



Republic of the Philippines  
**VISAYAS STATE UNIVERSITY**  
Visca, Baybay City, Leyte

## PURCHASE REQUEST

S.E.30

PPMP No. : **PPMP-2025-031925-1053**PR No.: **TF-2025-05-00592**Date: **05-09-2025**Dept./Office: **PCC**Category: **Laboratory  
Equipment**Section/End-User: **Mariles V. Bulawan**Funding Source: **Trust Fund**Project Title/Code: **Dairy Herd Build-up**

Item #	Item Description	Unit	Qty	Unit Cost	PAR/ICS	Total Cost
1	Nitrate Analyzer	unit	1	35,000.00		35,000.00

**Specification:**

- Nitrate as Nitrogen, NO<sub>3</sub><sup>+</sup>-N sensor

**Sensor**

- A three electrode system with spray cleaner, Nitrate ISE (NO<sub>3</sub><sup>-</sup>-N) is the primary measurement. The chloride ISE is used to compensate the NO<sub>3</sub><sup>-</sup> signal. An optional pH or NH<sub>4</sub> electrode is available for additional measurements. The sensor is waterproof with an ingress rating of IP 68.

**Measurement Range**

- NO<sub>3</sub><sup>-</sup>-N: 0.1 to 14,000 ppm
- NH<sub>4</sub><sup>+</sup>-N: 0.1 to 14,000 ppm

**Operating Temperature**

- 0? to 50? C (32?F to 122? F)

**Min/Max Flow Rate**

- Minimum 0.1 m/s
- Maximum 3.0 m/s

**Wetted Materials**

- PCV, PES, PVDF, PTFE, Viton, Glass, 316 SS

**Accuracy**

- ± 3% of reading, dependent on Calibration

**Response Time**

- T90 1 minute

**Electrode Life**

- ISEs: 4-6 months, typical

- pH electrode: 6-12 months, typical

#### T80 Analyzer

#### Measurements

- Nitrate: 0.1 to 14,000 ppm as NO<sub>3</sub><sup>-</sup>-N
- Chloride: 2.0 to 35,000 ppm
- Ammonium: 0.1 to 14,000 ppm as NH<sub>4</sub><sup>+</sup>-N
- Temperature: 0? to 50? C (32?F to 122? F)

#### Compensation

- Chloride: 0.1 to 1000 ppm
- pH: No pH compensation

#### Display

- 2.5" x 1.75" backlit LCD

#### Enclosure

- NEMA 4X, LxWxD: 5.7"x5.7"x3.5"

#### Outputs

- (2) 4-20 mA
- Configured: 0.1 to 50mg/l NO<sub>3</sub><sup>-</sup>-N

0 – 14 pH

#### Input Power

- 110/220 VAC @ 50/60 Hz

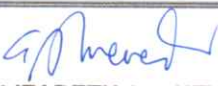
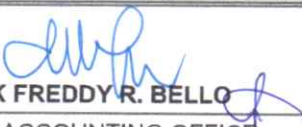
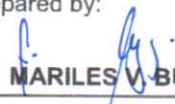


#### Alarm Relay Ratings

- (2) SPDT 230 VAC/5A

Relay (1) Spray Cleaner, Relay (2) Alarm

	<b>TOTAL</b>						<b>35,000.00</b>
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Purpose: For DHB operation

Checked by:  <b>ELIZABETH S. QUEVEDO</b>		Funds Available:  <b>NICK FREDDY R. BELLO</b>	
TWG - Laboratory Equipment		HEAD, ACCOUNTING OFFICE	
Signature:	Prepared by:  <b>MARILES V. BULAWAN</b>	Noted by:  <b>IVY FE M. LOPEZ</b>	Approved by:  <b>PROSE IVY G. YEPES</b>
Printed Name:		UNIT HEAD, PROJECT LEADER	PRESIDENT, VSU
Designation:			