

ITEM OPPORTUNITY SYNOPSIS

Scouting Number:	2024-229
Name of the item to be scouted:	Microplate Respirometry System
State item to be used in:	Washington

Describe the Item:

<p>Please describe the item application/the end use of the item.</p>	<p>The Environmental Physiology Program has the need for a microplate respirometry system to measure respiration rate to support shellfish aquaculture research at the Northwest Fisheries Science Center (NWFSC). This system is very flexible and can be used across projects and programs within the Environmental and Fisheries Sciences (EFS) Division, including those involved in understanding bivalve responses to stress and supporting breeding for resilience in Pacific oysters. The microplates being purchased are fully compatible with existing systems. Part being sought is manufactured and distributed by a sole source in Denmark. See attached for additional information.</p>
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Supplier Information:

Type of Supplier Being Sought (select from the list below):	
Manufacturer	x
Contract Manufacturer	
Distributor	
Other (Please Specify)	
Reason for Scouting Submission (select from the list below)	
2nd Supplier	
Price	
Re-Shore	
Past supplier no longer available	
New Product Startup	
BABA	x
Other (Please Specify)	

Summary of Technical Specifications and Performance Requirements:

<p>Describe the manufacturing processes (elaborate to provide as much detail as possible)</p>	<p>Electronic Assembly</p>
<p>Provide dimensions / size / tolerances / performance specifications of the item</p>	<p>A microplate respirometry system similar in form, fit, and fashion to Loligo Systems brand is essential because of the variety of sample sizes it can handle, the precision of its measurements and its known record for working in seawater environments. Furthermore, any solution should be similar in form, fit, and fashion to the new Loligo microplates which will fully integrate with existing Loligo microplates (at 1.7mL capacity) owned by the NWFSC EFS Division, enabling compatibility across instrumentation, which will increase efficiency in training of staff and improve collection of respirometry data for species at different life stages. See attached datasheet for specifications</p>
<p>List required materials needed to make the product, including materials of product components, if applicable</p>	<p>Unknown/Various However the individual pieces of equipment required are as follows: Quantity (1) Microplate system (Core) (24 channels/80uL) See Loligo Systems P/N:SY25000 for reference. Quantity (1) 24-well glass microplate (1700 uL) See Loligo Systems P/N:CH25040 for reference. Quantity (1) Water bath for microplate See Loligo Systems P/N: CH10505 for reference.</p>

Are there applicable certification requirements?	
Yes	
No	x
Please explain:	

Are there any applicable regulations that apply to the production of this item?	
Yes	
No	x
Please explain:	

Are there any other standards / requirements?	
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Yes	
No	x
Please explain:	
NAICS CODES:	
NAICS 1	334516 Analytical laboratory instrument manufacturing
NAICS 2	
Additional Comments:	
Additional technical comments:	Product/Items must be compatible (form, fit, and function) with existing Loligo Micro-Respirator Systems and Software.
Volume and Pricing:	
Estimated Potential Business Volume (i.e. #units per day, month, year):	This is a one-time purchase.
Estimated Target Price/Unit Cost Information:	For all three pieces of equipment, the total value is 21,654.54. Microplate system (Core) (24 channels/80uL) Valued At \$18,491.85 24-well glass microplate (1700 uL) Valued At \$2,725.00 Water bath for microplate Valued At \$288.85
Delivery Requirements:	
When is it needed by? (Immediate, 30 days, 6 months, etc.)	Delivery is expected within 60 days following the award. We anticipate the award between October 1 and November 1, or earlier if possible.
Describe packaging requirements (i.e. individually/group packaging, etc.)	We have no preference for the method of transportation or packaging.
Where will this item be shipped?	Seattle, WA 98112
Additional Comments:	
Is there other information you would like to include?	Contact information for questions including BABA/Buy American compliance: Environmental and Fisheries Sciences (EFS) Division at the Northwest Fisheries Science Center Mackenzie Gavery mackenzie.gavery@noaa.gov Please copy scouting@nist.gov on all correspondence. This is a Simplified Acquisition, which has a shorter lead time to completion than an action over \$250,000.00. It is expected that this requirement will be awarded within the next 30 days, and any timely scouting (requested completed within 15 days from submission) would be appreciated to align with Simplified Acquisition requirements for posting and the Buy American Act Waiver process.

Specifications table for micro plate reader system

Specifications	Micro plate reader system
Compatible oxygen sensor	Sensor spots
Oxygen channels	24
Power supply	18-24 V DC
Power adapter	100-240V AC in; 18-24 V DC out
Communication interface	USB 2.0
Dimensions [mm]	163 x 89 x 22
Weight [g]	380
Windows version	WIN10
Oxygen unit	% oxygen saturation, % air saturation, kPa, Torr, mg/L, mmol or ml/L.
Measurement range	0 – 50 % oxygen saturation 0 – 235 % air saturation 0 – 50 kPa 0 – 235 Torr 0 – 22,5 mg/L 0 – 700 µmol 0 – 22,5 ml/L
Resolution	± 0.4 % O ₂ at 20.9 % O ₂ ± 4 hPa at 207 hPa ± 5 µmol at 283.1 µmol ± 2 % air saturation at 100 % air saturation
Precision	± 1 % O ₂ at 20.9 % O ₂ ± 5 % air saturation at 100 % air saturation
Drift at 0 % oxygen (sampling interval 10 min)	< 0.2 % O ₂ within one week < 1 % air saturation within one week
Measurement temperature range	5 – 45 °C
Response time (T90)	< 30 sec.
Sensor properties	MINI
Compatibility	Aqueous solutions, ethanol, methanol
Cross-sensitivity to	Reduced to ionic strength (salinity); high concentration of small fluorescent molecules in the visible range can interfere
Cleaning procedures	3 % H ₂ O ₂ , Cleaning in place (CIP, 5 % NaOH, 90 °C, 194 °F) Acidic agents (HCl, H ₂ SO ₄), max. 4 – 5 %
Calibration	one- or two-point calibration