

# The R-series Eletta Flow Monitor

with analog and  
frequency output



**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 R-series

- Rugged and sturdy design
- Uses proven differential pressure technique
- Economical alternative to more expensive Flow meters
- Liquids and gases can be monitored
- Remote reading of flow through dual signal outputs
- Measures 1:2 and 1:5 flow range with +/- 3% F.S.

### 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
- Can measure both liquids and gases
- Low cost solution for difficult flow applications
- Interchangeable control units to fit all pipe sections
- Measurement 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 ( $\frac{1}{2}$ "– $1\frac{1}{2}$ ") and painted 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 ( $\frac{1}{2}$ ",  $\frac{3}{4}$ " 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 ( $\frac{1}{2}$ "–20").

## The R-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 R-series takes advantage of the Eletta® proprietary robust and sturdy design. It combines the long proven mechanical reliable function with an electronic circuit board providing electrical outputs linear to Flow of liquids or gases. The R-series Flow Monitor is capable to give both a frequency and an analog linear output, representing the flow. The design gives highly repeatable output signals and often excludes the need for using more expensive flow meters. The frequency output is linear to flow between 200-1000 Hz and the analog output is a linear current 4-20 mA.

The Flow Monitor will serve as a flow transmitter due to lack of local indication and must be seen as a complement to our A-series, which has both an analog output and a local bar graph (ask for separate brochure). The R-series comes in two measuring ratios designated **R2** and **R5**, which means that the **R2** has a measuring span of 1:2 and the **R5** has a span of 1:5.

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

## Modular design

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.

All Control Units, including the R-series, can be fitted to any of the various Eletta Flow Monitor Pipe Sections to suit your application.

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.

The Control Unit contains the electrical circuit board which is giving you the Flow information through the dual outputs, 4 - 20 mA and/or 200 - 1000 Hz.

The Pipe Section comes in Copper alloy, Stainless Steel, Cast Iron and sizes from DN 15/PN16 (ANSI  $\frac{1}{2}$ "/150 lbs) up to DN 500/PN16 (ANSI 20"/150 lbs).

The R-series Control Unit can also be used to complement an already installed Eletta Flow Monitor such as the A-, S- or V-series.

## Specifications R-series

<b>Flow range:</b>	0,4 – 25 000 l/min (liquid)
<b>Wetted materials:</b>	Copper alloy, painted cast iron. Seaworthy stainless steel 904L. stainless steel, 316. Chemically Nickel Plated Copper alloy optional
<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>	65°C (150°F)
<b>Max temp. Pipe Section:</b>	-GL and -FA: 120°C (248°F) -GSS, -FSS: 250°C (482°F)
<b>Enclosure:</b>	IP65 (NEMA4)
<b>Process Connection:</b>	DN 15-40, BSP/NPT thread DN 15-500, DIN/ANSI flange (wafer)
<b>Power supply:</b>	24 VDC +/-10%
<b>Outputs:</b>	Isolated analog current 4-20 mA, 1000 ohm, zero-based. Isolated frequency 200-1000 Hz, 0-10 VDC and/or open collector max. 24 VDC
<b>Accuracy:</b>	< +/-3% F.S
<b>Repeatability:</b>	< 2% actual
<b>Current consumption:</b>	max 50 mA
<b>CE-approvals:</b>	The Eletta Flow Monitors conforms with the EC directive for low voltage (LV) no: 2006/95/EC and electromagnetic compatibility (EMC) no: 2004/108/EC. Complies with applicable parts in PE-Directive 97/23/EC.



### 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 14001 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 • Fax. + 46 8 646 10 40

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

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