

ROBUST HIGH QUALITY FLOW MONITORS

2 Adjustable alarms
Big 120mm Dial
Shockproof up to 4G



Mechanical Flow Monitor for Liquids & Gases



S2-FSS80

The S-series have a large and easy readable dial of 120 mm which is clearly visible even in a harsh and dusty industrial environment.

It has two micro switch setpoints which are independently adjustable within the measuring range and they can be set for high and 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.

The S-series can also be ordered without the micro switches, designated S0-series, and is then used as a direct reading flow monitor only.

- 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
- Shows flow without external power
- Low cost solution for difficult flow applications
- Interchangeable control units to fit all pipe sections
- Insensitive to magnetic fields
- Large 120 mm dial
- 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 S-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 S-series Flow Monitor is used to monitor and control the flow of liquids and gases in pipes from 15 mm to 500 mm. The direct reading S-series has a large and easy readable 120 mm dial with a linear scale. It can be fitted with a customized scale as an option.

It is ideally suited for harsh and dusty industrial environments where its sturdy and robust design are appreciated. In addition, it is possible through the two independently adjustable SPDT micro switches, to set a low and or high flow alarm to protect expensive equipment in various piping systems.

The Monitor is insensitive to surrounding magnetic and radioactive 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 S-series can also be ordered without the micro switches, designated S02 and S05, and is then used as a direct reading flow meter only.

The S-series comes in two measuring ratios designated S2/S02 and S25/S05, which means that the S2/S02 has a measuring span of 1:2 and the S25/S05 has a span of 1:5.

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

Modular design

All the Eletta Flow Monitors including the S-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.

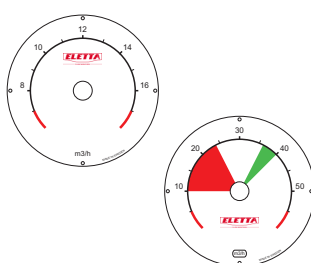
As the Control Unit is pre-calibrated before leaving our production facilities, you can change pipe sections in the field to fit other dimensions and materials than originally ordered without recalibration.

Eletta Specials



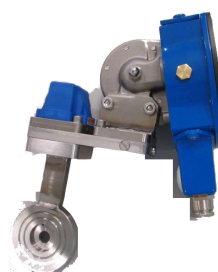
Separate Version

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



Special scales

Direct reading dial in l/min, m³/h etc. We can also make a special designed scale suitable for your application, different colours, marks etc



Add a 4...20mA Signal

with the new parallel plate it is simple to add an 4...20mA Output signal to existing Flow Monitor of S-Series

Welcome to Eletta Flow

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

Web Configurator

Visit our website and configure your own Eletta Flow Monitor. www.eletta.com

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



S-GL

The S-series Flow Monitor with aluminium housing and threaded brass pipe connection. Available in BSP/NPT threads from 15-40 mm ($\frac{1}{2}$ " - 1 $\frac{1}{2}$ ").



S-FA

A flanged pipe connection in sizes DN15-400 mm ($\frac{1}{2}$ " - 16") in painted steel. Fits well together with the S-series Flow Monitor with aluminium housing.



S-GSS

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 ($\frac{1}{2}$ " - 1").



S-FSS

Flow Monitor with aluminium housing and Stainless Steel flanged pipe connection (wafer). Available in sizes DN15-500 mm ($\frac{1}{2}$ " - 20").



S-SS-GSS

Flow Monitor with Stainless Steel housing and Stainless Steel threaded pipe section with BSP/NPT threads from 15-25 mm ($\frac{1}{2}$ " - 1").



S-SS-FSS

Flow monitor with Stainless Steel housing and Stainless Steel flanged pipe section (wafer). Available in sizes DN15-500 mm ($\frac{1}{2}$ " - 20").

Explosion Proof Option for S-SS-GSS/FSS Series

With One SPST Switch Max 5A @ 250 VAC and 5A @ 30 VDC
With 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, please refer to table of Measuring ranges
Flow turndown	S2 - 1:2 S25 - 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 S series	IP43 (NEMA3R) std. IP65 (NEMA4) option
Enclosure S-SS series	IP65 (NEMA4) std.
Dial	Large 120 mm diameter with linear scale and front glass of PC
Process Connection	DN 15-40, BSP/NPT thread / DN 15-500 DIN/ANSI flange (wafer)
Alarm Contacts	S2 and S25 has 2 (two) micro switch SPDT contacts, independently adjustable within the ordered Flow range. S02 and S05 comes without switches
Micro switch spec	Contact surfaces are silver plated as standard. Type: SPDT Hysteresis: 10% Rated voltage: 480 VAC 15A Breaking current: 15@125, 250, 480 VAC 2A@30 VDC Resistive load: 0,4A@125 VDC 0,2A@230 VDC
Accuracy	<+ -5% F.S within 20-80% of Flow range <+ -10% F.S within 100% of Flow range
Repeatability	<2% actual
Certificates	



Measuring Ranges

Eletta Flow Monitors



S02 and S2			
Dim. DN		lit/min	MCx(S2)
1/2" DN 15	GL, GSS FA, FSS	0,4 - 0,8	0,1
		0,6 - 1,2	0,15
		1 - 2	0,25
		1,6 - 3,2	0,4
		2 - 4	0,5
		2,4 - 4,8	0,6
		3,2 - 6,4	0,8
		4 - 8	1
		6 - 12	1,5
		8 - 16	2
		10 - 20	2,5
		12 - 24	3
		16 - 32	4
3/4" DN 20	GL, GSS FA, FSS	4 - 8	1
		6 - 12	1,5
		8 - 16	2
		10 - 20	2,5
		12 - 24	3
		16 - 32	4
		20 - 40	5
1" DN 25	GL, GSS FA, FSS	8 - 16	2
		10 - 20	2,5
		12 - 24	3
		16 - 32	4
		24 - 48	6
		36 - 72	9
		40 - 80	10
		50 - 100	12,5
		FA, FSS	12,5
		FA, FSS	12,5
1 1/4" DN 32	FA, FSS	20 - 40	5
		28 - 56	7
		40 - 80	10
		60 - 120	15
		80 - 160	20
1 1/2" DN 40	GL FA, FSS	20 - 40	5
		28 - 56	7
		40 - 80	10
		60 - 120	15
		80 - 160	20
FA, FSS	FA, FSS	100 - 200	25
		FA, FSS	25
2" DN 50	FA, FSS	40 - 80	10
		60 - 120	15
		80 - 160	20
		120 - 240	30
		160 - 320	40
2 1/2" DN 65	FA, FSS	60 - 120	15
		80 - 160	20
		120 - 240	30
		160 - 320	40
		240 - 480	60
		280 - 560	70
3" DN 80	FA, FSS	120 - 240	30
		160 - 320	40
		240 - 480	60
		320 - 640	80
		400 - 800	100
4" DN 100	FA, FSS	160 - 320	40
		280 - 560	70
		400 - 800	100
		600 - 1200	150
		700 - 1400	175
5" DN 125	FA, FSS	400 - 800	100
		600 - 1200	150
		800 - 1600	200
		1000 - 2000	250
6" DN 150	FA, FSS	600 - 1200	150
		800 - 1600	200
		1200 - 2400	300
		1400 - 2800	350
		1500 - 3000	375
8" DN 200	FA, FSS	800 - 1600	200
		1200 - 2400	300
		1600 - 3200	400
		2400 - 4800	600
		2500 - 5000	625
10" DN 250	FA, FSS	1600 - 3200	400
		2000 - 4000	500
		3200 - 6400	800
		4000 - 8000	1000

S05 and S25			
Dim. DN		lit/min	MCx(S25)
1/2" DN 15	GL, GSS FA, FSS	0,4 - 2	0,4
		1 - 5	1
		2 - 10	2
		4 - 20	4
		6 - 30	6
		8 - 40	8
3/4" DN 20	GL, GSS FA, FSS	4 - 20	4
		6 - 30	6
		8 - 40	8
		15 - 75	15
1" DN 25	GL, GSS FA, FSS	6 - 30	6
		12 - 60	12
		16 - 80	16
		24 - 120	24
		FA, FSS	30
1 1/4" DN 32	FA, FSS	8 - 40	8
		20 - 100	20
		40 - 200	40
		50 - 250	50
		FA, FSS	50
1 1/2" DN 40	GL FA, FSS	8 - 40	8
		20 - 100	20
		40 - 200	40
		60 - 300	60
		FA, FSS	60
2" DN 50	FA, FSS	20 - 100	20
		40 - 200	40
		70 - 350	70
		100 - 500	100
2 1/2" DN 65	FA, FSS	20 - 100	20
		50 - 250	50
		100 - 500	100
		160 - 800	160
3" DN 80	FA, FSS	40 - 200	40
		80 - 400	80
		160 - 800	160
		240 - 1200	240
4" DN 100	FA, FSS	80 - 400	80
		160 - 800	160
		250 - 1250	250
		400 - 2000	400
5" DN 125	FA, FSS	100 - 500	100
		200 - 1000	200
		400 - 2000	400
		600 - 3000	600
6" DN 150	FA, FSS	200 - 1000	200
		400 - 2000	400
		600 - 3000	600
		900 - 4500	900
8" DN 200	FA, FSS	400 - 2000	400
		600 - 3000	600
		1000 - 5000	1000
		1500 - 7500	1500
10" DN 250	FA, FSS	600 - 3000	600
		1000 - 5000	1000
		1600 - 8000	1600
		2400 - 12000	2400

MC = Measuring Constant (for S-series)

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



Weight and Dimensions

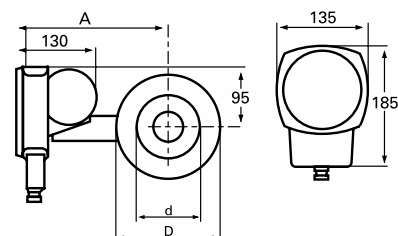
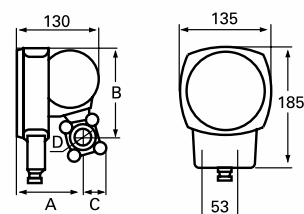
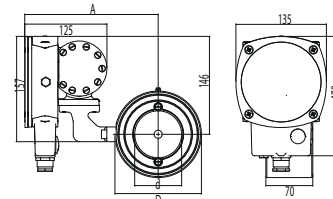
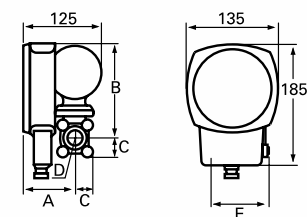


S-GL						
Type	D	A mm	B mm	C mm	E mm	Weight kg*
-GL15	1/2"	85	150	30	80	3,5
-GL20	3/4"	85	150	30	80	3,5
-GL25	1"	85	150	30	80	3,5
-GL40	1 1/2"	95	160	40	90	4,5

S-FA					
Type	d mm	D mm	A mm	Width mm	Weight kg*
-FA15	16 (1/2")	53	160	70	4,5
-FA20	22 (3/4")	63	164	70	5,0
-FA25	30 (1")	73	171	70	5,0
-FA32	39 (1 1/4")	84	177	70	5,5
-FA40	43 (1 1/2")	94	182	70	6,5
-FA50	55 (2")	109	190	70	6,5
-FA65	70 (2 1/2")	129	200	70	7,5
-FA80	82 (3")	144	207	70	8,0
-FA100	107 (4")	164	217	70	9,0
-FA125	132 (5")	194	232	70	11,0
-FA150	159 (6")	219	245	70	11,0
-FA200	207 (8")	274	273	70	15,5
-FA250	260 (10")	330	300	70	19,0
-FA300	310 (12")	385	330	70	22,0
-FA350	340 (14")	445	355	70	35,5
-FA400	390 (16")	498	385	70	41,0

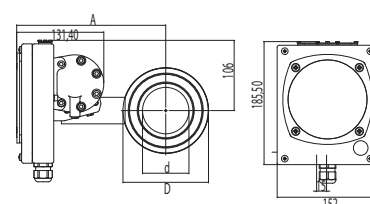
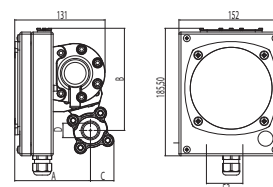
S-GSS						
Type	D	A mm	B mm	C mm	Width mm	Weight kg*
-GSS15	1/2"	110	130	35	53	3,0
-GSS20	3/4"	110	130	35	53	3,0
-GSS25	1"	110	130	35	53	3,0

S-FSS					
Type	d mm	D mm	A mm	Width mm	Weight kg*
-FSS15	16 (1/2")	53	179	15	3,0
-FSS20	22 (3/4")	63	185	15	3,0
-FSS25	30 (1")	73	193	15	3,5
-FSS32	39 (1 1/4")	84	200	15	3,5
-FSS40	43 (1 1/2")	94	205	15	3,5
-FSS50	55 (2")	109	220	15	4,0
-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	9,0
-FSS300	310 (12")	385	355	15	10,0
-FSS350	340 (14")	445	385	15	15,0
-FSS400	390 (16")	498	415	15	17,0



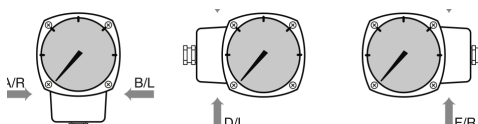
All stainless steel S-SS - GSS						
Type	D	A mm	B mm	C mm	Width mm	Weight kg*
-GSS15	1/2"	120	149	35	53	3,5
-GSS20	3/4"	120	149	35	53	3,5
-GSS25	1"	120	149	35	53	3,5

S-SS - FSS					
Type	d mm	D mm	A mm	Width mm	Weight kg*
-FSS15	16 (1/2")	53	184	15	3,5
-FSS20	22 (3/4")	63	190	15	3,5
-FSS25	30 (1")	73	198	15	4,0
-FSS32	39 (1 1/4")	84	205	15	4,0
-FSS40	43 (1 1/2")	94	210	15	4,0
-FSS50	55 (2")	109	225	15	4,5
-FSS65	70 (2 1/2")	129	235	15	4,5
-FSS80	82 (3")	144	243	15	4,5
-FSS100	107 (4")	164	253	15	5,0
-FSS125	132 (5")	194	268	15	5,5
-FSS150	159 (6")	219	281	15	6,0
-FSS200	207 (8")	274	308	15	7,5
-FSS250	260 (10")	330	335	15	9,5
-FSS300	310 (12")	385	360	15	10,5
-FSS350	340 (14")	445	390	15	15,5
-FSS400	390 (16")	498	420	15	17,5



*Approximate weight

Ordering code

Serie			
S			
Measuring span			
2	1:2	50-100% of max. Flow range, e.g. 10-20 l/min (two switches)	
25	1:5	20-100% of max. Flow range, e.g. 10-50 l/min (two switches)	
02	1:2	50-100% of max. Flow range, e.g. 10-20 l/min (no switches)	
05	1:5	20-100% of max. Flow range, e.g. 10-50 l/min (no switches)	
Indicating unit			
-	Standard, painted aluminium		
SS	All Stainless steel		
Process connection			
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 or Flange 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 demand	
Media			
Water			
Gas	Please specify: Pressure, working temperature and type of gas		
Other	Please specify: Media, pressure, density, viscosity, pressure and working temperature		
Installation alternative / Flow direction			
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, dial on right side of the pipe D/L - Down to up, dial on right side of the pipe E/L - Up to down, dial on left side of the pipe F/R - Down to up, dial on left side of the pipe		
Measuring range			
See separate table			
Options			
	High temp version 120°C (S2/S25)		Customized alarm set point
	Gold plated switches (S2/S25)		Mark on tag plate
	SPDT switch split contact (S2/S25)		ANSI connection
	Direct reading dial (eg. l/min, m3/h etc)		NPT connection
	Special designed dial		Rubber parts in other material
	Protection class IP65 (NEMA 4)		Separate mounting kit
	Chemical Nickel plating (for GL only)		Manifold with shut-off-valves
			Exd-version

Example of Code

S25-GL40, Water, A/R, 20-100 l/min

All combinations are not possible so please check upon ordering.