

# The V-series Eletta Flow Monitor

with one adjustable  
switchpoint



**Eletta flow**

when you want to know



### GL series

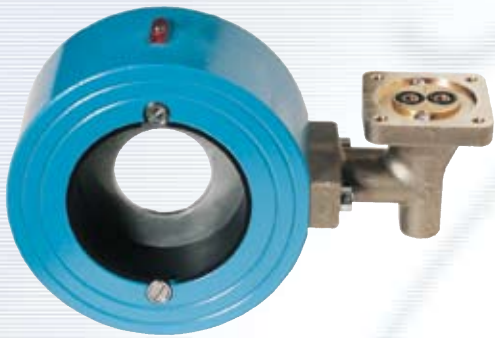
The Pipe Section is constructed of copper alloy and fitted with BSP/ NPT threads from 15 mm to 40 mm (1/2"–1 1/2").

### Benefits of the V-series

- Rugged and sturdy design
- Uses proven differential pressure technique
- Economical alternative to more expensive flow meters
- Liquids and gases can be monitored
- Dependable and economical
- One SPDT micro switch for adjustable flow alarm
- Insensitive to magnetic fields

### Important applications and product features

- Monitoring flows in cooling and lubricating circuits
- Antifreeze protection of heat pump systems
- Dry out protection
- Starting and stopping pump motors
- Shows flow without external power
- Low cost solution for difficult flow applications
- Interchangeable control units to fit all pipe sections
- Not affected by static pressure



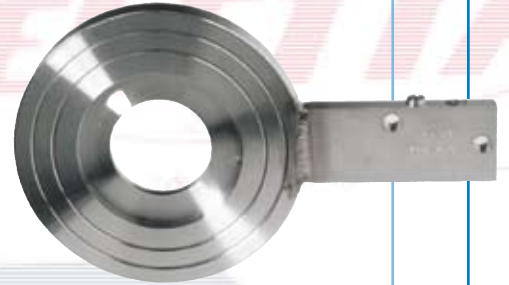
### FA series

The Pipe Section has a flanged (wafer) process pipe connection and the material is bronze from 15 mm up to size 40 mm (1/2"–1 1/2") and epoxy polyester coated cast iron in sizes 50 mm to 400 mm (2"–16").



### GSS series

The Pipe Section is made from Stainless Steel and comes with BSP/NPT threads in size 15, 20 and 25 mm (1/2", 3/4" and 1").



### FSS series

The Pipe Section comes in stainless steel and has the same "fit between flanges" (wafer) execution as the -FA series and process connections from 15 mm to 500 mm (1/2"–20").

## The V-series Flow Monitor

**The Eletta Flow Monitor's function is based on the proven and dependable differential pressure principle. This is perhaps the oldest and most widely used principle for flow metering, mainly because of its simplicity and its relatively low cost.**

The Eletta V-series Flow Monitor is used to control flow of liquids and gases in pipes from 15 mm to 500 mm. Through the adjustable SPDT micro switch it is possible to set one low or high flow alarm to protect expensive equipment in various piping systems. The switching point is highly repeatable, within <2%. The Flow Monitor is insensitive to surrounding magnetic fields and it combines the long-standing proven mechanical function with outstanding reliability. Together with an exceptionally sturdy and robust design, this makes it extremely well suited for difficult environments.

The V-series comes in two measuring ratios designated **V1** and **V15**, which means that the **V1** has a flow measuring span of 1:2 and the **V15** has a span of 1:5.

Like all Eletta Flow Monitors the V-series can monitor both liquids and gases.

## Modular design

All the Eletta Flow Monitors including the V-series can be fitted to any of the various Eletta Flow Monitor Pipe Sections to suit your application.

The Instrument consists of two parts mainly, i.e. the Pipe Section and the Control Unit. The Pipe Section is the part that is to be mounted in the process pipe and the Control Unit is mounted directly (standard) or remote to the Pipe Section.

As the Control Unit is pre-calibrated before leaving our production facilities, you can change pipe sections to fit other dimensions and materials than originally ordered without recalibration.

The Control Unit contains the micro switch which can be set to trip anywhere within the measuring range.

The Pipe Sections come in Copper alloy, Stainless Steel, Cast Iron and sizes from DN 15/PN16 (ANSI 1/2"/150 lbs) up to DN 500/PN16 (ANSI 20"/150 lbs). The V-series Control Unit can also be used to supplement an already installed Eletta Flow Monitor such as the S-, A- or R-series even after the installation.

## Specifications V-series



|                                 |   |
|---------------------------------|---|
| <b>Flow range:</b>              | 0,4 – 25 000 l/min (liquid)   |
| <b>Min. flow:</b>               | V1: 50% of the full scale flow range<br>V15: 20% of the full scale flow range   |
| <b>Wetted materials:</b>        | Copper alloy, epoxy painted cast iron.<br>Seaworthy stainless steel 904L,<br>stainless steel, 316   |
| <b>Rubber parts:</b>            | Nitrile (HNBR), EPDM and Fluorinated rubber (FPM)   |
| <b>Max. pressure:</b>           | 16 bar (232 PSI)  |
| <b>Standards:</b>               | PN 16/ANSI 150 lbs  |
| <b>Max. temp. Control Unit:</b> | 90°C standard, 120°C optional.  |
| <b>Max. temp. Pipe Section:</b> | -GL and -FA: 120°C (248°F)<br>-GSS, -FSS: 250°C (482°F)   |
| <b>Enclosure:</b>               | IP65 (NEMA4)  |
| <b>Process Connection:</b>      | DN 15-40, BSP/NPT thread<br>DN 15-500 DIN/ANSI flange (wafer)   |
| <b>Alarm:</b>                   | V1 and V15 have one (1) micro switch contact,<br>independently adjustable within the ordered Flow range   |
| <b>Micro switch spec:</b>       | Contact surfaces are silver plated as standard.<br>Type: SPDT<br>Hystereses: 10%<br>Rated voltage: 480 VAC/15A<br>Breaking current: 15@125, 250, 480 VAC<br>Resistive load: 2A@30 VDC<br>0,4A@125 VDC<br>0,2A@230 VDC   |
| <b>Repeatability:</b>           | < 2% actual   |
| <b>CE-approvals:</b>            | The Eletta Flow Monitors conforms with the EU directive for low voltage<br>no: 72/23/EEC (EN 60 204-1, Part 1.) and Electromagnetic compatibility<br>according to the directive 89/336/EEC (EN 50081-1 and 50082-2)<br>Complies with applicable parts in PE-Directive 97/23/EG                                  |
| <b>Ex-version:</b>              | The Ex versions of type V1 and V15 are designed to be used in explosive atmos-<br>pheres. Approved acc to the IECEx cert. scheme as an intrinsically safe apparatus<br>acc to IEC 60079-0:2007 IEC 60079-11:21007 and IEC 60079-26:2006.<br>We refer to leaflet V-ex version and V-manual for more information. |

## Eletta Flow Monitors

The name Eletta has become synonymous with flow monitoring in many industries world wide where the Products are appreciated for their sturdy and robust design.

Eletta Flow Monitors are of our own proprietary design and our manufacturing as well as the whole company is certified to ISO 9001 and ISO 14000 quality standards.

We export our Products all over the world and we have Authorized Distributors in most European countries, Australia, South Africa, India, Japan and USA.

## Find out more

In our technical leaflets and manuals you will find full details of the design, pressure drop graphs, measuring ranges and dimensional drawings. We welcome you to our at all time updated web site at [www.eletta.com](http://www.eletta.com) for the most recent and accurate information about Eletta and our Products. At this site you can find most of the documentation on down-loadable files. Whatever your request for information is, our e-mail address: [info@eletta.com](mailto:info@eletta.com) is the fastest way to get in contact with our Customer Support and technical department. Of course, your local Eletta Distributor, whose address you can find in our homepage, can assist you in most cases.

# ELETTA

— FLOW MONITORS —

**Eletta Flow AB**

Box 5084, SE-141 05 Kungens Kurva, Sweden

Tel. +46 8 603 07 70

[info@eletta.com](mailto:info@eletta.com)

[www.eletta.com](http://www.eletta.com)