



WE DELIVER  
RELIABLE MASS FLOW SOLUTIONS  
FOR STEAM



### Eletta started business in 1947

Eletta Flow AB is a Swedish company founded in 1947 with a vision to provide innovative flow measurement solutions for various process industries. Since then, we have been at the forefront of the industry, independently pushing the boundaries and setting new standards.

Eletta's flowmeters are very well known for their reliability in critical applications. Some have worked perfectly and are still in use for more than 50 years. Planned obsolescence is a non-existent concept at Eletta.

At Eletta, we are passionate about what we do and take pride in delivering high-quality products and solutions to our customers. We ensure that our solutions meet the highest standards of quality and reliability.

Eletta prides itself on always striving for the best solutions no matter what your process requirements are. We believe in close co-operation and personal service.

#### Eletta's keywords

- Quality
- Sustainability
- Reliability
- Long service life
- Affordable
- Easy to install and mount

#### Customer support

- Responsive
- Delivery on time
- Quick, simple and clear answers
- Customized solutions
- Technical support and advice
- Identification of problems
- Focus on solutions





Eletta's first flow switch was manufactured in 1947

Eletta manufactures flow meters and flow switches that are adapted to cope with a variety of media and application requirements. Eletta Flow is certified according to ISO 9001 and ISO 14001.

# Eletta – Your partner in steam measurement

## Optimize your steam processes with our outstanding product Eletta Steam

We are proud to offer our high quality integrated solution "Eletta Steam" specifically designed to meet the needs of industrial companies working with steam. Our innovative technology and expertise in the field will help you to optimize your steam processes for maximum efficiency and reliability.

Our steam solution can be used to measure the amount of steam in your plant. This can be used to monitor the results of energy saving programs and to compare efficiency of a plant unit. The steam can then be costed as energy at any stage of the production process, so that the cost of individual product lines can be calculated.

## Why should we measure steam?

Measuring how much steam we use is important because it helps us make the best use of it. Steam is essential to run machines and plants efficiently. By knowing how much steam we use, we can also understand how much it costs to use it. This is important to ensure that our plants and buildings are operating efficiently and that we are not wasting energy.

The main benefits of using steam flow metering include:

- Plant efficiency
- Energy savings
- Process control

## Why is our Eletta Steam flow meter important for your steam process?

Steam is a key component in many industrial processes, and accurate monitoring and measurement of steam flows is essential to ensure efficient and safe operation.

Our flow meters give you:

### ■ **Simplicity:**

Instrument will be delivered as a complete Unit, ready to be installed Mechanically and to be power Supplied.

### ■ **Accuracy:**

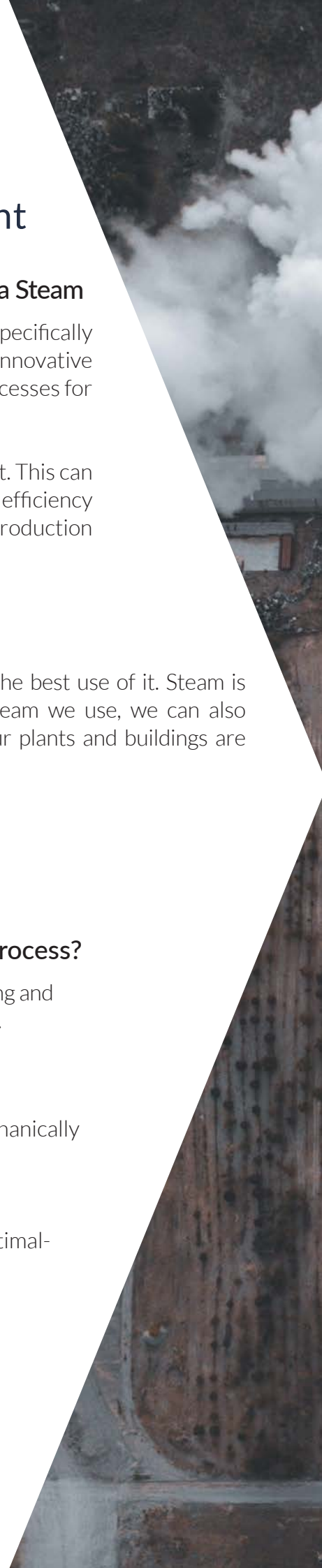
Exact measurements of steam flows to ensure your process is working optimally. Measure steam consumption and optimize your processes.

### ■ **Reliability:**

Trusted monitoring to prevent downtime and minimize the risk of production stops.

### ■ **Performance:**

Optimized use of steam to reduce energy consumption and therefore costs.







RELIABLE  
HIGH QUALITY  
FLOW MONITORING

## Base Unit Steam

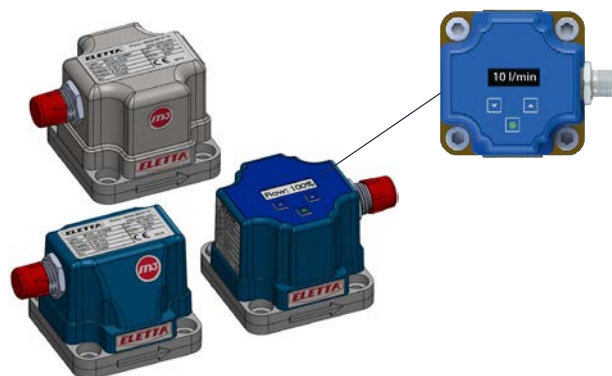


### Base Unit Steam

The base unit for steam is an upgraded version of a well-proven and documented DP Flow measurement that we have supplied for over 75 years. The unit is pre-assembled with all parts from production. It is pressure tested as standard.

- Connection block for instruments and pipes from Flow element/pipe section.
- Built in Air vents
- Condensate pots
- Internal piping
- Plate for easy mounting of the unit.

## Control Unit



### Control Unit

The M series is one of the smallest dp flow meters on the market, measuring most fluids with automatic compensation for pressure and temperature changes. The M3 series is an accurate flowmeter, outstanding for steam.

- **Housing:** plastic or stainless steel
- **Optional:** loop-powered OLED 128\*32 pixels display
- **Measuring range:** 1:10 turndown
- **IP class:** IP67
- **Pressure classes:** 10, 25, 50 bar



## User Interface

## Pipe sections



### User Interface

Eletta's new flow computer for calculating mass flow for steam. Delivered fully configured based on saturated steam operating conditions. Changes on operating conditions will be compensated by the User Interface software giving a calculated mass flow measurement. Simple connection to power and the control unit. USB port for transferring log files and updating software.

- Touch-screen Display
- Historical Trends & Graphs
- Remote access from Smart Phone
- Available in 5 Sizes
- e-mail function

### Pipe Section GSS

### Pipe Section FSS

The Pipe Sections in stainless steel 316L are available in different dimensions:

- FSS: DN15-DN500 for DIN max PN16  
DN15-DN500 1/2"-18" for ANSI max 150 lbs
- GSS: DN15-25 with BSP or NPT threads

A photograph of an industrial building with a brick facade and a tall, dark smokestack. The sky is blue with some white clouds. The building has several windows and a blue metal structure in the foreground.

Our products have been  
designed to cope with...

**High temperatures**

**High demands**

**Harsh environments**



# Approvals and certificates worldwide.

Tests have been made on our products resulting in reliable and stable products. Eletta offers a wide range of approvals and certificates worldwide...



**intertek**  
Your Quality Assured

## CERTIFICATE OF REGISTRATION

This is to certify that the management system of:  
**Eletta Flow AB**

Main site: Mälarsvågen 3, SE-341 71 Segehorp, Sweden  
has been registered by Intertek as conforming to the requirements of  
**ISO 9001:2015**  
**ISO 14001:2015**

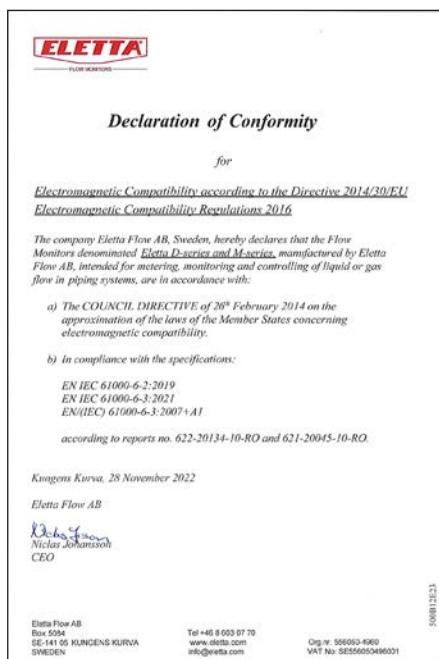
The management system is applicable to:  
Development, manufacturing, marketing and services of instruments and sensors for improvement of industrial processes.

**Intertek**  
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Certificate Number:  
11805 (ISO 9001)  
1416211 (ISO 14001)  
Initial Certification Date:  
20 May 1996 (ISO 9001)  
3 June 2002 (ISO 14001)  
Date of Certification Decision:  
20 May 2020  
Issuing Date:  
27 May 2020  
Valid Until:  
2 June 2023

**Carl-Johan von Plomgren**  
MD, Business Assurance Nordics  
Intertek Certification AB  
P.O. Box 1103, SE-164 22 Kista, Sweden

5900112123



**ELETTA**  
FLOW MONITORS

### Declaration of Conformity

for  
Electromagnetic Compatibility according to the Directive 2014/30/EU  
Electromagnetic Compatibility Regulations 2016

The company Eletta Flow AB, Sweden, hereby declares that the Flow Monitors denominated *Eletta D-series and M-series*, manufactured by Eletta Flow AB, intended for metering, monitoring and controlling of liquid or gas flow in piping systems, are in accordance with:

a) The COUNCIL DIRECTIVE of 26<sup>th</sup> February 2014 on the approximation of the laws of the Member States concerning electromagnetic compatibility.

b) In compliance with the specifications:  
EN IEC 61000-6-2:2019  
EN IEC 61000-6-3:2021  
EN(IEC) 61000-6-3:2007+A1

according to reports no. 622-20134-10-RO and 621-20045-10-RO.

Kungäns Kurva, 28 November 2022

Eletta Flow AB  
*Niclas Johansson*  
CEO

Eletta Flow AB  
Box 5054  
SE-141 05 KUNGÄNS KURVA  
SWEDEN

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info@eletta.com

Org. nr. 556093-4960  
VAT No. SE556093496001

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**Achilles**

## Certificate of Membership

This is to certify that  
**Eletta Flow AB**  
are now fully registered as a member on the  
Achilles Network

Org. nr. 556093-4960  
Registration Date: 27 Aug 2023

*Niclas Johansson*  
CEO  
Eletta Flow AB

**Achilles**  
Network  
MEMBER

## REFERENCES

Around the world you have access to our unique know-how and product range. Proximity to our customers is crucial for effective solutions. To meet demand, we have a worldwide presence through our resellers and sales specialists...

### References in Europe

- ALBA - Spain
- ANKA - Germany
- BESSY - Germany
- CEA Saclay - France
- CERN - Switzerland
- DIAMOND LIGHT - United Kingdom
- DESY - Germany
- DLS - United Kingdom
- ESRF - France
- ESS - Sweden
- FAIR - Germany
- GANIL - France
- Garching - Germany
- Greifswald, Germany
- GSI - Germany
- IKP - Germany
- JYVÄSKYLA Lab - Finland
- Forschungszentrum Jülich - Germany
- KVI - The Netherlands
- MEDAUSTRON - Austria
- PSI - Switzerland
- Synchrotron Soleil - France
- SVEDBERG Lab - Sweden
- Trieste Scpa - Italy
- University of Jyväskylä Accelerator lab - Finland

### References in Asia and Africa

- NSRRC - Taiwan
- BERG - China
- iThemba Labs - South Africa
- VECC, Variable Energy Cyclotron Centre - India.

### References in America

- National Argonne Laboratory - USA
- CLS - Canada



## CHALLENGE

The customer identified that their existing steam flow management system was too large and complicated, leading to increased operational costs. They required an updated solution to easily and accurately monitor and control their process steam flow.

### Project Goals

- Achieve precise steam flow measurement
- Enhance energy efficiency
- Reduce operational costs
- Improve overall system reliability
- Solution

### Challenges to Overcome

Integration with the existing system without causing significant downtime.

Ensuring accurate calibration of the ELETTA STEAM system.

### Mitigation Strategies

Scheduled installation during low-usage periods to minimize impact. Eletta factory training to ensure precise calibration and seamless integration and operation.

## RESULTS

### Accuracy Improvement:

Achieved a 15% increase in measurement accuracy.

### Energy Savings:

Reduced energy consumption by 10% within the first three months.

### Cost Savings:

Realized a 12% reduction in operational costs annually.

### Customer Feedback:

"The new steam flow meter system has significantly improved our operational efficiency with its accurate measurements and ease of operation thus providing precise control over our steam usage." – , Operations Manager at Eco-Zinder.

The customer is very satisfied with the ELETTA STEAM solution. They find it small, easy to install, and accurate. The customer uses the User Interface only for visualizing values. They use just the 4-20mA signal from the M-series (Control Unit) to the control/measurement they have. They have Profibus as communication to the measurement system.

## CUSTOMER BACKGROUND

The customer produces chemicals, including copper and zinc concentrates, which are produced in large quantities. Eco-Zinder specializes in providing sustainable environmental solutions across various industries. They use steam for drying chemicals. They use three steam generators that generate about 10,000 kg/h of steam.

Eletta's steam meter is used to control the amount of steam they apply to the chemicals. This case study outlines the challenges, implementation process, and significant improvements realized through this upgrade.

## SOLUTION

### Implementation-Process

#### Planning and Design:

Conducted a thorough assessment of the existing system and designed a tailored installation plan.

#### Procurement:

Acquired the necessary equipment and materials.

#### Installation:

Installed the new steam flow meter with minimal disruption to operations.

#### Testing and Calibration:

Conducted rigorous testing and calibration to ensure optimal performance.

#### Training:

Provided comprehensive training to Eco-Zinder's staff on the operation and maintenance of the new system.

## SUMMARY

### Comparison with Previous State

#### Before:

Large and bulky Steam Instruments that were very complicated to operate leading to down time.

#### After:

Accurate measurements, reduced size and easy to operate and maintain.

#### Key Takeaways:

Investing in advanced steam flow measurement technology yields substantial efficiency and cost benefits.

Proper planning and expert installation are critical to the success of such upgrades.

The installation of a the ELETTA STEAM flow meter system has successfully addressed their operational and installation challenges, leading to improved efficiency, energy savings, and cost reductions.



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