



Republic of the *Philippines*  
**ZAMBOANGA CITY WATER DISTRICT**  
Pilar Street, Zamboanga City

**SUPPLEMENTAL/BID BULLETIN**  
**ADDENDUM NO. 01 – 24-0164**  
**Series of 2024**

This SUPPLEMENTAL BID BULLETIN is issued to clarify, modify or amend items in the issued Bidding Documents for the below subject procurement in view of the Pre-Bid Conference last August 15, 2024, at the BAC Room, 3<sup>rd</sup> Floor, ZCWD Bldg., Pilar Street, Zamboanga City and via Video Conferencing.

PR No.	Item Description	Issues/Amendments/Updates/Clarifications to the Bidding Documents
24-0164	Supply, Installation, Testing & Commissioning of Ultrasonic Flowmeters for Transmission Lines	<ul style="list-style-type: none"><li>• Please find attached the <b>Schedule of Requirements with the revised Delivery Period from 150 calendar days to 120 calendar days</b></li><li>• <b>Terms of Reference II General Specifications (c)</b> The bidder must secure a "Certification of Conducting Site Inspection" from the Assistant General Manager for Operations <b>or from the OIC-Department Head of PAMD</b></li><li>• Please find attached the <b>revised Technical Specifications.</b></li></ul>

This shall form an integral part of the Bid Documents.

For guidance and information of all concerned.

  
**ATTY. VINCENT F. FERNANDEZ**  
Chairperson  
Bids and Awards Committee

Posting date: August 21, 2024  
Posted in the Phil-GEPS, ZCWD Website & Bid Bulletin

## *Section VI. Schedule of Requirements*

The delivery schedule expressed as weeks/months stipulates hereafter a delivery date which is the date of delivery to the project site.

Item Number	Description	Quantity	Total	Delivered, Weeks/Months
1	Supply, Installation, Testing & Commissioning of Ultrasonic Clamp Flowmeter for 600mmØ for Transmission Lines	1 unit	4 units	Within 120 CD upon issuance of Notice to Proceed
2	Supply, Installation, Testing & Commissioning of Ultrasonic Clamp Flowmeter for 500mmØ for Transmission Lines	3 units		
	Delivery Point: Property Section, ZCWD Motorpool, Pasonanca, Z.C.			

# Technical Specifications

Item	Specification	Statement of Compliance
		<p><i>[Bidders must state here either "Comply" or "Not Comply" against each of the individual parameters of each Specification stating the corresponding performance parameter of the equipment offered. Statements of "Comply" or "Not Comply" must be supported by evidence in a Bidders Bid and cross-referenced to that evidence. Evidence shall be in the form of manufacturer's un-amended sales literature, unconditional statements of specification and compliance issued by the manufacturer, samples, independent test data etc., as appropriate. A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the Bid under evaluation liable for rejection. A statement either in the Bidder's statement of compliance or the supporting evidence that is found to be false either during Bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent and render the Bidder or supplier liable for prosecution subject to the applicable laws and issuances.]</i></p>
Item	Specification	Statement of Compliance
1.	<b>CLAMP-ON ULTRASONIC FLOWMETER</b>	
	<b>A. Mode of Operation and Application</b>	
	Measuring Principle:	Ultrasonic (Clamp-On)
	Flow Direction:	Bidirectional
	Pipe Size:	500mm (3 units) and 600mm (1 unit) pipe
	<b>B. Input</b>	
	Measurand:	Flow direction, Flow velocity, Sound velocity, Volume flow
	<b>B.1 Digital Input</b>	
	Number of Inputs:	2
	Product Function (parameterizable)	Freeze output, Resetting Counter 1
	Input Voltage:	2 V...10 V
	<b>B.2 Measuring Range</b>	
	Flow Velocity (maximum)	12 m/s
	<b>C. Output</b>	

<b>C.1 Current Output</b>		
Number of Outputs:	1	
Signal Range:	4 - 20 mA	
Output Voltage	24 V – 30 V	
Load (maximum)	750 Ohm	
<b>C.2 Digital Output</b>		
<b>C.2.a Pulse Output</b>		
Number	1	
<b>D. Accuracy</b>		
Measuring Accuracy: Relative	1% .....2%	
Precision Accuracy:	0.15%	
Symmetrical tolerance of the velocity of flow	12m/s	
<b>E. Operating Conditions</b>		
Medium Temperature	-40°C to +121°C	
Applicable Pipe Material	Cast Iron, Copper, Glass, Iron, Ductile Iron, Polyethylene (PE), Polyvinylchloride (PVC)	
<b>E.1 Environmental Conditions</b>		
Operational Ambient temperature	-10°C to +50°C	
<b>E.2 Degree of Protection</b>		
IP rating of the transmitter	IP65	
NEMA Enclosure Type of the transmitter	NEMA 4X	
<b>E.3 Electromagnetic Compatibility</b>		
Standard for EMC	2004/108/EC	
<b>F. Structural Design</b>		
<b>F.1 Mechanical Design</b>		
Design of the device	Remote (Separated) version, transmitter separated sensor	
Design of the Sensor	Universal	
<b>F.2 Enclosure</b>		
Material of the Sensor	Aluminum, Polyetherimide (PEI)	
Material of the Transmitter	Polycarbonate (PC)	
<b>F.3 Electrical Connections</b>		
Potential Insulation	Galvanic to all supplies	

<b>F.4 Display and Operating Controls</b>		
Design of the Display	with LCD Display	
Operating Controls	Pushbutton	
<b>G. Power Supply</b>		
<b>G.1 Electrical</b>		
Voltage Type	AC	
Nominal Voltage, AC	220 V	
Supply Voltage, AC	90 - 240 VAC	
Power consumption effective power	10 W	
<b>H. Communication</b>		
Interface for Communication	RS 485	
Protocol	Modbus	
<b>I. Certificates and Approvals</b>		
MTBF	41 a	
Standard for MTBF	SN 29500	
Determination procedure	Calculation with component load	
Applicability	SN 29500	
<b>J. Accessories and other Materials</b>		
<b>J.1 Solar Panel and Accessories</b>	<i>(Should compensate power requirement of the offered flowmeter)</i>	
Solar Panel	25 Watts or higher	
Solar Controller	50 W or higher	
Inverter	50 W or higher	
Battery	12V, 7AH or higher AH	
<b>J.2 Panel Box</b>		
Panel Box for Transmitter	IP65, NEMA 3R	
Panel Box for Solar Controller	IP65, NEMA 3R	
<b>J.3 Electrical Post and Cage</b>		
Post for Solar Panel & Panel Box	Galvanized Post (height may depend on the location to install)	
Cage for Panel Box of Transmitter	Steel matting frame with angle steel bar, all coated with anti-rust paint and anchored in an elevated concrete-based platform.	
<b>J.4 Service Laptop</b>		

Screen Resolution	1920 x 1080pixels	
Processor	Core i7 or higher	
Operating System	Windows 11	
Storage	1 TB SSD	
Battery	7h or higher	
Graphic Card	NVIDIA GeForce RTX	
Connectors	USB, Card Reader, Display Port, HDMI, Headphone Jack	
<b>J.5 Dashboard Monitor</b>		
TV/Monitor	55" LED UHD Smart TV	

**2. DATA LOGGER**

<b>Communications</b>	Programming and downloading	Via USB or RS232 or IR
	Internal cellular modem	Quad band modem supplying 850/900/1900/1900MHz bands.
<b>Sensor Input</b>	Analogue	Internal pressure transducer 0-300 psig, accuracy ± 0.1%
	Serial Input	RS232 (proprietary) for ultrasonic level monitors
<b>Logging Features</b>	Frequency	Recording Interval - programmable in 1 second increments or user defined, settings independent for primary and secondary recording.
	Memory	Primary recording can store at least 1 million readings multiple years of data and alarms/events. Configuration and data/alarms stored in non-volatile memory.
<b>Physical</b>	Operating temperature	-20 to +70°C or better
	Protection Classification	IP68 submersible at 10m depth over a 24 hours period or better
	Power Supply	Internally powered by a battery, operational for 5 years under normal operating conditions. Warranted for uninterruptible operation of up to 5 years. With external battery option. Complete with solar powered system.
<b>Special features</b>	Output data on screen should not be limited to the following:	Graphical presentation of data
		Logged data values from previous days of recording
	The logger is capable of sending text messages out but not limited to the following:	Signal strength test.
		Logger configures in database.
		Alarm status.
		Total volume for a specified duration.
		Power up logger anytime for remote request of data
Number of Channels	2 Channel (1x Internal Pressure, 1x Digital Flow)	
<b>Standard accessories</b>	External antenna, coiled pressure hose with quick release couplings.	