

# **SMAG 103**

Electromagnetic flow meter and Controller



Your Choice, Our Commitment

## Electromagnetic flow meters are volumetric flow meter which do not have moving parts.

Electromagnetic flow meters are ideal for applications including wastewater treatment or any conductive or water based dirty liquid. Electromagnetic flow meters generally do not work with hydrocarbons, distilled water, and many non-aqueous solutions.

Measurement is based on Faraday's Law which states that the voltage induced across any conductor as it moves at right angles through a magnetic field is proportional to the velocity of that conductor. It is independent of the density, viscosity, temperature and pressure of the fluid. The conductivity of the fluid must be greater than 5µS/cm.

#### Principle applications include:

- Sludge and water treatment
- Control of civil and industrial wastes
- Measurement of industrial process water
- Control of the chemical dosage
- Energy industry: generation and distribution
- Extraction industries: quarries, mines



### Product line



#### S103 M

Size from DN15 to DN2000 (Flange UNI 2223)

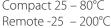
Pressure from PN10 to PN64

Lining PTFE or Ebonite

Material Body in carbon steel, electrodes in hastelloy C

#### **Temperature**

Compact 25 – 80°C







### SMAG 103 Converter controller

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

Enclosure Box	Compact on the sensor or remote on support (up to 100 m) Converter case Epoxy painted aluminum, IP 68
Power supply	100 – 240 Vac ; 12/24 Vac/dc
Output signals	Current active analogue output 4 – 20 mA
Digital output	Maximum pulses 1000 Hz duty cycle max 50% for negative flow Negative flow indication Cumulative alarm
Graphic Display	LCD 128 x 64 pixels, visual area 50 x 25vmm, with backlight
Setting	4 totalizers available (2 positive totals and 2 negative totals) with 4 push buttons for non-billing applications through IrCOM interface and dedicated software via RS485 MODBUS RTU protocol
Data logger	4 MB flash memory, 200,000 lines of data (one line includes instant flow, 2 counters, date, time and temperature)  64 kB EEPROM, 2000 lines of data (one line includes: date, time, temperature, error codes, user actions with changes made)

#### S103 S

Size from DN25 to DN100 (Triclamp or DIN11851)

Pressure from PN10 to PN40

Lining PTFE

Material Body in SS 304, electrodes in hastelloy C

Temperature

Compact 25 – 80°C Remote -25 - 130°C



#### S103 C

Size DN3 to DN20 (Thread Gas or NPT)

Pressure PN16

Lining PTFE

Material Body in SS 304, electrodes in SS 316 L

Temperature

Compact 25 – 80°C Remote: -25 - 200°C

### Your Choice, Our Commitment

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