

Supplier Scouting Opportunity

Item to be scouted: Phosphate Sensor

Item description: This product performs lab-grade measurements in all liquid water environments - high performance sensitive wet-chemical analysis; high resolution data up to every 5 minutes; easily swappable reagents; thousands of readings per reagent canister; onboard calibration and standardization; contained onboard waste storage; deployable to 6000 meter depth. Applications include rivers/estuarine monitoring, aquaculture, ocean science, autonomous vehicles, and wastewater monitoring.

NAICS code: 334513

Technical Information

Supplier Information

Type of supplier being sought: Manufacturer

Reason for scouting submission: Sole Source Foreign Manufacture (BABA)

Summary of technical specifications and performance requirements

Describe the manufacturing processes (elaborate to provide as much detail as possible): Electronic and mechanical assembly. Manufacturing processes are not provided in specification documentation for sensor.

Provide dimensions / size / tolerances / performance specifications for the

item: Temperature range: 0-35 degrees C; Power consumption: 1.8 W; Range: 0-100 uM; Limit of Detection: 0-02 uM; Sample volume: 0.6 mL; Max depth: 6000 m; Comms: USB/serial; Total height: 56 cm; Total width: 16 cm.

Must weigh less than 6.8 kg in air with reagents on board for mooring purposes; must work on an LED wavelength of 870 nm; must draw no more than 1.8 W at max capacity; must have either RS233/RS485 communications output; must have detection limit of less than or equal to 0.02 uM; must have range of 0-100 uM; must be able to internally record at least 1GB of memory; must have a sample rate of at least one sample per 6 minutes; reagents must be enclosed in plastic cartridges; must be able to record 1000 samples at a minimum; software and communications cables must be provided by vendor; must have depth rating of 6000 meters; must operate within a temperature range of 0-35 degrees C; waste must be stored in onboard canister; must have a deployment cable (open tail) 5 meters in length. Reagent cartridges must be refillable from vendor and purchased from vendor or swappable.

List required materials needed to make the product, including materials of product components:

Required materials are not provided in specification documentation for sensor.

Are there applicable certification requirements?: No

Are there applicable regulations?: No

Are there any other standards, requirements, etc.?: No

Business Information

Volume and pricing

Estimated potential business volume: One-time purchase of quantity 1 phosphate sensor with quantity 1 deployment cable.

Estimated target price / unit cost information (if unavailable explain): \$25,570.00 total

Delivery requirements

When is it needed by?: Deliver by 30 days after date of award.

Describe packaging requirements: Packaging guidance not provided by program office.

Where will this item be shipped?: 4840 South State Street, Ann Arbor, MI 48108

Additional comments

Is there other information you would like to include?: Other brands were already sent to the program office for technical evaluation. Brands include Sea-Bird's HydroCycle-PO4 (no longer manufactured), Xylem's Alyza IQ, and Yokogawa's WE440. None were found to be technically acceptable and meet all requirements.

Additional Information

Photos or diagrams of the item








Check if you uploaded file(s) to Box.com: Yes

Agree (click to read agreement): Yes

Phosphate sensor

Based on advanced lab-on-chip technology, this miniaturised microfluidic phosphate sensor performs lab-grade measurements in all liquid water environments.



-  High performance - Sensitive wet-chemical analysis
-  High-resolution data - up to every 5 minutes
-  User friendly - Easily swappable reagents
-  Long endurance - Thousands of readings per reagent canister
-  No drift - Onboard calibration and standardisation
-  Environmentally friendly - Contained onboard waste storage
-  Deep sea - Deployable to 6000 m depth

Specifications

Temperature range: 0-35 °C

Power consumption: 1.8 W

Range: 0-100 µM

Limit of Detection: 0.02 µM

Sample volume: 0.6 mL

Max depth: 6000 m

Comms: USB/serial

Total height: 56 cm

Applications: rivers/estuarine monitoring, aquaculture, ocean science, autonomous vehicles, wastewater monitoring