

VWR[®] sympHony[®] electrochemistry

01. SIMPLICITY

02. ACCURACY

03. CONFIGURABLE



VWR® sympHony® electrochemistry

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



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VWR® BENCHTOP METERS

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)
Salinity	Reproducibility		± 0.1% (± 1 digit)		± 0.1% (± 1 digit)	± 0.1% (± 1 digit)
	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
TDS	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 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					± 0.2% (± 1 digit)
	Barometric Pressure					450-850 mm Hg

Benchtop meter packages

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



VWR® SYMPHONY® LOW IONIC STRENGTH/ULTRAPURE SAMPLE PACKAGE

ALL YOU NEED TO GET RESULTS THAT ARE UP TO YOUR STANDARDS

This package is designed to fit the unique needs of testing pure samples. It 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, and 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)

VWR® SYMPHONY® DIFFICULT SAMPLE PACKAGE

A COMPLETE SOLUTION FOR A WIDE VARIETY OF SAMPLE MATRICES

The 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. It 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.
Low Ionic Strength / Ultrapure Sample Package	89236-554

Description	Cat. No.
Difficult Sample Package	89236-558

VWR® SYMPHONY® EXTREME pH PACKAGE

A COMPLETE SOLUTION FOR ANY pH RANGE

This analysis package is ideally suited to perform regardless of sample pH. It 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

VWR® SYMPHONY® GENERAL PURPOSE PACKAGE

A SIMPLE, EASY-TO-USE ALL PURPOSE BUNDLE

This analysis package is designed to meet the needs of most common pH applications.

It 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

VWR® SYMPHONY® SMALL VOLUME SAMPLE PACKAGE

AN ALL-IN-ONE SOLUTION FOR YOUR SMALL VOLUME SAMPLE TESTING NEEDS

This packages measures samples where volumes or diameter are limited.

It includes a refillable glass 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

VWR® SYMPHONY® HIGH THROUGHPUT PACKAGE

SIMPLIFIED MEASUREMENT FOR HIGH THROUGHPUT LABS

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.

Description	Cat. No.
High Throughput Package	89236-564

VWR® 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
	Range	± 2000 mV			± 2000 mV	± 2000 mV
mV (ORP/Redox)		.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)
	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)
Temperature	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 0.0011000 mS/cm	0.001 µS/cm to 0.0011000 mS/cm	0.001 µS/cm to 0.0011000 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)
Salinity	Reproducibility			± 0.1% (± 1 digit)	± 0.1% (± 1 digit)	± 0.1% (± 1 digit)
	Range			± 0.1% (± 1 digit)	5.85 mg/L to 311.1 g/L	5.85 mg/L to 311.1 g/L
TDS	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)			± 0.1% (± 1 digit)
	Barometric Pressure		450-850 mm Hg			450-850 mm Hg

VWR® SYMPHONY® PORTABLE pH PACKAGE

FOR ALL YOUR ON-THE-GO pH TESTING NEEDS

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

This analysis package is for testing pH in the field. It 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

BENCHTOP AND PORTABLE 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	0 to 14 pH	0 to 14 pH	0 to 14 pH	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	B10P, B20PI, B30PCI, B40PCID	B10P, B20PI, B30PCI, B40PCID	B10P, B20PI, B30PCI, B40PCID	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	0 to 14 pH	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	DJ Ag/AgCl	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. DJ=Double Junction

pH ELECTRODES



Lab Non-Refillable

Specifications

Range	0 to 14 pH	0 to 14 pH	0 to 14 pH	0 to 14 pH	0 to 14 pH	2 to 14 pH	0 to 14 pH	0 to 14 pH
Temp Range, °C	0 to 80	0 to 80	0 to 80	0 to 80	0 to 80	0 to 80	0 to 80	0 to 80
Filling Solution ¹	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Internal Reference	Ag/AgCl	Ag/AgCl	Ag/AgCl	Ag/AgCl	DJ Ag/AgCl	Ag/AgCl (sleeved)	Ag/AgCl	DJ Ag/AgCl
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	B10P, B20PI, B30PCI, B40PCID	B10P, B20PI, B30PCI, B40PCID	B10P, B20PI, B30PCI, B40PCID	B10P, B20PI, B30PCI, B40PCID	B10P, B20PI, B30PCI, B40PCID	B10P, B20PI, B30PCI, B40PCID	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	0 to 14 pH
Temp Range, °C	0 to 80	0 to 80	0 to 100
Filling Solution ¹	N/A	N/A	N/A
Internal Reference	Ag/AgCl	Ag/AgCl (sleeved)	Ag/AgCl (sleeved)
Sensor Type	Standard	Standard	Standard
Junction	Porous pin	Open	Annular porous ring
TRIS Compatible (Y/N)	N	N	N
Body Material	PC	Glass	Glass
Length, mm	170	170	170
Diameter, mm	12	12	12
ATC (Y/N)	Y	Y	Y
Connector	MP5	MP5	MP5
Meter Compatibility	H10P	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. DJ=Double Junction

CONDUCTIVITY ELECTRODES



Specifications

Range	up to 100mS/cm	10 μ S to 200 mS	up to 200 mS/cm	0.2 to 200,000 μ S/cm	5 to 50,000 μ S/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	1	0.6	1	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	DJ Ag/AgCl	DJ Ag/AgCl	DJ Ag/AgCl	DJ Ag/AgCl	DJ Ag/AgCl
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. DJ=Double Junction

DISSOLVED OXYGEN ELECTRODES



Specifications

Range	0.03 mg/L - saturation 0.3% to sat.	0.03 mg/L - saturation 0.3% to sat.
Temp Range, °C	0 to 50	0 to 50
Refillable (Y/N)	Y	Y
Filling Solution ¹	89236-518	89236-518
Sensor Type	Platinum cathode, silver anode with replaceable membrane module	Platinum cathode, silver anode with replaceable membrane module
Body Material	ABS	ABS
Length, mm	120	120
Diameter, mm	12	12
ATC (Y/N)	Y	Y
Connector	BNC+ banana	MP5
Meter Compatibility	B40PCID	H10D
Cat. No.	89231-624	89231-626

ORP/REDOX ELECTRODES



Specifications

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

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
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. DJ=Double Junction

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 glass, 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.

BUFFERS & SOLUTIONS

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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 NH ₄ Cl, 50 mL	89236-520
0.02 M NH ₄ Cl, 50 mL	89236-522
Ammonia ISE Storage Solution, 500 mL	89236-526
Ionic Strength Adjuster Pillows (for ammonia), 100 pk	89236-524

Description	Cat. No.
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
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

VWR has a wide range of accessories

A variety 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.



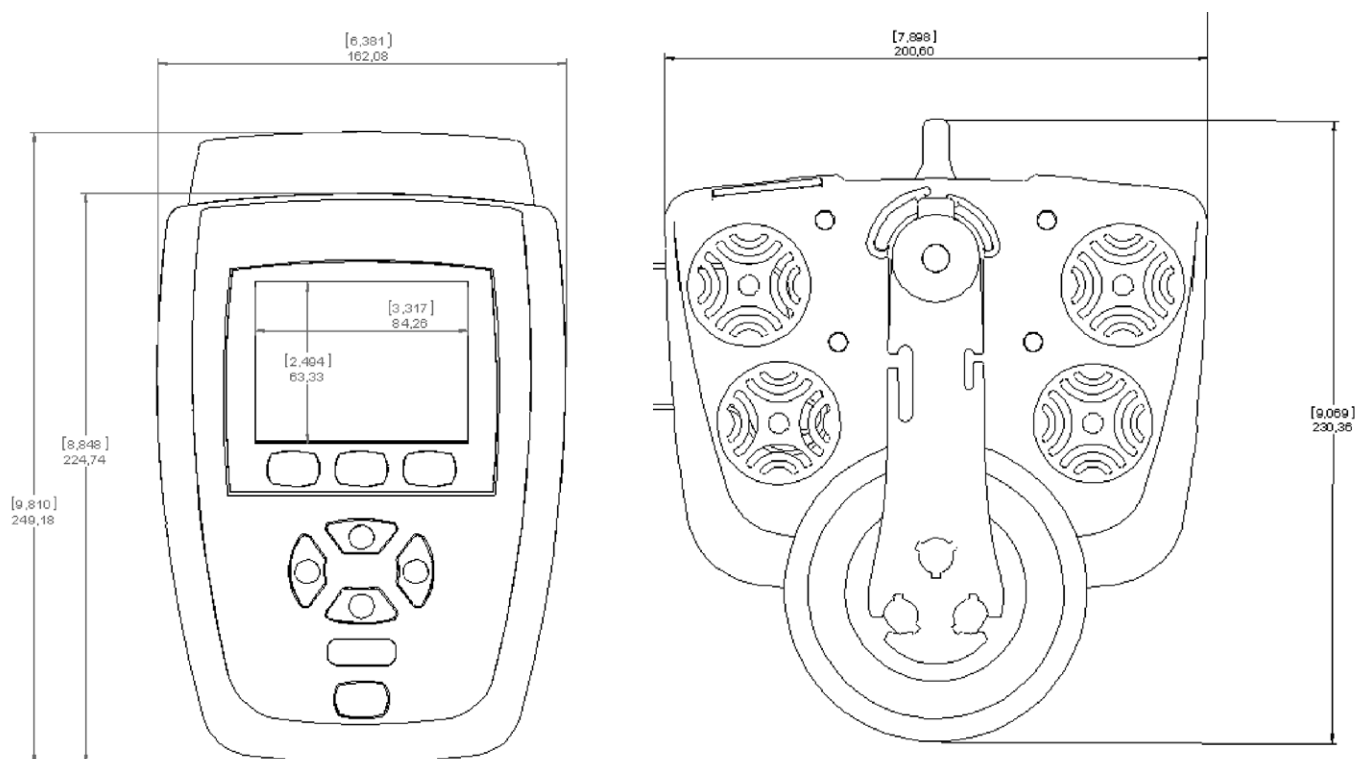
Lab Station with Stand and Stirrer



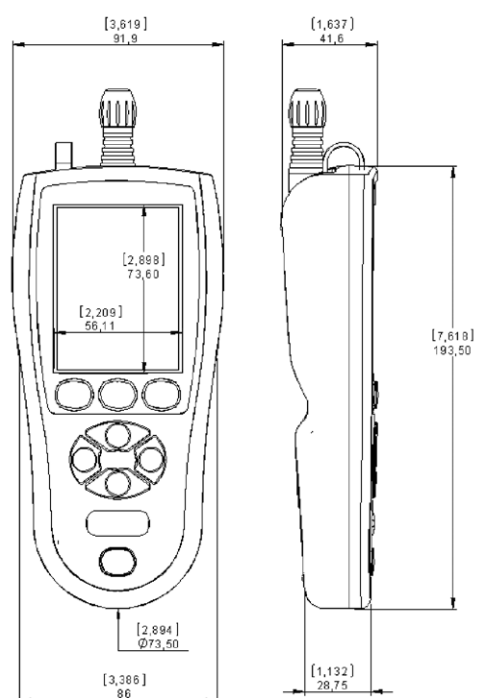
Electrode Holder and Stand

Description	Cat. No.
Membranes, NH3 ISE, 3 pk	89236-568
Membranes, Dissolved Oxygen Electrode, 2 pk	89236-570
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.

Packages

Ideal Market/Application	Low Ionic Strength	Extreme pH	Difficult Samples	General Purpose	Small Volume	High Throughput*	Portable
	89236-554	89236-556	89236-558	89236-560	89236-562	89236-564	89236-566
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	✓	✓	✓			★	★

★ Best ✓ Good

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

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