

The M-series

Eletta Flow Meter

High accuracy DP Flow meter
with programmable outputs



Eletta flow

when you want to know

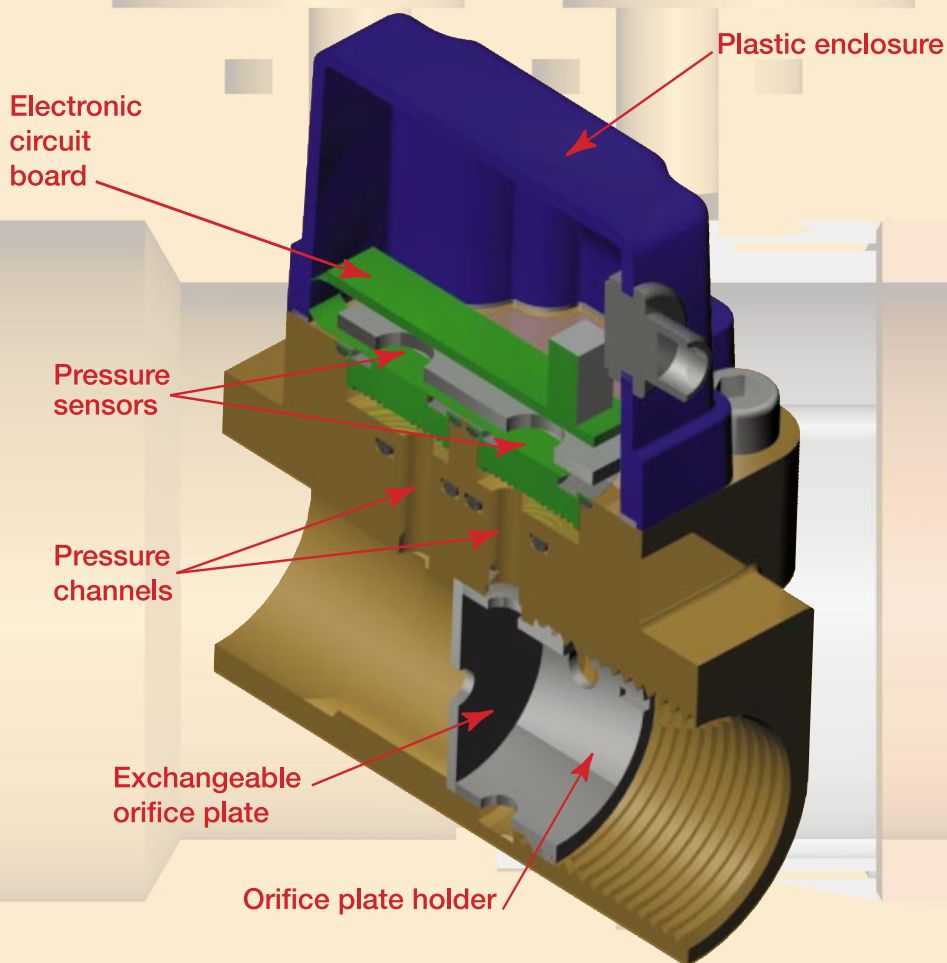
The M-series

Flow Meter

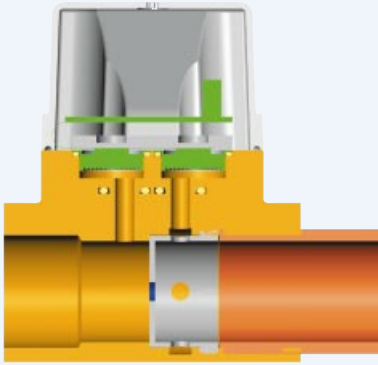
For over 50 years, Eletta Flow in Sweden has been producing robust and reliable Flow Monitors of its own proprietary design. The Products have been exported worldwide and are recognized for their longevity and secure operation in even the toughest industrial environment.

The Eletta Flow Monitors are also known for their simplicity in construction and the fact that they are using the well-documented differential pressure (DP) measuring principle with an exchangeable calibrated orifice plate, expands the user friendliness.

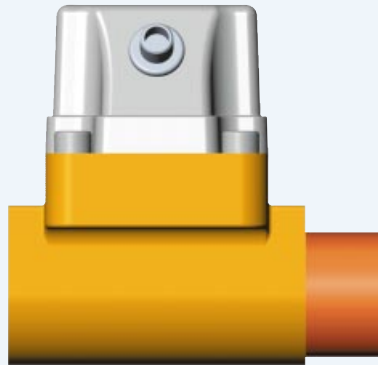
As a natural development, the new M-series takes the Eletta Product line into the demanding and intelligent automation world of today's industry. It has become a must to communicate with overall systems in a digital way. The M-series is Eletta's answer to this demand. The M-series is an expansion of the existing Product line, which will give you a smart programmable electronic Flow Meter. All parameters are accessible through a standard computer interface and the flow rate remotely read via a standard 4 – 20 mA output. A low/high flow alarm switch can be programmed to trip over the whole flow range.



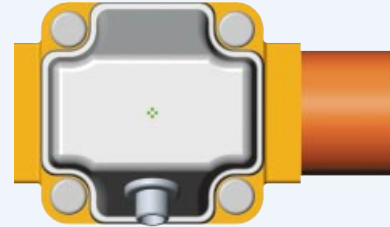
The Product



The M-series Flow Meter has the proven exchangeable and calibrated orifice plate in a newly designed pipe section. The microprocessor based electronic is housed in an EMC secure conductive plastic housing and the pressure sensors are placed in chambers close to the corner tapping pressure channels.



The sleek design contains all necessary parts to form an intelligent Flow Meter. The communication, power supply and flow alarm is handled through one female connector placed in the plastic enclosure. A modern IP67 threaded male connector with cable is connected to this as a standard.



The M-series Flow Meter can be installed in any position, vertical, horizontal or even upside down, without any extra accessories. No changes in the performance will occur due to alternative mountings.

Benefits of the M-series

- **Rugged and sturdy design**
- **Programmable through a lap-top computer**
- **Two-wire power supply**
- **One adjustable flow alarm**
- **4-20 mA linear to flow**
- **Temperature readable through lap-top**
- **Simple design and small in size**
- **Suitable for liquids and gases**

The Eletta M-series Flow Meter

The Eletta M-series Flow Meter is a natural product development from the company, which has been known over the years for its reliable differential pressure Flow Monitors. The Product is the result from the work of engineers, who have numerous years of experience in designing Flow Monitors, Flow Switches and Flow Meters. The M-series remains true to the core principals of all Eletta's products. It is simple, rugged and reliable. In the same time the M-series clearly shows that we can expand the possibilities of Differential Pressure flow metering.

The well proven and acknowledged principle of measuring flow with an orifice plate, creating a differential pressure which corresponds to the flow of liquids and

gases, is combined with a new smart pressure sensor arrangement into a compact and versatile flow meter. The common way in the market of using a costly DP transmitter is avoided and the size of the flow meter has been reduced to a minimum.

The M-series Flow Meter can be used as an intelligent alternative to more expensive solutions where the size and performance matters. The M-series is pre-programmed before delivery to customers specification but it can be reprogrammed if necessary in the field, with Eletta Flow M-WIN software (option).

As an OEM-product it will be difficult to match the performance to price ratio that the lightweight M-series Flow Meter can offer.

Specifications

Flow range:	Liquids: see flow chart for standard flow ranges. For higher flows, please refer to chart on www.eletta.com Gases: will be calculated depending on application
Flow turn-down:	1:10 (valid for stable liquids)
Accuracy *:	+/- 1% F.S. of the default set differential pressure (500mbar). This typically corresponds to a flow accuracy of < +/- 2% F.S. of the flow range during reference conditions for water and air. The actual accuracy is depending on the mounting, media and flow profile
Wetted material:	Copper alloy and 316L stainless steel or all 316L stainless steel
O-rings:	HNBR (nitrile rubber) or FPM (fluorinated rubber)
Max pressure:	10 bar (70 PSI)
Compensated temperature range:	- 10°C to 80°C (-4°F to 176°F)
Enclosure material:	PC/ABS with conductive layer inside
Protection class:	IP67 (NEMA 4X)
Power supply:	8 -28 VDC, 2-wire loop powered. 2 m cable incl. connector to meter and flying end to user
Outputs	<ul style="list-style-type: none"> • 4-20 mA • One MOS output for low/high flow alarm, max load 60 mA, <2,5 Ω • RS485 for communication via M-WIN to computer for programming and display of parameters
Inputs:	Re-configuration on site through Eletta M-WIN software
Software kit:	Set of CD with cables and connectors (option)
Process connections:	DN15 – DN25 (1/2", 3/4" and 1" BSPF) Larger process connections with Eletta "Classic Line" pipe sections. Please refer to charts on www.eletta.com
Approvals:	The Eletta M-series Flow Meter conforms with the EU directive for low voltage no: 72/23/EEC (EN 60 204-1, part 1) and; with the following EU directives for electromagnetic compatibility 89/336/EEC (EN 61 000 - 6-2:2001-1 and EN 61 000 - 6-3:2001). Complies with applicable parts in the PE-Directive 97/23/EG

*includes linearity + hystereses + repeatability + temperature errors of the pressure sensors.
All values are at reference and stable condition.

Eletta Flow Monitors and Meters Find out more

The reliable function of the Eletta Liquid and Gas Flow Monitors and Meters has been proven for over 50 years. The Products have been recognized for their simple and reliable construction, which include the unique lever sealing design and the smart pressure sensor assembly.

The Products are used in a variety of tough industrial applications that require reliability and sturdiness given by each instrument. It is often considered as a calibrated safety device which secures a trustworthy supervision in important process applications.

Find out more of the complete Product Line or details about the M-series on www.eletta.com.

ELETTA

— FLOW MONITORS —

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