ELETTA®
FLOW MONITORS

ROBUST HIGH QUALITY FLOW MONITORS

One Adjustable Switchpoint
Shockproof up to 4G
Longlife **V1 V15**

Mechanical Flow Monitor for Liquids & Gases

The V-series is a very robust and reliable flow monitor for harsh and dusty industrial environment. The V series has one micro switch setpoint, that is independently adjustable within the measuring range and can be set for high or low flow alarms for example to protect expensive equipment in various piping systems.

The Monitor is insensitive to surrounding magnetic fields and it combines the long standing proven mechanical function with outstanding reliability.

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- Monitoring flows of liquid and gases in cooling and lubricating circuits
- Antifreeze protection of heat pump systems
- Dry out protection
- Starting and stopping pump motors
- Low cost solution for difficult flow switching applications
- Interchangeable control units to fit all pipe sections
- Insensitive to magnetic fields
- Replaceable orifice in all models (GL, FA, GSS, FSS) to change the flow measuring range or media.
- Flow Direction changeable in all models, by turning the internal selector in GL & FA and by adding a block in GSS & FSS to change from default "L" to "R".

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 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 which means that the V1 has a 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.

V-Exi & V-Exd for use in explosive atmospheres
The V Series flow monitor is classified as a "simple apparatus" which combined with an intrinsically safe circuit (either through a Zenner barrier or an isolator) meets the requirements of ATEX as well ax IECX for Exi. The V Series is also available in Explosion Proof version Exd. The V-Exi and V-Exd are available in all the usual materials, pipe sizes and process connections. The V-Exi is attached with a yellow label indicating in which environments it is allowed. However, since the V-series is classified as a simple apparatus ATEX Exi formally does not apply.

Modular design
All the Eletta Flow Monitors including V, S, D and M 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 onto the Pipe Section.

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

Eletta Specials

Separate Version
Eletta can also provide several specials, like separate pipe section and Control unit, for example to avoid vibrations.

Mechanical Indication
Small window on the control unit to give an indication of the actual flow. (Option on V.)

LED indication
Small green lamp to indicate when setpoint is activated. (Option on V.)

Welcome to
Eletta Flow
Eletta started business in the late 1940s and since then the name has been synonymus with flow monitoring in many industries worldwide. **Read more »**

Web Configurator
Visite our website and configurate your own Eletta Flow Monitor.
www.eletta.com

Measuring Ranges
Eletta Flow Monitors

ELETTA® FLOW MONITORS

V1

Dim. DN		lit/min
1/2" DN 15	GL, GSS FA, FSS	0,4 - 0,8 0,6 - 1,2 1 - 2 1,6 - 3,2 2 - 4 2,4 - 4,8 3,2 - 6,4 4 - 8 6 - 12 8 - 16 10 - 20 12 - 24 16 - 32
3/4" DN 20	GL, GSS FA, FSS	4 - 8 6 - 12 8 - 16 10 - 20 12 - 24 16 - 32 20 - 40
1" DN 25	GL, GSS FA, FSS	8 - 16 10 - 20 12 - 24 16 - 32 24 - 48 36 - 72 40 - 80
	FA, FSS	50 - 100
1 1/4" DN 32	FA, FSS	20 - 40 28 - 56 40 - 80 60 - 120 80 - 160
1 1/2" DN 40	GL FA, FSS	20 - 40 28 - 56 40 - 80 60 - 120 80 - 160
	FA, FSS	100 - 200
2" DN 50	FA, FSS	40 - 80 60 - 120 80 - 160 120 - 240 160 - 320
2 1/2" DN 65	FA, FSS	60 - 120 80 - 160 120 - 240 160 - 320 240 - 480 280 - 560
3" DN 80	FA, FSS	120 - 240 160 - 320 240 - 480 320 - 640 400 - 800
4" DN 100	FA, FSS	160 - 320 280 - 560 400 - 800 600 - 1200 700 - 1400
5" DN 125	FA, FSS	400 - 800 600 - 1200 800 - 1600 1000 - 2000
6" DN 150	FA, FSS	600 - 1200 800 - 1600 1200 - 2400 1400 - 2800 1500 - 3000
8" DN 200	FA, FSS	800 - 1600 1200 - 2400 1600 - 3200 2400 - 4800 2500 - 5000
10" DN 250	FA, FSS	1600 - 3200 2000 - 4000 3200 - 6400 4000 - 8000

V15

Dim. DN		lit/min
1/2" DN 15	GL, GSS FA, FSS	0,4 - 2 1 - 5 2 - 10 4 - 20 6 - 30 8 - 40
3/4" DN 20	GL, GSS FA, FSS	4 - 20 6 - 30 8 - 40 15 - 75
1" DN25	GL, GSS FA, FSS	6 - 30 12 - 60 16 - 80 24 - 120
	FA, FSS	30 - 150
1 1/4" DN 32	FA, FSS	8 - 40 20 - 100 40 - 200 50 - 250
1 1/2" DN 40	GL, FA, FSS	8 - 40 20 - 100 40 - 200 60 - 300
2" DN 50	FA, FSS	20 - 100 40 - 200 70 - 350 100 - 500
2 1/2" DN 65	FA, FSS	20 - 100 50 - 250 100 - 500 160 - 800
3" DN 80	FA, FSS	40 - 200 80 - 400 160 - 800 240 - 1200
4" DN 100	FA, FSS	80 - 400 160 - 800 250 - 1250 400 - 2000
5" DN 125	FA, FSS	100 - 500 200 - 1000 400 - 2000 600 - 3000
6" DN 150	FA, FSS	200 - 1000 400 - 2000 600 - 3000 900 - 4500
8" DN 200	FA, FSS	400 - 2000 600 - 3000 1000 - 5000 1500 - 7500
10" DN 250	FA, FSS	600 - 3000 1000 - 5000 1600 - 8000 2400 - 12000

It is possible to order a lower range than indicated.
Other ranges can be quoted upon request.

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Variation of process connections and materials: Steel, Stainless Steel and Brass

V-GL
The V-series Flow Monitor with aluminium housing and threaded brass pipe connection. Available in BSP/NPT threads from 15-40 mm (½" - 1 ½").

V-FA
The V-series Flow Monitor with aluminium housing and flanged pipe connection in painted steel. Available in DIN/ANSI from 15-400 mm (½" - 16").

V-GSS
The V-series Flow Monitor with aluminium housing and threaded stainless steel pipe connection. Available in BSP/NPT threads from 15-25 mm (½-1").

V-FSS
The V-series Flow Monitor with aluminium husing and flanged pipe connection in stainless steel. Available in DIN/ANSI from 15-500 mm (½-20").

V-SS-GSS
Flow Monitor with Stainless Steel housing and Stainless Steel threaded pipe section with BSP/NPT threads from 15-25 mm (½" - 1").

V-SS-FSS
Flow monitor with Stainless Steel housing and Stainless Steel flanged pipe section (wafer). Available in sizes DN15-500 mm (½" - 20")

Exi- version:
Intrinsically Safe Option for V-GL/FA and V-SS-GSS/FSS Series. With One SPDT Switch

Ex ia IIC T6 Ga
Certificate Id: SP11EX2643X
Ui: 28 V, Ii: 100 mA, Pi: 1,2W
Li: 10µH, Ci: 1nF

Exd-version: Explosion Proof Option for V-GL/FA and V-SS-GSS/FSS Serie
With One SPST Switch Max 5A @ 250 VAC and 5A @ 30 VDC
With Ex 2014/34/EU
II 2G Ex h d IIC T6(85°C)-T3(200°C) – Gb approved.

All stainless steel
Both housing and pipe-section in Stainless Steel to withstand any harsh environment. This is available to increase the durability of the Monitors when using Stainless Steel pipe sections.

Flow range	0,4–25 000 l min (liquid), to choose the right range, see table of ranges page 3
Flow turndown	V1 - 1:2 V15 - 1:5
Wetted Material	Copper alloy, painted steel. Seaworthy stainless steel 904L stainless steel, 316L
Rubber Parts	Nitrile (HNBR), EPDM and Fluorinated rubber (FPM)
Min. pressure	Appr. 700 – 1000 mbar (0,7 – 1 bar)
Max. pressure	16 bar (232 PSI)
Max. temp. Control Unit	90°C standard, 120°C optional
Max. temp. Pipe Section	-GL and -FA: 120°C (248°F) -GSS, -FSS: 250°C (482°F)
Enclosure	IP65 (NEMA4)
Indicating window	Option 20mm
LED indication	Option max 28 VDC
Process Connection	DN 15–40, BSP/NPT thread DN 15–500 DIN/ANSI flange (wafer)
Alarm Contacts	1 micro switch SPDT contact, adjustable within the ordered Flow range.
Micro switch spec	Contact surfaces are silver plated as standard. Ty pe: SPDT Hystereses: 10% Rated voltage: 480 VAC 15A Breaking current: 15@125, 250, 480 VAC Resistive load: 2A@30 VDC 0,4A@125 VDC 0,2A@230 VDC 480 VA
Repeatability	Flow range <2% actual
Certificates	

UK CA | CE

ISO 9001:2015 · ISO 14001:2015 CERTIFICATION
Intertek

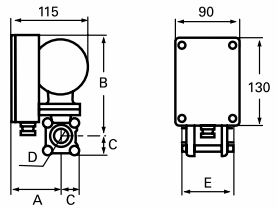
PED
2014/68/EU

Weight and Dimensions

ELETTA® FLOW MONITORS

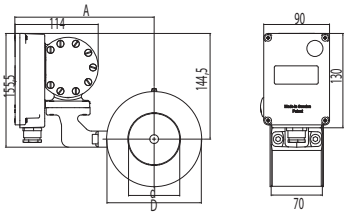
V - GL

Type	D	A mm	B mm	C mm	E mm	Weight kg*
-GL15	1/2"	75	150	30	80	3,0
-GL20	3/4"	75	150	30	80	3,0
-GL25	1"	75	150	30	80	3,0
-GL40	1 1/2"	85	160	40	90	4,0



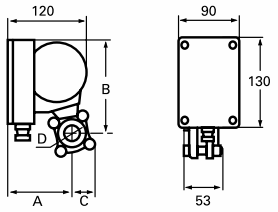
V - FA

Type	d mm	D mm	A mm	Width mm	Weight kg*
-FA15	16 (1/2")	53	150	70	4,0
-FA20	22 (3/4")	63	154	70	4,5
-FA25	30 (1")	73	161	70	4,5
-FA32	39 (1 1/4")	84	167	70	5,0
-FA40	43 (1 1/2")	94	172	70	6,0
-FA50	55 (2")	109	180	70	6,0
-FA65	70 (2 1/2")	129	190	70	7,0
-FA80	82 (3")	144	197	70	8,0
-FA100	107 (4")	164	207	70	8,0
-FA125	132 (5")	194	222	70	10,0
-FA150	159 (6")	219	235	70	11,0
-FA200	207 (8")	274	263	70	15,0
-FA250	260 (10")	330	290	70	19,0
-FA300	310 (12")	385	320	70	21,0
-FA350	340 (14")	445	345	70	35,0
-FA400	390 (16")	498	375	70	40,5



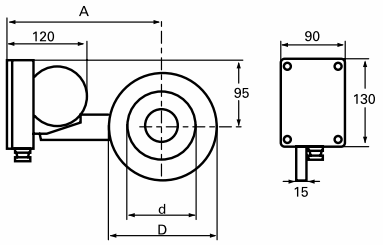
V - GSS

Type	D	A mm	B mm	C mm	Width mm	Weight kg*
-GSS15	1/2"	100	130	35	53	3,0
-GSS20	3/4"	100	130	35	53	3,0
-GSS25	1"	100	130	35	53	3,0



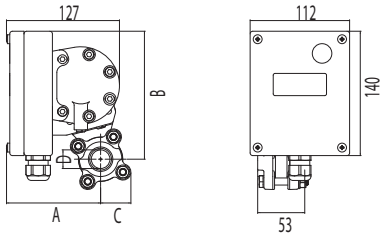
V - FSS

Type	d mm	D mm	A mm	Width mm	Weight kg*
-FSS15	16 (1/2")	53	169	15	3,0
-FSS20	22 (3/4")	63	175	15	3,0
-FSS25	30 (1")	73	183	15	3,0
-FSS32	39 (1 1/4")	84	185	15	3,0
-FSS40	43 (1 1/2")	94	190	15	3,0
-FSS50	55 (2")	109	210	15	3,0
-FSS65	70 (2 1/2")	129	220	15	3,5
-FSS80	82 (3")	144	228	15	3,5
-FSS100	107 (4")	164	238	15	4,0
-FSS125	132 (5")	194	253	15	4,5
-FSS150	159 (6")	219	266	15	5,0
-FSS200	207 (8")	274	293	15	6,5
-FSS250	260 (10")	330	320	15	8,0
-FSS300	310 (12")	385	350	15	9,5
-FSS350	340 (14")	445	375	15	14,5
-FSS400	390 (16")	498	405	15	16,5



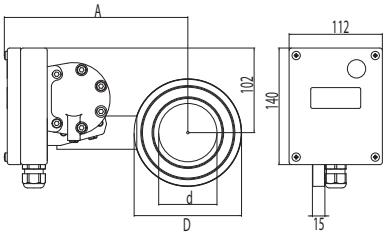
All stainless steel V-SS - GSS

Type	D	A mm	B mm	C mm	Width mm	Weight kg*
-GSS15	1/2"	110	149	35	53	3,5
-GSS20	3/4"	110	149	35	53	3,5
-GSS25	1"	110	149	35	53	3,5



V-SS - FSS

Type	d mm	D mm	A mm	Width mm	Weight kg*
-FSS15	16 (1/2")	53	179	15	3,5
-FSS20	22 (3/4")	63	185	15	3,5
-FSS25	30 (1")	73	193	15	3,5
-FSS32	39 (1 1/4")	84	195	15	3,5
-FSS40	43 (1 1/2")	94	200	15	3,5
-FSS50	55 (2")	109	220	15	3,5
-FSS65	70 (2 1/2")	129	230	15	4,0
-FSS80	82 (3")	144	238	15	4,0
-FSS100	107 (4")	164	248	15	4,5
-FSS125	132 (5")	194	263	15	5,0
-FSS150	159 (6")	219	276	15	5,5
-FSS200	207 (8")	274	303	15	7,0
-FSS250	260 (10")	330	330	15	8,5
-FSS300	310 (12")	385	360	15	10,0
-FSS350	340 (14")	445	385	15	15,0
-FSS400	390 (16")	498	415	15	17,0



Ordering code

ELETTA
FLOW MONITORS

Serie

V	

Measuring span

1	1:2	50-100% of max measuring range e.g. 10-20 l/min
15	1:5	20-100% of max measuring range e.g. 10-50 l/min

Indicating unit

-	Standard, painted aluminium
SS	All Stainless steel

Pipe section

GL	Thread, brass
FA	Flange painted steel
GSS	Thread stainless steel
FSS	Flange stainless steel

Dimension

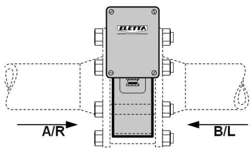
15	1/2"	Thread GL, GSS or Flange FA, FSS
20	3/4"	Thread GL, GSS or Flange FA, FSS
25	1"	Thread GL, GSS or Flange FA, FSS
32	1" 1/4	Flange FA, FSS
40	1" 1/2	Thread GL, GSS or Flanged FA, FSS
50	2"	Flange FA, FSS
65	2" 1/2	Flange FA, FSS
80	3"	Flange FA, FSS
100	4"	Flange FA, FSS
125	5"	Flange FA, FSS
150	6"	Flange FA, FSS
200	8"	Flange FA, FSS
250	10"	Flange FA, FSS Larger dimensions on request

Media

Water	
Oil	
Gas	Please specify: Pressure, working temperature and type of gas
Other	Please specify: Media, pressure, density, viscosity, pressure and working temperature

Installation alternative

A/R	A/R - Left to right in a horizontal pipe
B/L	B/L - Right to left in a horizontal pipe



Measuring range

See separate table

Options

High temp version 120 C	Customized alarm set point
Gold plated switches	Mark on tag plate
SPDT switch split contact	NPT connection
DPDT switch (only on V15)	ANSI connection
Mechanical indication (small window)	Rubber parts in other material
LED indication (small lamp on side)	Separate mounting kit
Exi-version (ExiaIICT6Ga)	Manifold with shut-off valves
Chemical nickel plated (for GL only)	Exd-version

Example of Code

V1-GL15, Water, A/R, 4-8 l/min

All combinations are not possible so please check upon ordering.

Eletta Flow AB
P.O. Box 5084
SE-141 05 Kungens Kurva
Sweden

Tel: +46 8 – 603 07 70
info@eletta.com
www.eletta.com