

Level meter

MAGO - SG401





A cockpit of steel, two floats and a small electronic circuit. Nothing could be easier for the realization of the new level meter MAGO SG401.

MAGO is an absolute level meter, which bases its operation on the principles of magnetostriction. This allowed us to create an instrument suitable for all small vessels, with a maximum height of 5 meters.

The instrument has been designed and engineered to ensure reliable operation in all conditions, no mechanical parts in motion, the float moves with virtually no contact along the guide tube, is virtually not required maintenance.

The main applications of this instrument are the small tanks for food liquid, service areas, tanks with products under pressure such as LPG and, more in general, any measurable liquid.

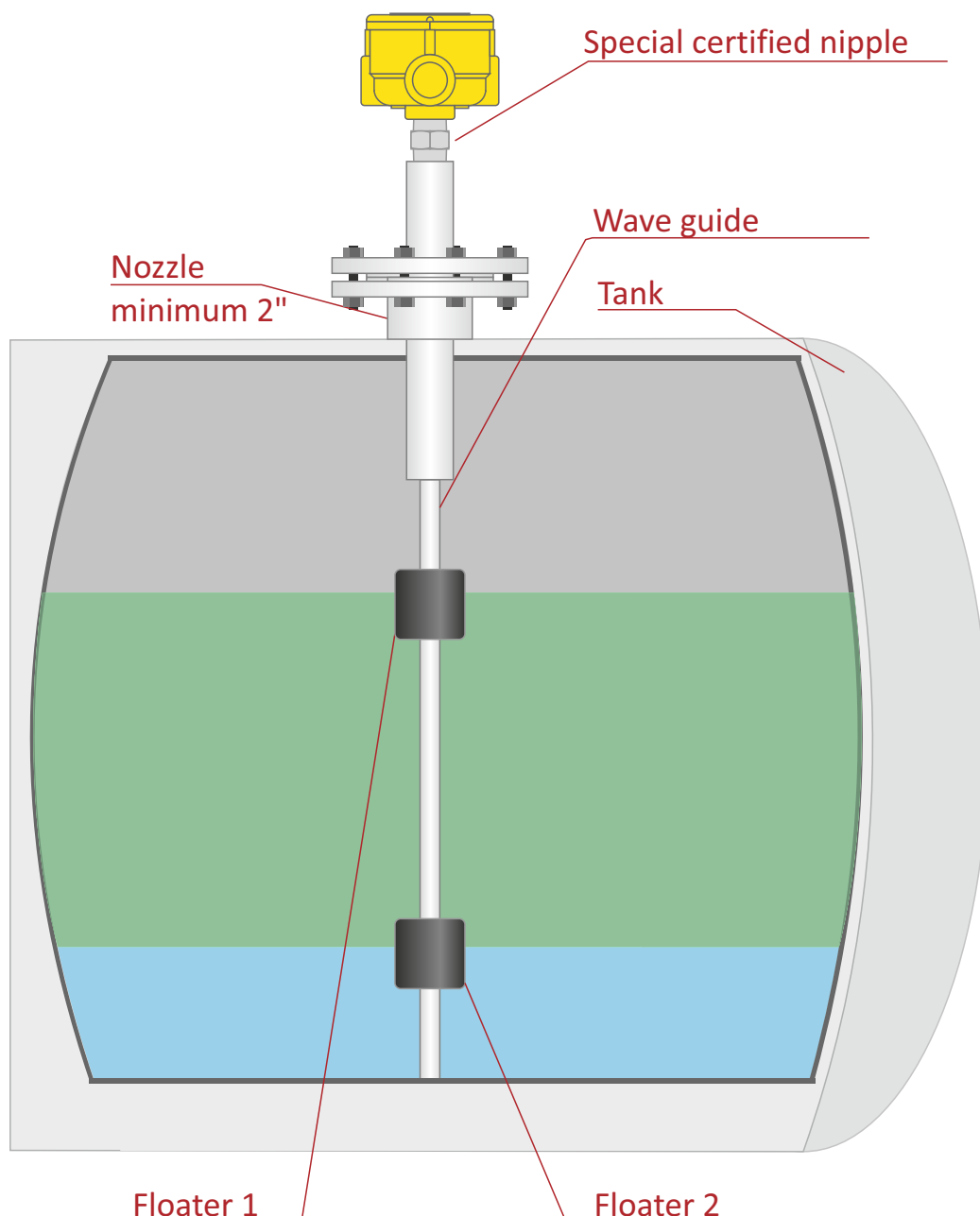
Complete separation between the cockpit and head, with a special nipple certified, possibility of replacing the internal probe without removing the guide tube and for the pressure tanks, is not necessary remediation.

High energy efficiency: consumption of less than 0.6 W, only 5Kwh for a full year of operation!

The experience gained over the plant has allowed us to create an easy to install and use. 4 wires are sufficient to activate the instrument and start to monitor the storage tank.

Typical installation

MAGO - SG401



Characteristics

- Temperature up to 4 elements
- Communication MODBUS RS485 or Current Loop Segi standard
- Interphase product measurement
- Volumetric table saved inside instrument

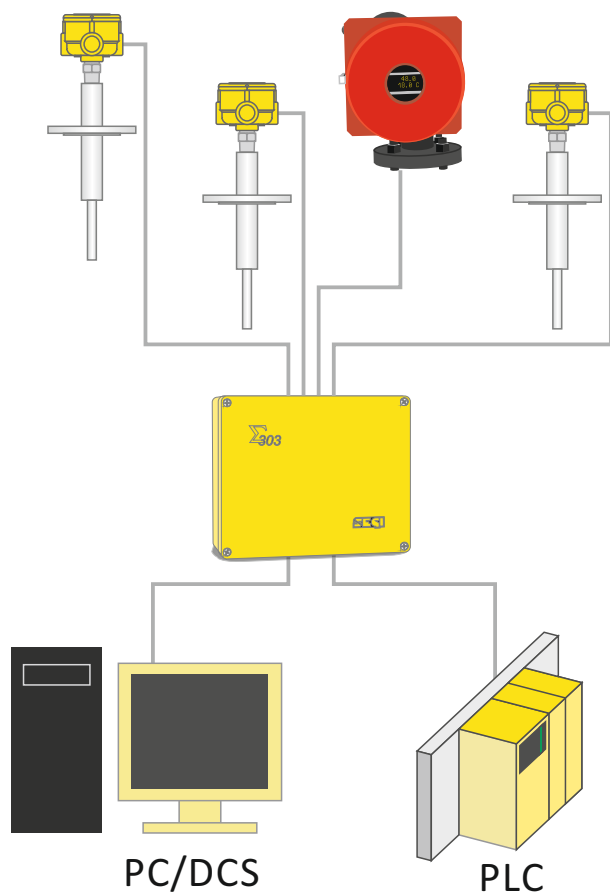
Optional outputs

- 4:20 mA proportional to the level

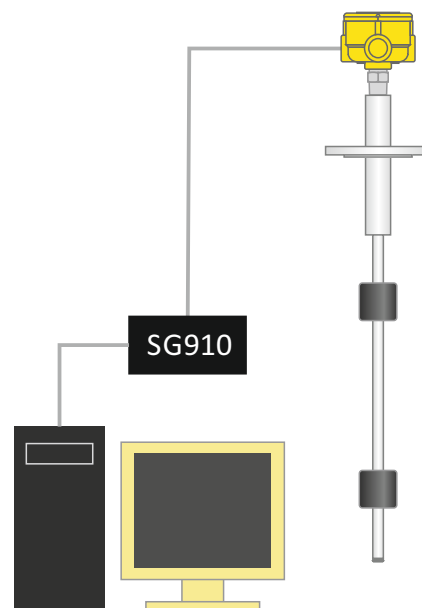
Electric connection MAGO - SG401



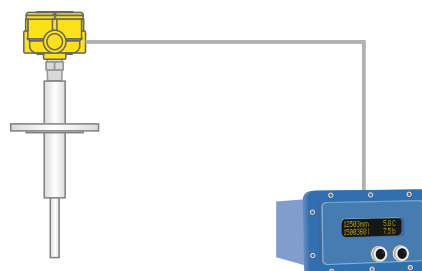
Connection with SEGI concentrators
also on hybrid structures



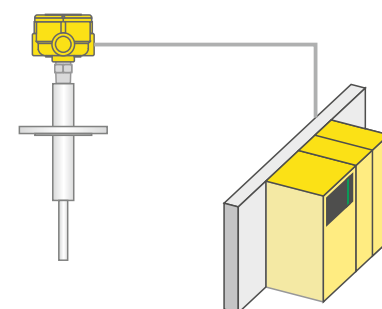
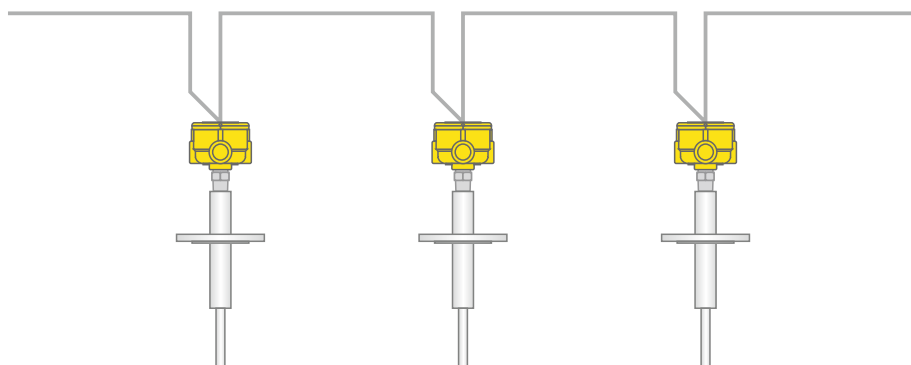
Connection directly to PC



Connection directly to SG199



Connection with bus
RS485 MODBUS protocol



Direct connection to PLC
with MODBUS protocol
or 4:20 mA signal

Technical characteristics

MAGO - SG401

Supply

Power supply:

10...30 Vcc, 0,6 W

Cable entry:

1 or 2 entrances $\frac{3}{4}$ " GK - EN 60079-1 or M20 x 1,5

Measuring element

Sensitive element:

Floater 50mm diameter in nitrile rubber foam (Spansil ®) or stainless steel AISI 316

Measuring range:

0,5 to 5m

Materials

Head

Cast aluminum silicon magnesium Mg GALSI 70.3

Process side:

AISI 304L o 316

Flanged process connection:

DN50-PN6-UNI EN 1092-1

DN50-PN16-UNI EN 1092-1

DN50-PN40-UNI EN 1092-1

2" – 150 ANSI B16.5 – ASME B16.5 – Class 300lbs

2" – 300 ANSI B16.5 – ASME B16.5 – Class 300lbs

Other connections on request

Sliding or fixed:

2" BSP - 2" NPT - other joints on request (minimum Ø 52mm)

Operating pressure:

max 25 bar

Mechanical head protection:

IP66 sealed to the hose

Ambient temperature:

-50...+55°C

Certificates

Protection mode:

Ex-d IIB-T6 group II, category $\frac{1}{2}$ G (IMQ certified 10 ATEX 015)

Level performances:

Ambient temperature -50...+55°C

Resolution: $\pm 0,1$ mm su 5000mm

Hysteresis: ± 1 mm su 5000mm

Temperature performances:

Resolution: $\pm 0,1$ °C

Measuring range: -50 ÷ +120°C

Input/Output

Trasmission:

Current loop SEGI procol

RS485 protocol SEGI and Modbus

Input:

Temperature up to 4 sensors

Output:

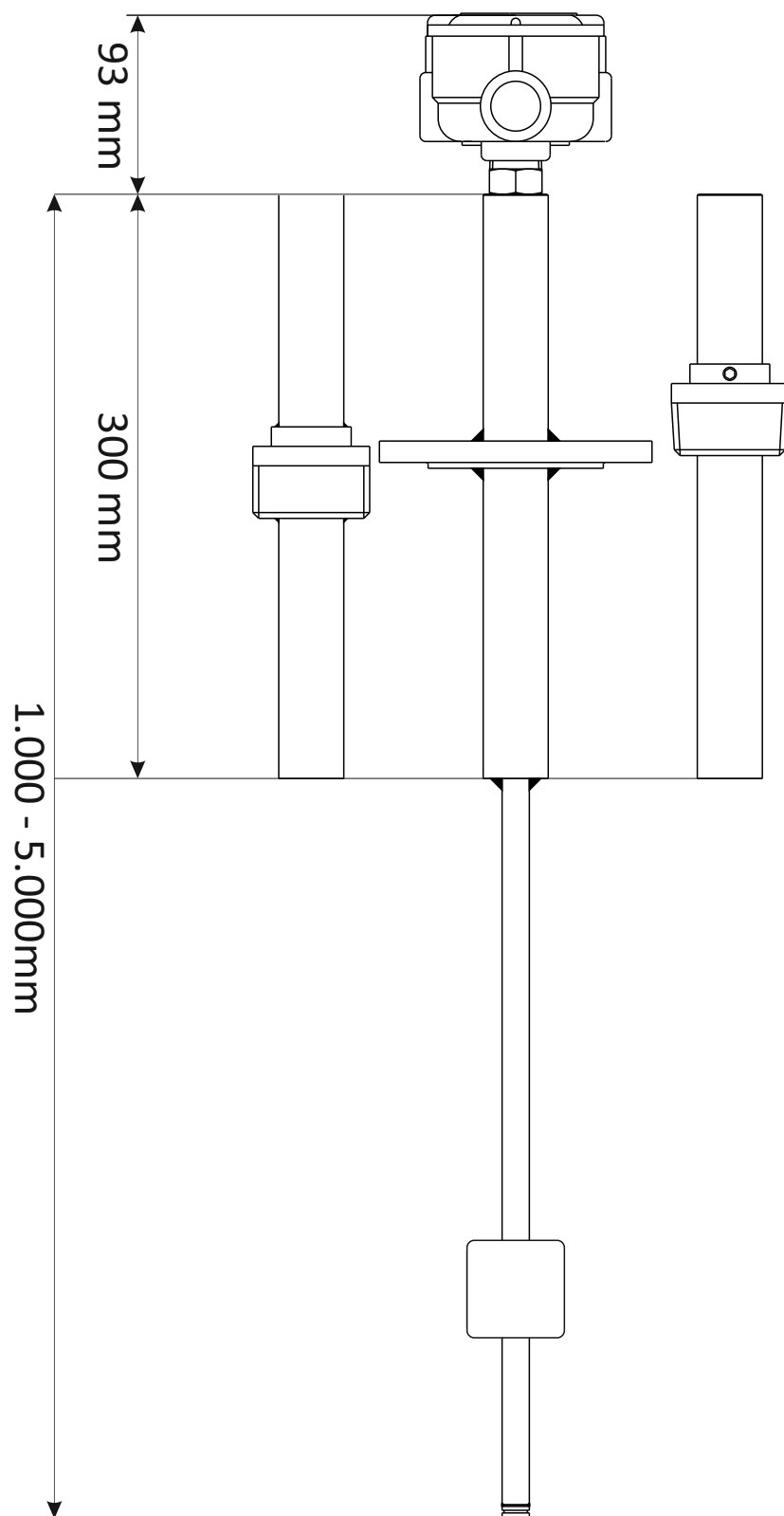
4 ... 20mA analogue proportional to the level (only in combination with serial output RS485)

Configuration:

Total by serial line

Dimensions

MAGO - SG401





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