ELETTA®
FLOW MONITORS

ROBUST HIGH QUALITY FLOW MONITORS

Two adjustable alarms
Display LCD, 4 – 20 mA
output and HART

Mechanical Flow Monitor for Liquids & Gases

D2-GSS25

The D-series has a digital display that can be rotated electronically in 90 degree increments all over a 360 degree angle. The D-series Flow Monitor can then be installed in any position, vertically or horizontally, and with the flow coming from four different directions.

There is also a resettable flow totalizer, which summarizes the flow over time within the chosen measuring range. In order to conveniently set up a flow system at dry conditions, a simulation mode for the analog and frequency output signal as well as the HART protocol can be activated.

ELETTA®
FLOW MONITORS

- Liquid and gases can be measured
- 4-20 mA output, HART protocol, pulse or frequency
- Two settable local alarms
- Digital back-lit graphic display
- Not affected by static pressure
- Interchangeable control units to fit all pipe sections

The D-Series Flow Monitor
The Eletta Flow Monitors´ 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 it´s simplicity and its relatively low cost.

The Eletta D-series Flow Monitor is used to control flow of liquids and gases in pipes from 15 mm to 500 mm. With two relay contacts, independently adjustable within the ordered flow range, you can protect expensive equipment in various piping systems. The switching point is highly repeatable, within <2%. The D-series has the long-standing proven mechanical function with outstanding reliability. The exceptionally sturdy and robust design makes it extremely well suited for difficult environments.

The D-series comes in two measuring ratios which means that the D2 has a mesuring span of 1:2 and the D5 has a span of 1:5. Like all Eletta Flow Monitors the D-series can monitor both liquids and gases.

The instrument consists of two parts mainly, i.e. the Control Unit and the Pipe Section. The Pipe Section is to be mounted in the process pipe and comes in different material and sizes. The Control Unit is mounted directly or remote onto the Pipe Section. The Control Unit can also be used independently to upgrade an already installed Eletta Flow Monitor such as the V- or the S-series even after the installation.

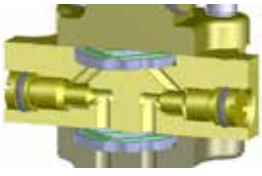
The Control Unit contains the display in which you can easily adjust the monitor to your demands in field. Change your output, local alarms, language, the orientation of the display etc. There is also a simulation function that gives you the possibility to create and simulate a real mA-signal from the unit even if you don´t have any flow. In this mode HART protocol transmits the simulated values.

The Control Unit is pre-calibrated before leaving our production facilities. You can change the unit in the field without recalibration.

Eletta Specials

Separate Version
Eletta can also provide several specials, like separate pipe section and Control unit, e.g. to put the display on a better visible place or to avoid vibrations.

Flow Direction change
Easy to change, just unlock 4 screws and turn the flow direction selector to the right direction of your installation. Available on –GL and –FA series.



Shut-off valves
As an option we have a manifold with shut-off valves. This enables you to dismount the Control Unit from the Pipe Section during full operation.

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

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

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

D-FA Series
A flanged pipe connection in sizes DN15-400 mm (½" - 16") in painted steel. Fits well together with the D-series Flow Monitor with aluminium housing.

D-GSS Series
Also available in a threaded version is the Stainless Steel pipe connection together with the Aluminium housing. It comes with BSP/NPT threads from 15-25 mm (½" - 1").

D-FSS Series
Flow Monitor with aluminium housing and Stainless Steel flanged pipe connection (wafer). Available in sizes DN15-500 mm (½" - 20").

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

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

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 please see table of Measuring ranges.
Flow turndown	D2 – 1:2 D5 – 1:5
Wetted Material	Copper alloy, painted steel. Seaworthy stainless steel 904L, stainless steel 316.
Rubber Parts	Nitrile (HNBR), EPDM and Fluorinated rubber (FPM).
Min. pressure	Appr. 1 bar (14 PSI)
Max. pressure	16 bar (232 PSI)
Max. temp. Control Unit	Operating temperature -10 to 65°C
Max. temp. Pipe Section	-GL and –FA: -10 to 120°C -GSS and –FSS: -10 to 250°C
Enclosure	IP65
Display	Backlit graphic display, electronically rotatable 90/180/270/360° 58x30 mm (2,6" FSTN)
Counter	Re-settable flow volume counter
Process Connection	DN 15-40 BSP/NPT thread DN 15-500 DIN/ANSI flange (wafer)
Power supply	24 VDC ± 1,5 VDC
Connection cable	Shielded twisted pair, min. 0,2 mm^2
Current consumption	Max 50 mA
Output	4-20 mA, HART protocol, pulse or 200-1000 Hz frequency
Alarm relays	Two relay contacts, independently adjustable within the ordered Flow range. Max. 50 V AC/DC. Min. 1 mA, 5 VDC Max. switching capacity: 30 W
Accuracy	± 2% F.S. (full scale)
Repeatability	± 2% actual
Certificates	

CE Intertek PED 2014/68/EU

Measuring Ranges
Eletta Flow Monitors

ELETTA® FLOW MONITORS

D2

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

D5

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

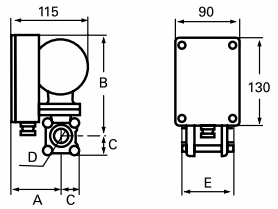
It is possible to order a lower range than indicated.
Other ranges can be quoted upon request.

Weight and Dimensions

ELETTA® FLOW MONITORS

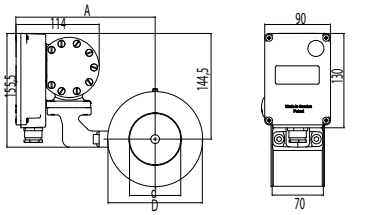
D - GL

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



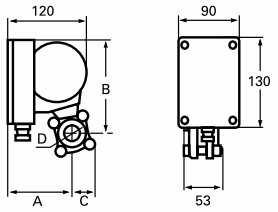
D - FA

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



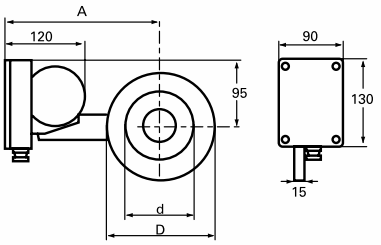
D - GSS

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



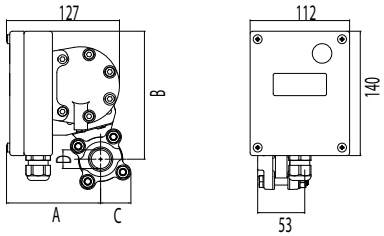
D - FSS

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



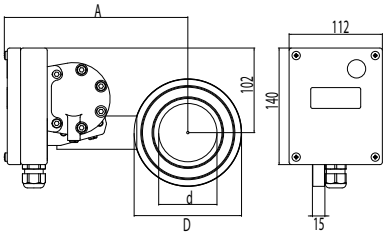
All stainless steel D-SS - GSS

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



D-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

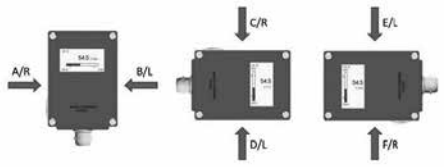


*Approximate weight

Ordering code

ELETTA® FLOW MONITORS

Serie			
D			
	Measuring span		
	2	1:2	50-100% of max measuring range e.g. 10-20 l/min
	5	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
			B/L
			C/R
			D/L
			E/L
			F/R



A/R - Left to right in a horizontal pipe
B/L - Right to left in a horizontal pipe
C/R - Up to down, display on right side of the pipe
D/L - Down to up, display on right side of thepipe
E/L - Up to down, display on left side of the pipe
F/R - Down to up, display on left side of the pipe

Measuring range
See separate table

Options			
A	Chemical nickel plated (for GL only)	E	ANSI connection
B	Customized alarm set point	F	Rubber parts in other material
C	Mark on tag plate	G	Separate mounting kit
D	NPT connection	H	Manifold with shut-off valves

Example of Code

D2-GL40, Water, A/R, 40-80 l/min

All combinations are not possible so please check upon ordering.

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