

→ Water  
 → SANSE - 99.75%

→  
 → empme



# Eco Engineers

AN ISO 9001 : 2015  
 Pollution Control Solutions

Technical Association of Empanelled Agency

Sim required  
 cap of 1.5 to 2 GB per d  
 consumption

AL ALUMINIUM LIMITED  
 wadi, Dist: Alwar (Rajasthan)

Kind Attn: Mr. Giriraj Sharma,

Subject: - Quotation for supply & installation of Piezometer and Electromagnetic Water Flow Meter with Telemetry. RND make

Dear Sir,

In reference to the above mentioned subject, we are herewith pleased to forward you our techno-commercial offer for your kind perusal and necessary action please.

No	SERVICE DETAILS	Rate (Per unit)	Unit	Amount (Rs.)
1.	Supply of Digital Water Level Recorder With upto 100 mtr cable with installation.	55,000/-	Incl sensor	55,000/-
2.	Injection well drilling up to 100 mtr. depth with 8" dia.	65,000/-	(1)	65,000/- (Extra drilling 750/- per mtr.)
3.	UPVC Casing pipes 6" dia (IS marked) with Gravel packing (Crusher Ballast).	600/-	100	60,000/-
4.	Supply & Installation of Electromagnetic Water Flow Meter with Telemetry.	55,000/-	1	55,000/-
5.	Online data Hosting at Manufacturer server (Electromagnetic Flow Meter).	20,000/-	1	20,000/-
Total				2,55,000/-
GST @18%				45,900/-
G. Total				3,00,900/-

Life  
15 years

Creation  
Pass 10000000  
Included  
10 SL NO  
3

Mr. V  
Mr. V  
Mr. V

Note: - All the required statutory permission will be taken by the client.

Time Schedule

The work completion will be within 2 weeks from the date of commencement of work.

Site specific arrangement to be made by the client

- Electric Power supply arrangement to Piezometer. ← single phase
- Provision of power supply to be provided within the panel (Upper Right side corner).
- Internet connection point.

Terms of Payment

- > 50% advance against supply of Electromagnetic Water Flow Meter & Piezometer.
- > 50% on successful installation.

CHECK LIST  
Rate as above  
DISCOUNT  
PRICE BASIS : FOR BHIWADI  
FOR-JOB  
INCL ✓ EXTRA  
GST: 12% Bctng  
15 days  
7 days credit  
one year

M/s. Eco Engineers

- ~~Remarks~~ (1) SLNO: 2 - Injection well drilling upto 100 mt-2s depth with 8" dia, ~~cap and~~ @ Rs. 65,000/- for 100mt-2s considering Rs. 650/- Per mt-2. Extra drilling above 100mt-2s will be Rs. 750/- Per mt-2. Payment will be released at actual drilling done. Less 5% on per meter.
- (2) UPVC casing pipe - 6" dia (it's threaded) 6 lay pressure (with gravel packing, civil platform required for meter stand fixing etc) @ Rs. 600/- Per mt-2, payment will be released accordingly. Less: 5% on per meter.
- (3) on-line ~~meter~~ data hosting at manufacturer's server (@ flow meter). @ Rs. 20,000/- Less 5% ~~on~~ discount.
- (4) Dedicated postpaid sim card of Airtel only required with 1.5 to 2 GB per day.

Sumo  
24/03/23



# Level & Flow Industrial Automation (OPC) Pvt. Ltd.

First Floor, Space No- 4B, DSIDC Work Centre,  
Jawalapuri, New Delhi- 110087

Email: levelflowinfo@gmail.com, sales@levelandflow.in

Website: www.levelinflow.com, www.levelandflow.in

Mobile no.: +91-9990423266, +91-8448557369, +91-9990422266

GSTIN NO.: 07AADCL4644B1ZU  
CIN No.: U51909DL2017OPC326622

Ref.: LF / 22-23 / 535, Dt. : 22.03.2023

M/s.: Jindal Aluminium Limited  
Bhiwadi  
Email : purchase.bhiwadi@jindalaluminium.com

KA : Mr. Asst. Manager Purchase ( 09611195368)  
Subject : Offer for the Instruments ( Enq No.: EN230304174)

Dear Sir,  
We appreciate your enquiry and are pleased to quote herewith:

S.N.	Description	Hsn Code	Qty.	Unit Price (Rs.)	Total Price (Rs.)
1	<b>Submersible Level Transmitter - 1No.</b>  Model : LFT1 Make : LFIA Application : Water (clean water) Temp. / Pressure : Amb. / Atm. Mounting : Top Cable hanging Type : Submersible Sensor : SS316 Acc. : +/- 0.25% of FS Operating supply : 24 V DC Output signal : 4 - 20 mA, 2 wire Sensor protection : IP68 Indication range : 100 m Cable length : 200 m With GPRS Modem & 1 Year Server Cost Included	9026	1	1,05,000.00 <i>1,00,000</i>	95,000.00 <i>Rs. 74,000</i>
2	<b>Magnetic Flow Meter - Two part Remote version</b>  Model no. : LF-MF-R Make : LFIA Application : Water (Conductive media) Temperature : Amb. Pressure : Atm. Version : Two part, remote type Display type : Wall mounted remote type LCD display unit, with simultaneous flow rate & totalizer. Protection : IP68 for flow tube Accuracy : 0.5% FS Cable : 10 m Coil Housing MOC : MS Display Panel : CMRI Approved Electrodes : SS 316 Connection : Flanges - C.S Power Supply : 230 V AC Output : 4-20 mA Liner : PTFE With GPRS Modem & 1 Year Server Cost Included		1	77,000.00	77,000.00

*Ground water purpose*

*Data will*

CHECK LIST

DISCOUNTED *Rate as above*

PRICE BASIS : FOR BHIWADI *FOR TALBU*

P & F *INCL. EXTRA*

GST/GST *IGST 18% Extra*

DELIVERY : *20 days*

PAYMENT : *7 days from the date of order*

WARRANTY : *one year*

CHECKED BY : *Rajpota*

Exclusions: Wire, cable, support, fittings, panel, hardware, spares, Onsite warranty, installation, commissioning, etc.

*discussed with Mr. Chashank and agreed above*

*22/03/23*



GSTIN NO.:07AADCL4644B1ZU  
 CIN No.:U51909DL2017OPC326622

### Level & Flow Industrial Automation (OPC) Pvt. Ltd.

First Floor, Space No- 4B, DSIDC Work Centre,  
 Jawaharpuri, New Delhi- 110087

Email:levelflowinfo@gmail.com, sales@levelandflow.in

Website: www.levelnflow.com, www.levelandflow.in

Mobile no.:+91-9990423266, +91-8448557369, +91-9990422266

**Terms & Conditions:**

- Delivery : ~~Within 4 Weeks~~ from the date of PO with payment. *20 days*
- Price Basis : ~~Ex-Work~~ *FOR - JALBWS*
- Packing : Included
- Sales Taxes : Extra - (GST @ 18% present applicable rates)
- Freight : ~~To Bay~~ through your transporter. *7 days credit*
- Payment Terms : ~~100% advance~~ along with PO.
- Transit Insurance : To be borne by purchaser.
- Offer validity : 15 days & thereafter subject to our confirmation.

Regards,

We hope, you will find our offer competitive and look forward to your purchase order.

Thanking You,

Yours Faithfully,

For Level & Flow Industrial Automation (OPC) Pvt. Ltd.

Sushank Kr. Verma  
 +91-9990423266

→ civil including cabling and fabricated stand with civil platform is in - JAL scope

→ Any item required for above meters like casing pipe, electrical cables and other accessories are in JAL scope.

→ ~~Fixing~~ meters fixing - JAL scope

*(Signature)*  
 30/03/23.

**LFIA**  
Level & Flow Industrial Automation

ISO  
9001:2015  
CERTIFIED

# Magnetic Flow Meter



**LF-MF**

Email: [info@levelinflow.com](mailto:info@levelinflow.com)  
Website: [www.levelinflow.com](http://www.levelinflow.com)  
Contact No. : +91-8448557369

**Level & Flow Industrial  
Automation (OPC) Pvt. Ltd.**

Bhavya Gold Plaza  
207, S/F, Gall no. 6-7, Beasdonpura  
Karol Bagh, New Delhi - 110005

# DESCRIPTION

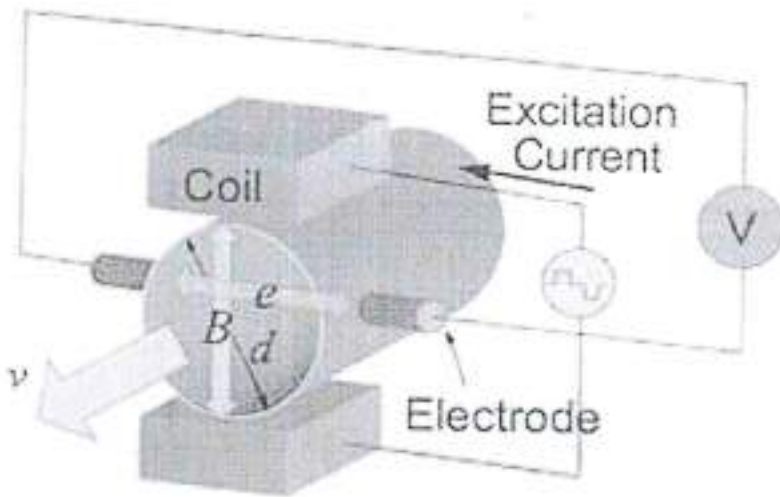
Electromagnetic flow meter is based on Faraday's law of electromagnetism to measure the flow of conductive liquids. This flow meter micro-processor based processing electronic unit. LCD unit to display flow rate & totalized.



INTEGRAL VERSION      REMOTE DISPLAY

## PRINCIPLE OF MAGNETIC FLOW METER BASED ON FARADAY LAW.

Magnetic flow meters works based on faraday's law of electromagnetic induction. According to this principle, when a conductive medium passes through a magnetic field  $B$ , a voltage  $E$  is generated which is proportional to the velocity  $V$  of the medium, the density of the magnetic field and the length of the conductor.



$$B \propto N \cdot I_{ex}$$

$B$ : Magnetic Flux Density

$N$ : Number of Coil Turns

$I_{ex}$ : Excitation Current

$$e = k \cdot B \cdot v \cdot d$$

$e$ : Electromotive Force

$k$ : Constant

$v$ : Mean Flow Velocity

$d$ : Internal Diameter

In a magnetic flow meter, a current is applied to wire coils mounted within or outside the meter body to generate a magnetic fields. The liquid flowing through the pipe acts as the conductor and this induces a voltage which is proportional to the average flow velocity. This voltage is detected by sensing electrodes mounted in the mag-flow meter body and sent to a transmitter which calculates the volumetric flow rate based in the pipe dimensions.

## FARADAY'S FORMULA

E is proportional to  $V \times B \times D$  where:

- E = the voltage generated in a conductor
- V = the velocity of the conductor
- B = the magnetic field strength
- D = the length of the conductor



To apply this principle to flow measurement with a magnetic flow meter, it is necessary first to state that the fluid being measured must be electrically conductive for the Faraday principle to apply. As applied to the design of magnetic flow meters, Faraday's Law indicates that signal voltage (E) is dependent on the average liquid velocity (V) the magnetic field strength (B) and the length of the conductor (D) (which in this instance is the distance between the electrodes)

**Feature:** Integral or remote transmitter  
 High long term stability and reliability  
 Coil assembly in hermetically sealed welded construction

**Application:** Waste Water, Slurry, Raw Water, Sewage, Wood Pulp, chemicals, Food processing, fertilizer, sugar, beverages, pharmaceutical Industries,.

## ADVANTAGES OF ELECTRONIC FLOW METER

The Obstruction to the flow is almost nil and therefore this type of meters can be used for measuring suspensions, including mud, sewage, pulp, etc.

They are not very much affected by upstream flow disturbances.

These meters can be used as bidirectional meters.

They are practically unaffected by variation in density, viscosity, pressure & temperature.

## DISADVANTAGES OF ELECTRONIC FLOW METER

These meters can be used only for conductive liquids.

## HOW TO USE MAGNETIC FLOW METER

Magnetic flow meters measure the velocity of conductive liquids in pipes, such as water, acids, caustic, and slurries. Magnetic flow meters can measure properly when the electrical conductivity of the liquid is greater than approximately 20 S/cm. be careful because using magnetic flow meters on fluids with low conductivity, such as boiler feed water, or hydrocarbons, can cause the flow meter to turn off and measure zero flow.

This flow meter does not obstruct flow, so it can be applied to clean, dirty, corrosive liquids. Magnetic flow meters can be applied to the flow of liquids that are conductive, so hydrocarbons and gases cannot be measured with this technology due to their non-conductive nature and gaseous state.

Magnetic flow meters do not required much upstream and downstream straight run so they can be installed in relatively short meter runs. Magnetic flow meters typically require 3-5 diameters if upstream straight run and 0-3 diameters of downstream straight run measured from the plane of the magnetic flow meter electrode.

Applications for dirty liquids are found in the water, wastewater, mining, power, pulp and paper, chemical industries. Waste and wastewater applications include custody transfer of liquids in force mains between water /waste water districts. Magnetic flow meters are used in water treatment plants to measure treated and untreated sewage, process water, water and chemical.

With proper attention to materials of construction, the flow of highly corrosive liquids and slurries can be measured. Corrosive liquid applications are commonly found in the chemical industry process, and in chemical feed systems used in most industries. Slurry applications are commonly found in the mining, pulp and paper and waste water industries.

Magnetic flow meters are often used where the liquid is fed using gravity. Be sure that the orientation of the flow meter is such that the flow meter is completely filled with liquid. Failure to ensure that the flow meter is completely filled with liquid can significantly affect the flow measurement.



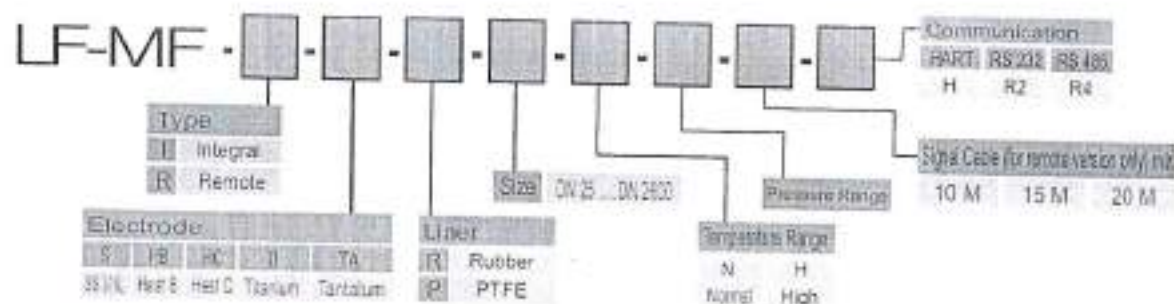
**TECHNICAL SPECIFICATION**

Model	LF-MF
LCD Display	16X2 (Two Line) Backlit LCD
Output	4-20 mA
Working Temp.	0-180° deg. Casper model selection
Power Supply	220 V AC, 50 Hz
Protection	IP 65 (IP - 68 on request)
Liner	Rubber / PTFE
Electrodes	SS 316L / Hastelloy C / Ta / Ti
Accuracy	0.3% - 0.5%
Flow Tube	SS 316
Line Size	DN 10 to DN 1000
Media Conductivity	10 uS/cm
Media Temp.	0-180 C with remote transmitter 0-120 C with integral transmitter
Amb. Temp.	0-50 C
End Connection	CS / SS 304 / SS 316 / SS 316L
Coil Housing	CS / SS
Transmitter	Cast Aluminium
Flange / End. Conn..	ANSI / DIN / TRI - CLMP
Cable Gland	½" NPT (F)
Communication Port (optional)	Rs 232 / RS 485 MODBUS RTU Protocol
LED Display	4 Digit Indication for Flow Rate and 8 Digit Indication for Totaliser Programming from Front Keyboard for Engineering Units

# FLOW RATE

Line Size ( mm )	Flow Range (m <sup>3</sup> /hr) at 0.3 - 10 m/s	
10	0.06	2.00
15	0.20	6.40
20	0.34	11.3
25	0.53	17.7
40	1.40	45.2
50	2.00	70.7
65	3.58	119
80	5.43	181
100	8.48	282
150	19.08	636
200	33.9	1131
250	53.0	1767
300	76.3	2544
350	103.9	3463
400	135.7	4525
450	171.7	5726
500	212.0	7069
600	305	10179
700	415	13854
800	542	18095
900	687	22902
1000	848	28274

# MODEL SELECTION



\* All models may differ in looks & all specifications may not be part of every version.  
 \* Specification may vary as per different model selected. Some features may not be there in model selected.

# ENGINEERS & CONSULTANTS

Head Off : # A-023 ASHIANA GREEN BHIWADI M: +91 9873669265 ,9079374236

E-mail: [engineersconsultant73@gmail.com](mailto:engineersconsultant73@gmail.com), [vijaygupta70@gmail.com](mailto:vijaygupta70@gmail.com)

## COMPETENT PERSON | CONSULTANTS | AUDITORS

Approved by Chief Inspector of Factories for testing & Certification of Pressure Vessels/Plant, Lifting Machines/Tools/Tackles, Lifts/ Hoists, Dangerous Machinery, Dust Extraction system under section 28, 29, 21(2), 31 & 87 of Factories Act, Chartered Engineer, BEE Certified Energy Auditor, NPC Certified water Auditor, Lead Auditor ISO : 45001 , 50001 , 14001 RLI Certified Safety Auditor & Certified from Rajasthan Electricity Board

### QUOTATION

Ref- Jindal/22-23/14/10/2022 - REVISED (20.03.2023)

		✓		
1.	<p><u>Telemetric Piezometer along with Data Server and Connectivity</u> ✓</p> <p><b>Descriptions: -</b></p> <ul style="list-style-type: none"> <li>Online Ground water level recorder.</li> <li>Continuous Data Logging Facility.</li> <li>Data transfer to server available along with <u>200 m cable.</u></li> </ul> <p>Indigenous pressure transducer (sensor) with capability of measuring till <u>100 meters</u> depth.</p> <ul style="list-style-type: none"> <li>Factory-calibrated sensor.</li> <li>Metal enclosure</li> <li>Data can be uploaded on Cloud Server ✓</li> </ul> <p><b>Specifications: -</b></p> <ul style="list-style-type: none"> <li>Accuracy: <u>0.25 % F.S</u></li> <li>Compensated temperature: <u>-20°C to +85°C</u></li> <li>Operating temperature: <u>-40°C to +125°C</u></li> <li>Current consumption: <u>5mA</u></li> <li>Wetted Material: <u>17-4PH or 316L</u></li> <li>Dielectric strength: <u>2mA @500VAC, 1min</u></li> <li>Display: <u>16x2 LCD display</u></li> <li>Data Output: <u>Microsoft Excel format</u></li> <li>Clock: <u>Real time internal clock</u></li> <li>AI Cable Length: <u>100m</u></li> <li>Input Power: <u>220V 50Hz AC</u></li> <li>Power Adapter output: <u>12V, 1A DC</u></li> <li>Inbuilt Battery</li> </ul>	95,000	01	95,000

**CHECK LIST**

DISCOUNT: 5% on above Rs

PRICE BASIS: FOR BHIWADI FOR-JALAI

P & F: INCL ✓ EXTRA —

GST/IGST: GST: 18% Extra

DELIVERY: 3 weeks

PAYMENT: 100% within 7 days

GC/WG/TC: Write away complete

VALIDITY: —

CHECKED BY: Rajropal

→ Remarks: Dedicated Post paid Sim card required separately capacity of 1.5 GB to 2 GB per day.

discussed with Mr. Vinay and agreed above

Rajropal

# ENGINEERS & CONSULTANTS

Head Off : # A-023 ASHIANA GREEN BHIWADI M: +91 9873669265 ,9079374236

E-mail: [engineersconsultant73@gmail.com](mailto:engineersconsultant73@gmail.com), [vijaygupta70@gmail.com](mailto:vijaygupta70@gmail.com)

## COMPETENT PERSON | CONSULTANTS | AUDITORS

Approved by Chief Inspector of Factories for testing & Certification of Pressure Vessels/Plant/Lifting Machines/Tools/Tackles/Lifts/Hoists, Dangerous Machinery, Dust Extraction system under section 28, 29, 21(2), 31 & 87 of Factories Act, Chartered Engineer, BEE Certified Energy Auditor, NPC Certified water Auditor, Lead Auditor ISO : 45001 , 50001 , 14001  
 RLI Certified Safety Auditor & Certified from Rajasthan Electricity Board

2.	<b>Digital Ultrasonic Water Flow Meter with telemetric</b> <b>Description:</b> <ul style="list-style-type: none"> <li>• Electromagnetic Flow Meter</li> <li>• Size: - 2 inch</li> <li>• PTFE Lining</li> <li>• IP -68</li> <li>• IIA, IIB, CMRI Certified</li> <li>• Telemetric charge</li> <li>• Installation charges</li>   <li>• RTU Unit For Water Flow Meter</li> <li>• <u>Inbuilt Battery</u></li> </ul>	72,000	01	72,000
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NOTE -

- 1. All Mechanical & Field Work is in Client Scope
- 2. All Device SIM is in Client Scope
- 3. After one year Server Data Charges / device - Rs/- 2000
- 4. With NABL certificate - Rs/- 2500 / Flow meter is Extra
- 5. Company Test certificate free of cost

→ civil work, drilling, cabling, civil platform, Me frame is in job scope.

*(Signature)*

### CHECK LIST

DISCOUNT : .....

PRICE BASIS : FOR BHIWADI .....

P & F : INCL...../EXTRA.....

GST/IGST : .....

DELIVERY : .....

PAYMENT : .....

GC/WC/TC : .....

VALIDITY : .....

CHECKED BY : .....