



SENSORS &
CONTROLLERS



ANALYZERS
& SAMPLERS



LEVEL, FLOW
& PRESSURE



WEB APP &
DATALOGGING



ACCESSORIES

S103SP DATA SHEET

ELECTROMAGNETIC FLOW METER

Flow measurement for conductive and chemically aggressive liquids

DN from 10 to 2000 mm

Measurement accuracy: $\pm 0.2\%$; $\pm 0.5\%$

Neoprene or PTFE coatings

Power supply 85÷265 Vac; 12Vdc ; 24 Vdc/ac

Datalogger on USB PEN DRIVE

Removable O-LED display module

Remote control via Smartphone



MAIN FEATURES

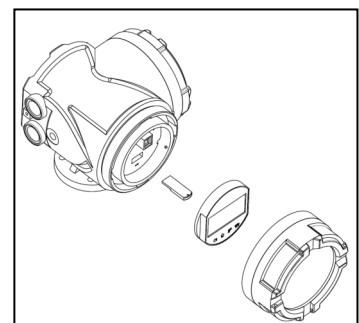
The S103S product line consists of a range of solutions to suit the many applications in the water treatment and industrial sectors.

The S103SP model is particularly suitable for measurements in water treatment, available with various coating materials and with measuring electrodes in different metals depending on the application (AISI 316L, Hastelloy c, Tantalum, Titanium, Platinum).

The converter is available with one of the most common communication interfaces such as Modbus. It has an on-board data logger (optional) for recording measurements. The measured quantities are stored in a TXT file compatible with Excel or other equivalent software..

Data logger physically consists of a USB PEN DRIVE.

USB port on the pen drive is located behind the removable O-LED display.



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TECNICAL FEATURES

Flow range Processing of signals from fluids with speeds up to 10m/s in both directions (bi-directional meter).

Range size / lining material PTFE DN10 TO DN500 / RUBBER DN65 TO DN2000

Sensor material: SS321

Electronic housing material epoxy-coated aluminium

Electrode material AISI316L, Hastelloy C - Titanium - Tantalum - Platinum

Measuring range $<0.1\text{m}^3/\text{h} \div >110000\text{m}^3/\text{h}$

Accuracy $\pm 0.5\%$ standard; $\pm 0.2\%$ optional

Repeatability $\pm 0.1\%$

Fluid conductivity The fluid must have a conductivity of at least $5\text{ }\mu\text{S}/\text{cm}$.

Supply voltage $85\div 265\text{Vac}$, $24\text{Vac}/\text{dc}$, 12Vdc

Typical consumption 6W, max. 8W.

Temperature range

Process temperature remote version:

rubber -10 to $+80^\circ\text{C}$; PTFE -40 to $+150^\circ\text{C}$

Process temperature compact version

rubber -10 to $+80^\circ\text{C}$; PTFE -40 to $+100^\circ\text{C}$

Storage temperature -40 to 85°C

Communication protocol

Modbus RTU or Bluetooth with app. (opt.)

Internal data logger (opt.) on USB pen drive for storing flow rate measurements and analogue inputs; measurement storage interval settable from 15 to 3600 seconds

Output signals

Analogue: $4\div 20\text{mA}$; $0\div 500\Omega$:

Frequency: $0.1\div 10000\text{Hz}$

Pulse galvanically isolated open collector 24V , 20mA max

Alarm output: 2 relays, 3A 230Vac N.O

Input signals 2 active 24Vdc analogue inputs for connection to 2-wire transmitters (e.g. pressure or temperature) and a digital input for connection of an external contact for restarting the integrated batch function and for managing a partial totaliser

Reverse flow rate Instantaneous measurement and totalisation of reverse flow rate.

Test output signals Relay

outputs: switching of relays to a test state

Analogue output: simulation of $4\div 20\text{mA}$

Output signal to a test value.

Frequency output: simulation of output signal $0\div 10000\text{Hz}$ to a test value

Adjustable flow cut-off Below the set value the instantaneous flow display and outputs are forced to zero.

Relative humidity $0\div 100\%$ RH at 65°C , non-condensing.

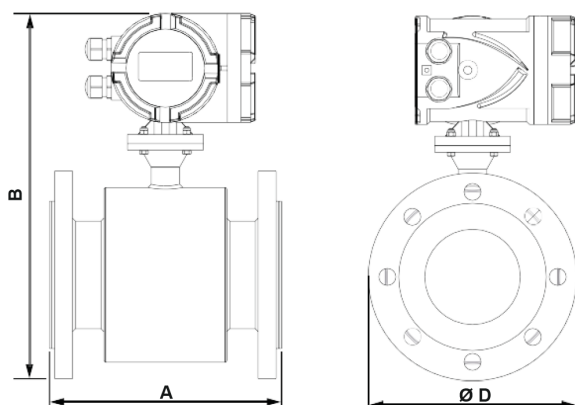
Response time (integration): Adjustable between 1 and 99 seconds

Protection compact version IP67

Protection remote sensor version IP67 / IP68 (on request) - IP67 converter

Anti-condensation Anti-condensation filter installed on converter

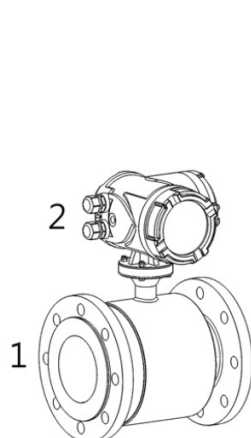
DIMENSION



DN (mm)	A (mm)	PN 16 - PN 40	
		B (mm)	ØD (mm)
10	200	295	90
15		295	95
20		300	105
25		300	115
32		315	140
40		335	150
50		344	165
65		360	185
80		375	200

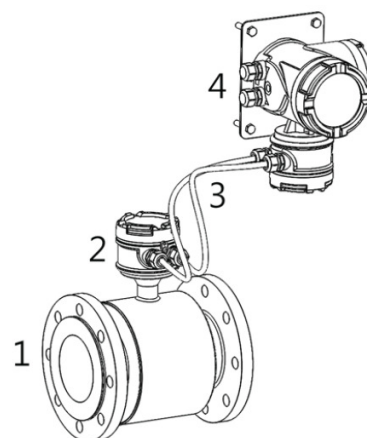
DN (mm)	A (mm)	PN 10		PN 16		PN 40	
		B (mm)	ØD (mm)	B (mm)	ØD (mm)	B (mm)	ØD (mm)
100	250	-	-	400	220	410	235
125	250	-	-	420	250	435	270
150	300	-	-	460	285	468	300
200	350	520	340	520	340	538	375
250	450	570	395	575	405	598	450
300	500	620	445	620	460	648	515
350	550	670	505	678	520	708	580
400	600	730	565	738	580	778	660
450	600	780	615	793	640	816	685
500	600	830	670	850	715	870	755
600	600	930	780	960	840	985	890
700	700	1050	895	1080	910	-	-
800	800	1165	1015	1170	1025	-	-
900	900	1270	1115	1275	1125	-	-
1000	1000	1360	1230	1375	1255	-	-

VERSION



COMPACT VERSION

- 1. Sensor
- 2. Converter



REMOTE VERSION

- 1. Sensor
- 2. Connection housing
- 3. Connection cables
- 4. Converter, wall mounting

MEASURING RANGES

DN (mm)	Range: Minimum (0,5 m/s) / Maximum (10 m/s)
10	0.14 ÷ 2.9 m3/h
15	0.3 ÷ 6 m3/h
20	0.5 ÷ 12 m3/h
25	0.6 ÷ 18 m3/h
32	1 ÷ 30 m3/h
40	1.8 ÷ 42 m3/h
50	3 ÷ 66 m3/h
65	5.8 ÷ 120 m3/h
80	8.9 ÷ 180 m3/h
100	11 ÷ 282 m3/h
125	20 ÷ 450 m3/h
150	30 ÷ 600 m3/h
200	50 ÷ 1100 m3/h
250	85 ÷ 1700 m3/h
300	110 ÷ 2400 m3/h
350	180 ÷ 3300 m3/h
400	220 ÷ 4200 m3/h
450	270 ÷ 5400 m3/h
500	320 ÷ 6600 m3/h
600	490 ÷ 9600 m3/h
700	680 ÷ 13500 m3/h
800	900 ÷ 18000 m3/h
900	1200 ÷ 22500 m3/h
1000	1450 ÷ 28000 m3/h
1200	2500 ÷ 40000 m3/h
1400	3000 ÷ 55000 m3/h
1600	4000 ÷ 65000 m3/h (9 m/s)

SELECTION DIAMETER ABACUS

