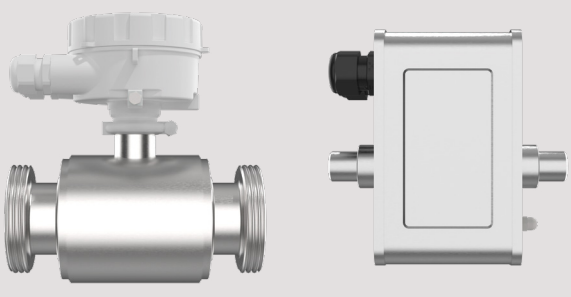
Water & Industry

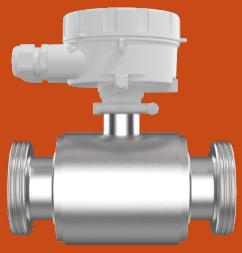
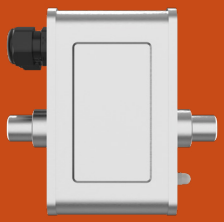
SMAG 103
Electromagnetic Flow Meter and Controller 2025



SMAG 103

Electromagnetic flow meter and controller

Product Overview

	SMAG 103 M	SMAG 103 S	SMAG 103 C
			
Size and connections	DN15 - DN2000	DN25 - DN100	DN6 - DN20
Nominal pressure [bar]	10 - 40	16	16

SMAG 103

Electromagnetic flow meter and controller

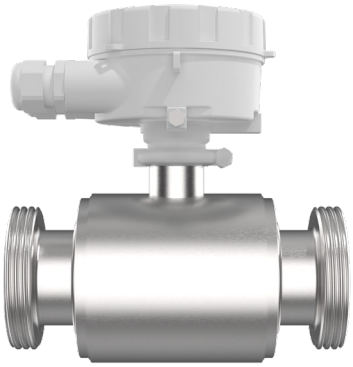
SMAG 103 is a professional electromagnetic flow meter and controller that's ideal for measuring conductive fluids, wastewater and other liquids across multiple applications. Built with high-grade materials such as Hastelloy C, carbon steel, Ebonite and PTFE, SMAG 103 withstands challenging conditions including liquids up to 180°C.

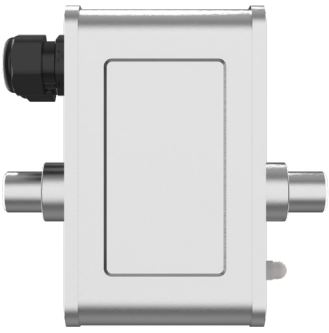
With application uses across water treatment, mining, energy generation and chemical production, SMAG 103 meets the needs of modern water-management systems and represents one of SEKO's most versatile solutions for high-precision measurement.

Applications

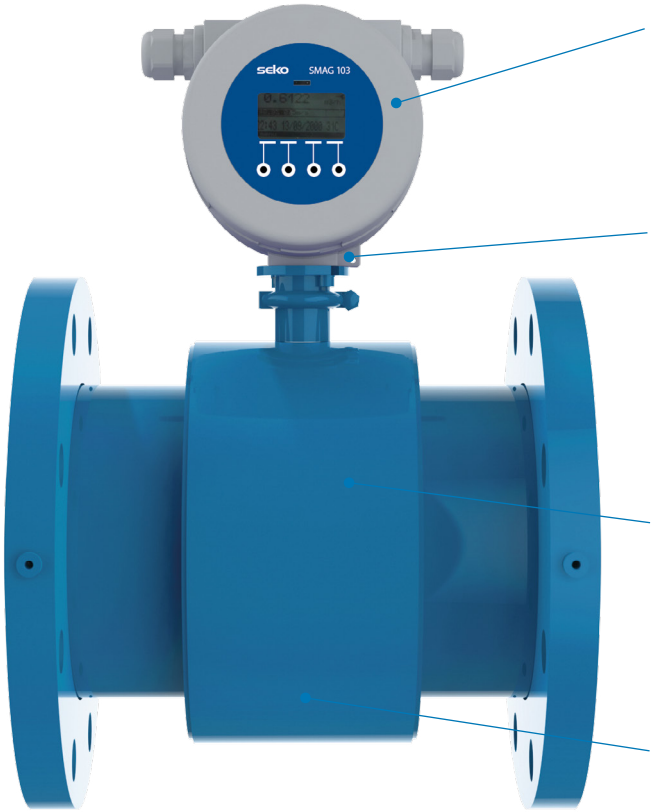
The versatile SMAG 103 is suited to multiple water-treatment applications, including:

- Water treatment
- Mining
- Energy generation
- Chemical production
- Wastewater treatment





Features & benefits



Municipal Water Treatment

- Sludge and water treatment

Industrial Processes

- Energy industry: generation and distribution
- Extraction industries: quarries and mines

Chemical Industry

- Control of civil and industrial wastes
- Chemical dosing control

Drinking Water

- Measurement of potable water

SMAG 103 Converter

The converter is the brain of the unit and it has been designed to meet all the requirements of modern water management systems. It supports extended functions which makes it perfectly suitable for measuring and billing in the civil, industrial and agricultural sectors and for flow measurement in residual water treatment.

Enclosure box	• Compact on the sensor or remote on support (up to 100 m; 30 m on battery) • Converter case: Epoxy-painted aluminium, IP68
Power supply	100 – 240 Vac ; 12 - 24 Vac/dc ; Battery powered and solar panel as an option
Output signals	• Analogue output: 4 - 20mA | Aux output: 24 Vdc | Pulses output: max 1,000 Hz | Duty cycle: max 50% only for positive flow rate | Digital programmable output • Negative flow indication • Status icons displayed and alarms recorded in the data logger • HART protocol as an option
Graphic display	LCD 128 x 64 pixels, visual area 50 x 25 mm, with backlight
Setting	Configuration can be performed in three different ways: 1. Via four push buttons on the front cover for setting of flow rate unit, time base, counter unit and measurement frequency; 2. Via main parameters setup, zero calibration, data communication and datalogger; 3. Via PC through RS485 Modbus protocol and IrCOM interface. The converter has three different levels of password protection.
Data logger	4 MB flash memory up to 200,000 lines of process datalogger (one line includes instant flow, two counters, date, time and temperature); 64 KB EEPROM, 2,000 lines of diagnostic datalogger (one line includes: date, time, temperature, error codes and user actions).

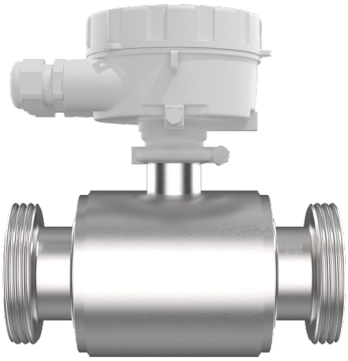
SMAG 103

Electromagnetic flow meter and controller

Introducing a measurement range of more than 1:1,000 without linearisation software. These kinds of performances allow very accurate measures on a wide flow-rate range and to count lower flow rates that, before, would have been reset because of the effect of the converters cut off. This flanged sensors series bases its operation on the Faraday principle, by which a conductor crossing a magnetic field generates a potential perpendicularly orientated to the same field.

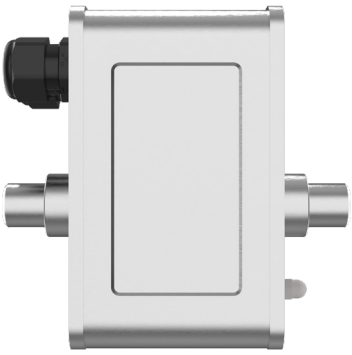
SMAG 103 M

Size and connections	DN15 - DN2000 (Flange EN 1092-1 or NSF/ANSI61)
Nominal pressure	10 - 40 bar (64 bar on request)
Lining	PTFE or Ebonite
Body material	Carbon steel with electrodes in Hastelloy C
Temperature of liquid	130°C separate version with liner in PTFE; 180°C separate version with liner in PTFE and high-temperature construction



SMAG 103 S

Size and connections	DN25 - DN100 (Triclamp, DIN 11851 or SMS1146 connections)
Nominal pressure	16 bar
Lining	PTFE
Body material	SS304 with electrodes in Hastelloy C
Temperature of liquid	130°C separate version with liner in PTFE; 180°C separate version with liner in PTFE and high-temperature construction



SMAG 103 C

Size and connections	DN6 - DN20 (Thread: male gas or NPT; DIN 11851 and ATC clamp BS4825)
Nominal pressure	16 bar
Lining	PTFE
Body material	SS304 with electrodes in SS316L
Temperature of liquid	130°C separate version with liner in PTFE; 180°C separate version with liner in PTFE and high-temperature construction

SMAG 103 key code

Name	
S3	S103

Model	
C	MUT 500
M	MUT 2200
N	Flanged Board PLUS
P	Flanged STD Board
R	MUT 2300
S	MUT 2400
V	MUT 7000

Version	
A	Remote Atex II 2GD EEX MB IIC T4
F	Remote @ 130°C
Y	Compact @ 80°C
P	Remote @ 180°C
Q	Compact @ 180°C

Diameter	
0006	DN6
0010	DN10
0015-2000	DN15 - DN2000

Pressure	
A	64 bar (PN64)
B	40 bar (PN40)
C	10 bar (PN10)
D	25 bar (PN25)
E	16 bar (PN16)

Coating	
1	Ebonite/Hard Rubber
2	PTFE
3	PFA

Fitting	
B	UNI EN 1092-1 (ex UNI 2223)
C	ATC TRICLAMP
D	DIN 11851
E	ANSI 150
F	ANSI 300
G	UNI ISO 228/1 (Male GAS threaded)
H	SMS 1146
L	Clamp BS4825
N	NPT (male)

Electrods	
1	AISI 316L
2	Hastelloy B
3	Hastelloy C276
4	Titanium
5	Tantalum
6	Platinum

Power Supply	
A	100 - 240 Vac
B	12 - 24 Vac/DC
E	Battery pack 12/24 Vac/DC

Accessories	
0	None
A	Special Packaging
E	Further Electrode (Empty pipe)

Electrical Output	
A	4 - 20 mA + Freq.
B	4 - 20 mA + ModBus RS485 + Freq.
C	4 - 20 mA + Hart + Freq.
D	4 - 20 mA + Profibus + Freq.
E	4 - 20 mA + ModBus RS485 + Freq.
F	4 - 20 mA + ModBus RS485 + Freq.+Hart

IP Grade	
1	IP67
2	IP68 (1.5 m only remote version)
3	IP68 (3 m only remote version)

Cable Lenght	
00	No Cable (only for Compact version)
05	5 meters
10	10 meters
49	49 meters (max value)

S3	M	Y	0015	B	2	B	3	A	0	E	2	00

Globally Present, Locally Active

Twenty-three national SEKO companies across six continents means that, wherever you are, you enjoy the same exceptional level of service as every SEKO customer around the world.

And an accredited partner distributor network allows us to provide local customer support in over 120 countries, so you benefit from region-specific knowledge and rapid delivery of goods as well as world-class after-sales service and technical assistance.

SEKO Hub

A world of SEKO in one

For everyone from buyers and engineers to end users, SEKO Hub is the ultimate all-encompassing platform that brings you to the heart of SEKO and gives you what you need when you need it.

Bringing together essential documents such as manuals, case studies, data sheets and brochures as well as tutorial videos, favourite products, an appointment booking system and so much more, SEKO Hub is a central personalised platform to revolutionise the way you work.

SEKO Hub is available online or via app, so you're never without it whether you're at work, at home or on the move. It's your home for the complete SEKO experience, so join SEKO Hub and make our world a part of yours.

seko.com