage	★	✓	★		✓	★	
Boiler/Cooler	★	✓	★			★	
Drinking Water	★	✓	★	✓		★	✓
Waste Water	★	✓	★	★		★	★
Educational	★	★	★	★	✓	★	★
Food	★	✓	★		✓	★	
General Purpose	★	✓	★	★	✓	★	★
Low Ionic	★	✓	★			★	
Low or High pH	✓	★	✓	✓	✓	★	✓
Non-Aqueous	★	✓	★		✓	★	
Petro-Chemical	★	✓	★		✓	★	
Pharmaceutical	★	✓	★	✓	★	★	✓
Pool/Spa	✓	✓	✓	★	✓	★	★
Seawater	★	✓	★	★	✓	★	★
Tris, Biological	★	★	★		★	★	
Viscous	★	✓	★		✓	★	
Rugged	✓	✓	✓			★	★

Description	Cat. No.
Low Ionic Strength	89236-554
Extreme pH	89236-556
Difficult Samples	89236-558
General Purpose	89236-560
Small Volume	89236-562
High Throughput*	89236-564
Portable	89236-566

* This package does not include an electrode. Performance in your specific application is dependent upon electrode selection.



1.800.932.5000 | vwr.com

Prices and product details are current when published; subject to change without notice. Certain products may be limited by federal, state, provincial, or local regulations. VWR makes no claims or warranties concerning sustainable/green products. Any claims concerning sustainable/green products are the sole claims of the manufacturer and not those of VWR International, LLC. All prices are in US dollars unless otherwise noted. Offers valid in US and Canada, void where prohibited by law or company policy, while supplies last. VWR, the VWR logo and variations on the foregoing are registered (®) or unregistered trademarks and service marks, of VWR International, LLC and its related companies. All other marks referenced are registered by their respective owner(s). Visit vwr.com to view our privacy policy, trademark owners and additional disclaimers. ©2015 VWR International, LLC. All rights reserved.

6464_05_JS 2016