# *ELECTROMAGNETIC FLOWMETERS*
## *S-MAG 100/200/300 SERIES FLOWMETER*

s-meter®
Flow Instruments

## SPECIFICATIONS

- Electromagnetic Flowmeters is a measurement instrument with high accuracy and automation that is used in many industrial applications.

- They have an easy-to-read backlit LCD display.

- It has pulse, 4-20mA, Frequency, Alarm outputs and RS-485 communication protocol.

- The liquid conductivity value for the standard measurement is ≥ 20 µS / cm, optional ≥ 5 µS / cm.

- Standard protection class is "IP67", optional "IP68" (Sensor ).

- There are models with different connection options such as flanged, wafer, food  connection.

## APPICATIONSS

- Measuring water, wastewater and polluted water,

- Measurement of caustic, acid and other conductive liquids in the chemical industry,

- In the food industry such as milk, juice in the measurement of hygienic liquids,

- In cosmetics and pharmaceutical industry, textile, paint, in paper production facilities,

- Tile sludge measurement in the ceramic industry,

- In automation systems where remote control of devices is desired,

- They can be used in applications where a certain amount of dosage is desired.

# S-MAG 100/200/300 SERIES FLOWMETER

S-MAG Series Electromagnetic flowmeters are designed for precise measurement of almost any type of conductive industrial fluid without pressure loss.

In accordance with the developing technology, S-MAG series flowmeters can be connected to centrally controlled automation systems and can be remotely controlled with the ModBus connection protocol.

S-MAG series flowmeters have 3 different models listed below according to their application places.

# S-MAG FLOWMETER TYPES

### S-MAG 100 Series Flanged Flowmeters

- It is the most demanded model in the industry and flange connections is in EN-1092-1 standard.

- The pressure classes; PN10 - PN16 - PN25 - PN40 can be selected according to the diameters.

- Liner options are H.Rubber, PTFE and PFA.

- Electrode options are SS 316L ,Hastelloy-C, Platinum, Titanium and Tantalium.

### S-MAG 200 Series Wafer Type Flowmeters

- As the "L" length of the Wafer series is short, it is preferred in applications with narrow installation space.

- These models have a 304 SS body material.

- Diameter options of these models are between DN10-DN150.

- Flowmeters are standard Hastelloy-C electrodes and Liner material is PTFE.

### S-MAG 300 Series Food Connection Flowmeters

- S-MAG 300 series flowmeters are used especially in hygienic applications in food and chemical industry.

- Connection and body materials of S-MAG 300 series flowmeters is SS 304.

- Electrod material is standard 316 SS and liner material is PTFE.

- Diameter options of these models are between DN25-DN80.

# S-MAG TRANSMITTER FEATURES

- The local flow meter indicator can be made Remote with its special kit. or an indicator with Remote can be Localized.
- The display screen is backlit LCD.
- The LCD display have 2 screens that can display the total, instant flow and flow percentage display from first screen and the positive total, negative total and flow rates on the second screen.
- Both indicator to provide comfortable reading according to the assembly, as well as the screen can be turned in different directions.
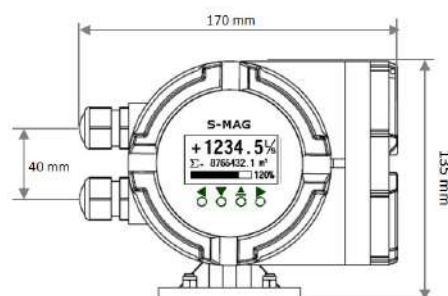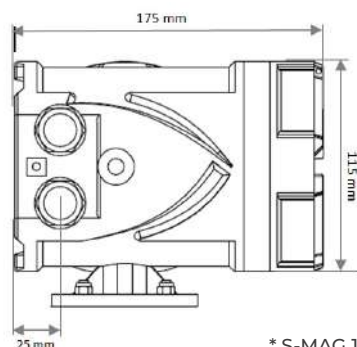
# TECHNICIAL SPECIFICATIONS

## TRANSMITTER

| LCD Display | 3 Lines, Backlit LCD Display |
|---|---|
| 1. Screen | Total / Flowrate / Flowrate Percentage |
| 2. Screen | Positive total / Negative Total / Velocity |
| Mounting Types | Local - Remote |
| Outputs | Pals / 4-20mA / Frequency / RELAY |
| Communication | RS-485 Modbus |
| Working Temperature | -40 °C / +90 °C (*) |
| Ambient Temperature | - 10 °C / +55 °C |
| Protection Class | IP67 |
| Supply Power | 110 - 220 VAC - / 18-36 VDC / Battery |

## SENSOR

| Liner Types | H.Rubber, PTFE, PFA | |
|---|---|---|
| Electrodes Types | SS 316L, Hastelloy-C , Platinum, Tantalium, Titanium | |
| Working Temperature | H.Rubber | -10°C / +80°C |
| | PTFE | -40°C / +130°C |
| | PFA | -40°C / +150°C |
| Pressure Options | PN6 / PN10 / PN16 / PN25 / PN63 | |
| Accuracy | ± 0,5 %,  Optionel ± 0,2 % | |
| Repeatable | ± 0,1 % | |
| Velocity Range | 0,3  - 10 m/s | |
| İletkenlik Sınıfı | 20 µS/cm,  Optionel 5 µS/cm | |
| Protection Class | Standard IP67,  Optionel IP68 | |
| Tube | 304 SS | |
| Body Material | Standard: Carbon Steel,  Optional : 304 SS / 316 SS | |
| Connection Types | Flange - Wafer  - Food connection | |

* When choosing a flow meter, also take into account the temperature of the Sensor body .

* S-MAG 100 Transmitter Dimensions

# FLOW CHART

## MIN. AND MAX. FLOWRATES

| Size | Flowrate [m3/hour] | |
|---|---|---|
| DN   [mm] | Min. Flowtrate [0.3 m/s] | Max. Flowrate [10m/s] |
| 10 | 0,08 | 2,8 |
| 15 | 0,2 | 6 |
| 20 | 0,4 | 11 |
| 25 | 0,6 | 18 |
| 32 | 1 | 30 |
| 40 | 1,5 | 45 |
| 50 | 2,5 | 70 |
| 65 | 4 | 120 |
| 80 | 6 | 180 |
| 100 | 9 | 282 |
| 125 | 15 | 440 |
| 150 | 20 | 635 |
| 200 | 35 | 1130 |
| 250 | 54 | 1750 |
| 300 | 80 | 2500 |
| 350 | 105 | 3450 |
| 400 | 136 | 4500 |
| 450 | 172 | 5600 |
| 500 | 216 | 7000 |
| 600 | 310 | 10000 |
| 700 | 420 | 13800 |
| 800 | 545 | 18000 |
| 900 | 690 | 22700 |
| 1000 | 850 | 28000 |