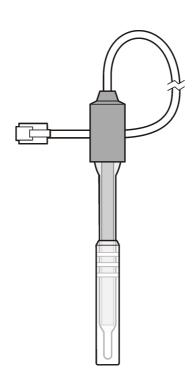


# sympHony<sup>™</sup> Temperature Probes

07/2012, Edition 1

**User Manual** 



#### Table of contents

Safety information on page 3

Specifications on page 3

Product overview on page 3

Meter compatibility on page 4

Preparation for use on page 4

Sample requirements on page 4

Maintenance on page 4

## Safety information

#### Precautionary labels

Read all labels and tags attached to the instrument. Personal injury or damage to the instrument could occur if not observed. A symbol on the instrument is referenced in the manual with a precautionary statement.



Electrical equipment marked with this symbol may not be disposed of in European public disposal systems after 12 August of 2005. In conformity with European local and national regulations (EU Directive 2002/96/EC), European electrical equipment users must now return old or end-of-life equipment to the Producer for disposal at no charge to the user.

**Note:** For return for recycling, please contact the equipment producer or supplier for instructions on how to return endof-life equipment, producer-supplied electrical accessories, and all auxiliary items for proper disposal.

# **Specifications**

Specifications are subject to change without notice.

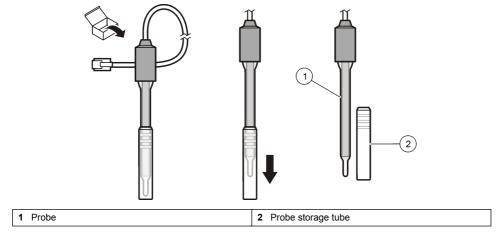
Specification	89231-650	89231-652	
Temperature range	-10 to 105 °C (14 to 221 °F)	0 to 100 °C (32 to 212 °F)	
Body material	Glass	Epoxy	
Length	103 mm	110 mm	
Diameter	7.5 mm	6 mm	
Cable	1 m	1 m	
Connector	RJ9	RJ9	

#### Product overview

The temperature probes are used to measure the temperature of aqueous and organic solutions including strong acids. Refer to Figure 1. Refer to Sample requirements on page 4.

These temperature probes are used with probes without a temperature sensor for automatic temperature compensation (ATC) when used with sympHony meters. Refer to Meter compatibility on page 4.

Figure 1 Probe overview



## Meter compatibility

The temperature probes are compatible with the sympHony benchtop meter models: B10P, B10C, B20PI, B30PCI and B40PCID.

## Preparation for use

#### **ACAUTION**



Personal injury hazard. Broken glass can cause cuts. Use tools and personal protective equipment to remove broken glass.

Remove the probe storage tube from the probe. Keep the probe storage tube for storage.

## Sample requirements

Some probes are not compatible with specific sample types. Probe damage can occur.

- Do not use epoxy body probes in samples that contain non-aqueous solutions or organic solvents.
- Samples should be aqueous. Measurements may be made in partially aqueous or some watermiscible solvents.
- Proteins can collect on the sensing element. Make sure the probe stays clean when these types of samples are measured.
- Do not use probes in solutions that are outside the temperature range of the probe.

#### **Maintenance**

## Clean the probe

Clean the probe when there is contamination on the sensor. Symptoms of contamination are:

- Readings are not accurate or consistent.
- The stabilization time is slow.
- Contamination is visible on the probe (i.e., dirt).
- 1. Rinse the probe with deionized water. Blot dry with a lint-free cloth.
- 2. Soak the probe tip in the applicable cleaning agent. Refer to Table 1.

- 3. Rinse or soak the probe for 1 minute in deionized water.
- 4. Blot dry with a lint-free cloth.

## Table 1 Cleaning agent

Contaminant	Cleaning agent	Soak time	
General contaminants	Electrode cleaning solution	12–16 hours	
Mineral deposits	0.1 N HCl solution	10–15 minutes	
Fats, grease and oils	Warm, mild detergent solution	2 hours (maximum)	



#### vwr.com 1.800.932.5000

Prices, product appearance and specifications are current at the time of printing, subject to change without notice. Availability for certain products may be limited by federal, state, provincial or local licensing requirements. All prices are in U.S. dollars unless otherwise noted. Offers valid in USA, void where prohibited by law or company policy, while supplies last. Visit vwr.com to view our policy and additional disclaimers.

VWR, forms of VWR and the VWR logo and/or design are either registered trademarks, trademarks, or service marks of VWR International, Inc. in the United States and/or other countries. All other marks referenced herein are registered marks of their respective owner(s). For a complete list of trademarks owners, please visit vwr.com.