

TENDER NO : SIPI-BENIN/REPL/012/BDST

SUBJECT : TENDER FOR PROCUREMENT OF BI-DIRECTIONAL SCRAPPER TRAP WITH PIG LAUNCHER PSVs AND QOECs

DATED : 30/09/2024

This has reference to the subject tender. The corrigendum to the subject tender is hereby issued. All participating bidders are requested to note the changes in respect of the subject tender.

S No	Tender Clause No	Page No.	Tender Conditions	Amendment/ Addition/ Modification/ Deletion
<u>COMMERCIAL</u>				
1	Clause 7.3 IFB	6 of 66	<u>Existing:</u> The submission and opening of bids will be through e-mail at sanjay.jain@arisenet.com and gursharan@energyworld.biz	<u>To be read as:</u> The submission and opening of bids will be through e-mail at vinit.jain@arisenet.com and gursharan@energyworld.biz
2	Table 8.0 IFB	7 of 66	<u>Existing:</u> Address for Correspondence : Mr. Sanjay Jain	<u>To be read as:</u> Address for Correspondence : Mr. Vinit Jain
3	Clause 31.3 (b) IFB	12 of 66	<u>Existing:</u> The password of Price-bid shall be divided into three parts with individual 6 (six) characters. First part (first 6 character) of password shall be shared to email id: sanjay.jain@arisenet.com second part (last 6 character) shall be shared to email id: gursharan@energyworld.biz	<u>To be read as:</u> The password of Price-bid shall be divided into three parts with individual 6 (six) characters. First part (first 6 character) of password shall be shared to email id: vinit.jain@arisenet.com second part (last 6 character) shall be shared to email id: gursharan@energyworld.biz
4	Clause 8.0 of IFB	7 of 66	<u>Bid Submission Date & Time</u> 30/09/2024 till 18:00 HRS (WAT). Bids should be submitted by E-mail as per clause no. 6.3 of IFB	<u>Bid Submission Date & Time</u> 14/10/2024 till 18:00 HRS (WAT) (Bids should be submitted by E-mail as per clause no. 6.3 of IFB
5	Clause 7.9 IFB	7 of 66	<u>Technical Bid Opening Due Date</u> 01/10/2024 at 10:30 HRS (WAT)	<u>Technical Bid Opening Due Date</u> 15/10/2024 at 10:30 HRS (WAT)

TECHNICAL

6	SOR	-	Existing Schedule of rates (SOR) stands deleted	Existing SOR is replaced with Revised SOR-(Rev.01) , Bidder to submit offer in Revised SOR- Rev 01 format only. Else bid shall be rejected.
7	Technical Volume II of II		<u>Existing:</u> Data Sheets for Pig Signallers stand deleted as mentioned in technical Volume II of II, Page No. 38-40.	<u>Modification</u> Bidder to Ref Data Sheets for Pig Signaller as per Annexure-01

It is advised that the above may please be taken in consideration while submitting your offer. Please also note that this communication forms an integral part of the tender document and a duly acknowledged copy of the same is to be submitted along with technical bid.

All other terms and conditions of above referred tender remain un-altered.

Resonance Energy Pvt. Ltd.



**BID DOCUMENT FOR PROCUREMENT OF
BI-DIRECTIONAL SCRAPPER TRAP WITH
PIG SIGNALLER, PSVs and QOECs**



Resonance Energy

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ANNEXURE -01

**DATA SHEETS
OF
BI-DIRECTIONAL SCRAPPER TRAP, PIG
SIGNALLERS, QOEC & PSV**

0	27/09/2024	Issued for Review	TK	GSJ	AN
Rev	Date	Description	Prepared by	Checked by	Approved by



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DATA SHEET FOR PIG SIGNALLER (INTRUSIVE TYPE)

DESIGN CONDITIONS		
Pressure, bar(g)	98	
Temperature, °c	-20 to 65	
Design code / Design Factor	ASME B31.8 / 0.5	
ANSI Rating	600#	
Corrosion Allowance, mm	3.0 mm	
Hydrotest Pressure, bar (g)	147 bar (for 15 min)	
End Connection	Welded, Scarfed Base	
Installation	Above Ground	
Repairable under line pressure	Required	
Pig Signaller Make & Model	Vendor to specify	
Pig Signaller Tag Nos.	To be finalised during detail engineering	
General		
Service	Natural Gas	
Area Classification		
Pig Detection	At Passage	
Pig Signaller Material Specification		
Part	Specified Material	Material Offered
Body	ASTM A350 LF2	
Internals	SS-316	
Micro Switch Details		
Rating	POTENTIAL FREE CONTACT OF RATING 24V DC, 2A, DPDT	
Enclosure	WEATHER PROOF TO IP55 & FLAME PROOF EXD.	
Cable Connection	½" NPT	

1. Pig Signallers shall be with isolation valve (Full Bore) for On-line repair. Valve material shall be LTCS.
2. Visual Indicator with manual reset shall be provided.
3. Material Compliance as per EN 10204 3.2 Certificate.
4. Painting shall be suitable for Corrosive Industrial environment.



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DATA SHEET FOR PIG SIGNALLER (NON-INTRUSIVE TYPE)

General		
Service	Natural Gas	
Area Classification		
Pig Detection	At Passage	
Line Size	18"	
Process Data		
Design Temperature, (°C)	-20 to 65 (Under Ground & Above Ground)	
Operating Temperature, (°C)	55 (0C)	
Design Pressure, bar (g)	98 bar	
Operating Pressure, bar (g)	51 bar	
Multiphase Product	No	
Pipeline Specifications on which PIG Signaller to be mounted		
Specified Minimum Yield Strength (SMYS) in psi	Outer Diameter (OD) in mm (inch)	Thickness in mm
60,000	323.9 (12.75")	8.7
Sensing Element		
Type	Non- Intrusive (Bi- directional)	
Sensor Element	Piezo electrical crystal or Magnetic Type	
Sensor repeatability	1% minimum	
Connection	Universal Clamp-on Type	
Self-testing Capability	Required	
Detection Speed	Vendor to Provide	
Signal Output	2 No. Potential free contact (DPDT) (1NO+1 NC) (24 VDC 2A)	
Housing	Hermetically sealed SS316	
Terminal Box		
Body material	SS 316 as a minimum	
Degree of Protection	Explosion proof with IP 65	
Power Supply	24 VDC	
Signal Interface	To RTU/ SCADA for Pig detection through potential free contacts	
Cable Entry	½" NPTF Cable entry shall be provided as minimum: 1No for signal, 1 no. for power supply, 1 no spare Cable gland shall be double compression type with PVC shroud, explosion proof.	
Cables	Vendor to provide sensor cable between sensor & termination box. Vendor to consider a length of 5 meters between sensor & termination box. All cable shall be terminated in terminal strips. Flying leads shall not be provided, separate terminal strips to be considered for power & signals.	
Earthing	Shall be provided as per IEC 60364	



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Local Indicator	Required Green LED for Power Available Red LED for PIG Detection
Local Reset Button	Required with cover
Terminal Box Mounting	Stantion mounted, Vendor to provide suiteable mounting brackets & accessories
INSPECTION AND TESTS	<p>codes, standards and specifications, prior to shipment at his Works. Such inspections and tests shall be, but not limited to, the following:</p> <p>All pig signallers shall be visually inspected. The internal and external surfaces shall be free from any strikes, gouges and other detrimental defects. The surfaces shall be thoroughly cleaned and free from dirt, rust and scales.</p> <p>Testing and assembly procedure shall be detailed by Manufacturer and implemented during the work. Welding Inspection and testing shall be performed before any coating or painting is applied.</p>
SPARES AND ACCESSORIES	<p>Manufacturer shall furnish list of recommended spares and accessories for pig signallers required during start-up and commissioning and supply of such spares shall be included in the price quoted by Manufacturer.</p> <p>Manufacturer shall furnish list of recommended spares and accessories required for two years of normal operation and maintenance of pig signallers and price for such spares shall be quoted separately. Manufacturer shall provide special tools required for operation and maintenance as a part of supply, this includes but not limited to</p> <p>Any type of communicator/ cables/ connectors for configurations;</p> <p>Any Special tools required for maintenance like special type of Allen Key etc.</p>



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1. Reference has been made in this specification to the latest edition (edition enforce at the time of issue of enquiry) of the following codes, standards and specifications.
2. The Pig Signaler shall be capable of detecting all type of pigging devices as indicated below:

Pig Material	Carbon Steel, Steel and Plastic
Pig Length	Need to follow current industry practice to accommodate all types of tools
Pig Diameter (OD)	90% - 100% of Pipeline ID
Pig Velocity (max.)	6 m/s

3. The Pig Signaller shall be clamped to the external surface of the pipe or the scraper trap's major & minor barrel through which the pig passes.
4. Documentation (Hard copies / soft copies etc.) to be submitted by Manufacturer is summarized below

Manufacturer shall submit the following documents (in English only)

- a) General arrangement drawings with overall dimensions and cross-sectional drawings.
- b) Power consumption details.
- c) Sectional arrangement drawings showing all parts with reference numbers and material specification including mounting details of pig signallers on the pipeline.
- d) Cable connection details and cable specification.
- e) Test Certificates.
- f) Manual for installation, erection instructions, maintenance and operation instructions.
- g) Manufacturer shall provide standard installation drawing for mounting of sensor on pipe, which should indicate the welding details of the support brackets to the pipe.