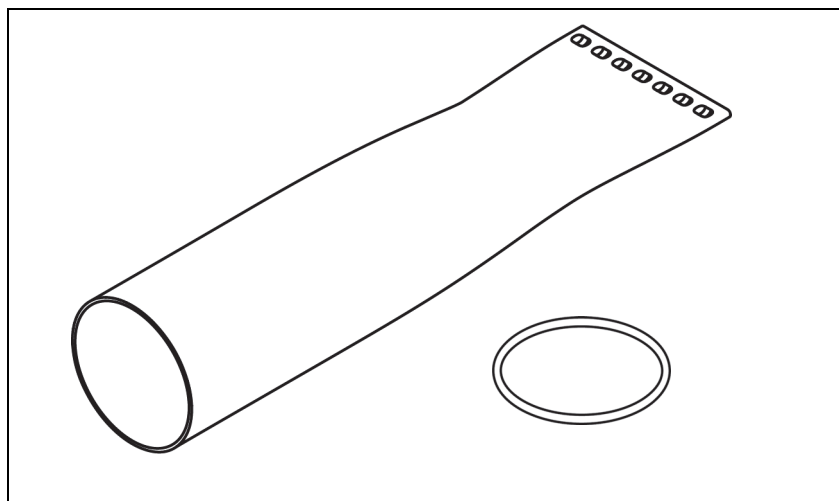


Dissolved CO₂ Waterproof Sleeve Accessory

PS-3545



WARNING: The PS-3208 Wireless CO₂ Sensor is NOT a waterproof or immersible sensor. Failure to correctly test and install the sleeve could void the product warranty and damage the sensor.

Included Equipment	Quantity
Sleeve	5
O-ring	5

Overview

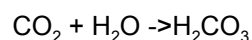
The Dissolved CO₂ Waterproof Sleeve is designed to be used with the PASCO Wireless CO₂ Sensor* (PS-3208). The Waterproof Sleeve is a membrane made of ePTFE (expanded polytetrafluoroethylene, similar to Teflon®) which is permeable to many gases including carbon dioxide, but impermeable to water. When the sleeve is installed, the probe of the CO₂ Sensor can be submerged for monitoring CO₂ exchange in an aqueous environment.

(*See the PASCO Web site at

www.pasco.com

or more information.)

Once dissolved into water, CO₂ exists in a chemical equilibrium and forms carbonic acid (H₂CO₃).



This equilibrium is affected by pH, temperature, dissolved ions, and partial pressure of the CO₂ gas. The impact of this dynamic equilibrium is a relatively slower response in the gas measurement when compared to other dissolved gas sensors like oxygen. Due to these variables the measurements of dissolved CO₂ are qualitative and accuracy of the measurement is difficult to assign.

Procedure

1. Visually inspect the ePTFE sleeve to look for punctures or tears, if any imperfections are visible discard the sleeve and replace it.

2. Insert the probe end of the sensor into the sleeve. Make sure the sleeve is completely over the collar of the probe stopper.

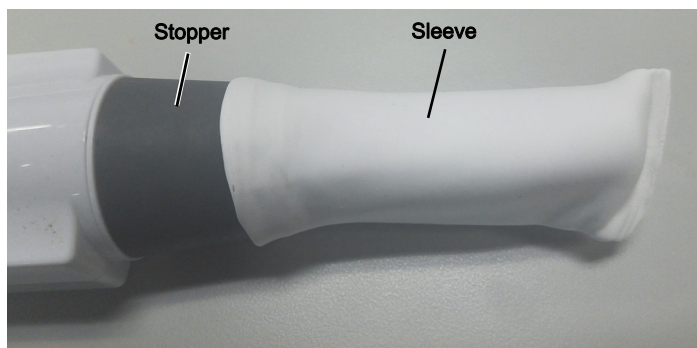


Figure 1: Sleeve over the collar of the stopper

3. It may be necessary to gently stretch the sleeve.

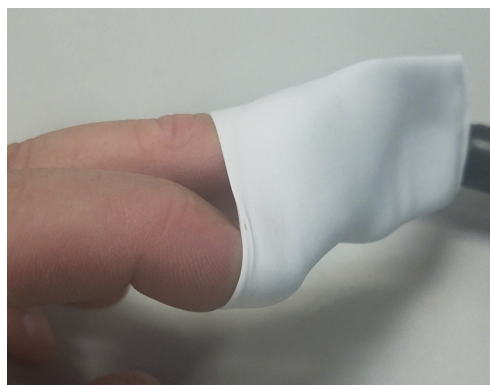


Figure 2: Stretching the sleeve

4. Put the O-ring over the sleeve and secure it into the notch of the stopper. The sensor can now safely be submerged into solutions up to the O-ring. Use the 250-mL sample bottle included with the Wireless CO₂ Sensor or another container.

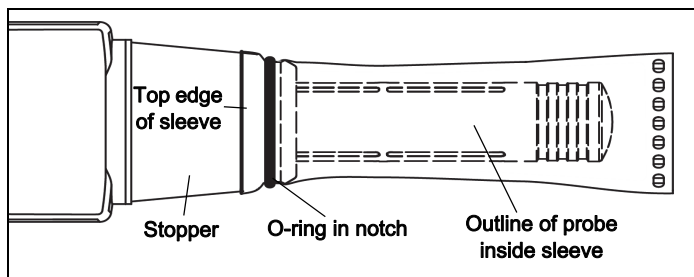


Figure 3: Sleeve and O-ring on sensor probe

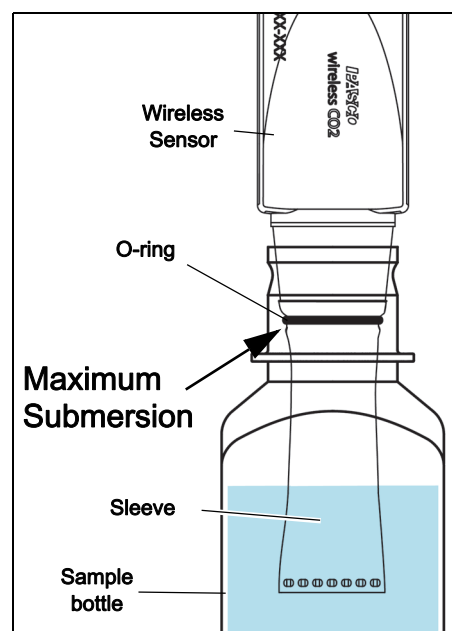


Figure 4: Sensor, Sleeve, and Sample Bottle

Technical Support

For assistance with any PASCO product, contact PASCO at:

Address: PASCO scientific
10101 Foothills Blvd.
Roseville, CA 95747-7100

Phone: 916-462-8384 (worldwide)
800-772-8700 (U.S.)

Email: techsupp@pasco.com

Limited Warranty

For a description of the product warranty, see the PASCO catalog.

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