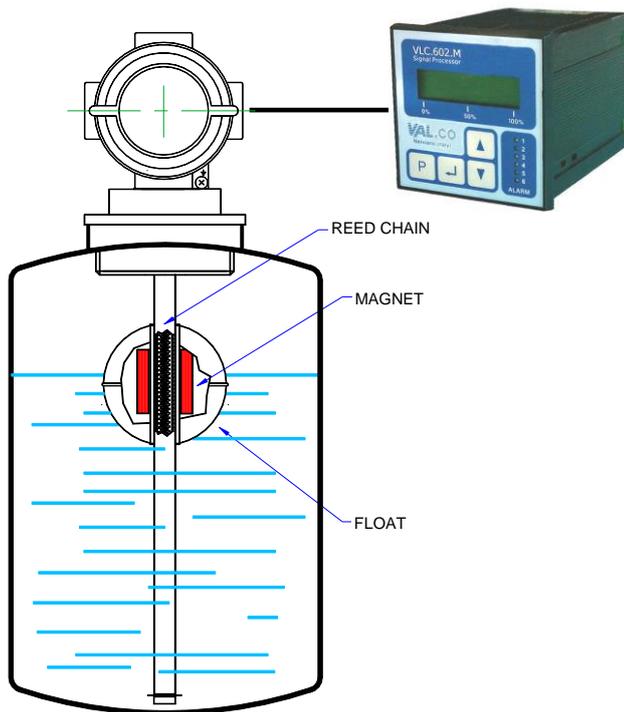


TECHNOLOGY



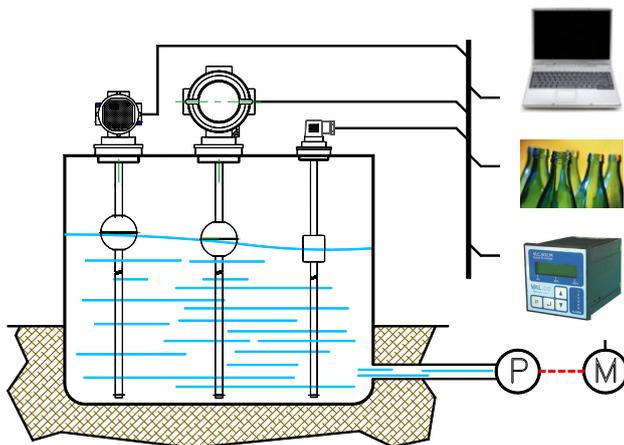
Float

A float equipped with one or more magnets, driven by a shaft, follows the variation of the liquid level and varies the value of a resistive chain by actuating a series of electrical contacts positioned inside of the guiding rod.

Resistive chain with reed contacts

A chain of resistors and electrical contacts is distributed over the entire length of the level to be measured. The magnetic float, which follows the level of the liquid, determines the closure of the electrical contacts short-circuiting the associates resistances. The value of resistance so measured is directly proportional to the level of the liquid. The used contacts are constituted by two blades of rhodium (material with high thermal characteristics and hardness), sealed in a glass bulb which prevent the oxidation. The number of mechanical and electrical operations, that the **reed contacts** are able to perform, in the described system, is virtually unlimited.

FIELDS OF APPLICATION

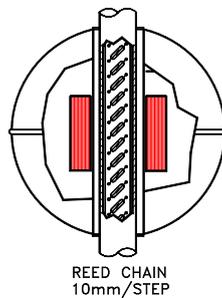
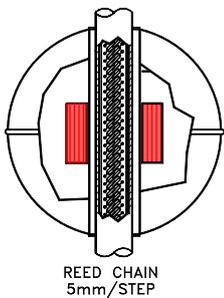
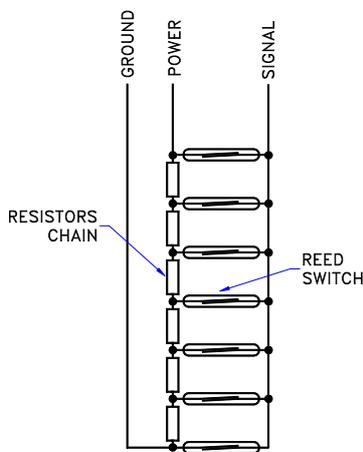
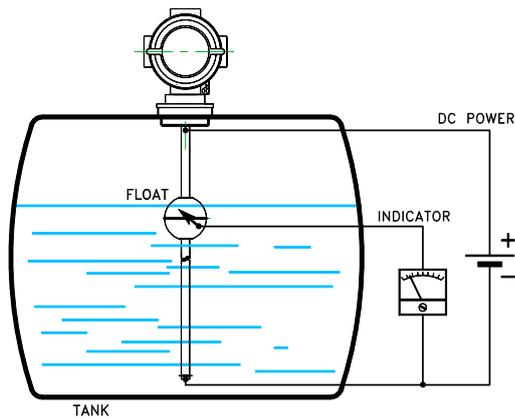


- Precise and constant monitoring of the level, insensitive to presence of foams, dielectric variables and conductivity.
- Remote indication of the level, the distance between the sensor and the remote instrumentation is virtually unlimited.
- Linear Measurement of the level, independent of the shape of tank.
- Can be mounted externally to the sensor tank using a bypass pipe.
- Centralized storage plants.
- Control of drinking water and fuel on boats.
- Centralized lubrication plants.
- Water treatment plants.

ADVANTAGES

- Constant and precise indication of the level, locally or remotely.
- Device with simple and rugged design.
- Sizing of the instrument to individual needs.
- Long service life
- Maintenance free device

SYSTEM DESCRIPTION



Construction

The system is built with high quality materials. The process connection, threaded or flanged, may be required in accordance with the needs of the application. The guide rod of the float is obtained from drawn pipe, without welding, stainless steel or brass. The used floats are made in stainless steel or in spansil (Butadiene-Acrylonitrile Copolymer with closed cells). The measurement chain is sealed inside the guide rod, the only moving part of the system is the float.

Operation

The system contains, along its entire length, a chain of resistors and electrical contacts positioned at intervals of 5, 10 or 20 mm. At the ends of the resistor network is applied a constant voltage. The reed contacts, connected to the resistors, are magnetically actuated by the magnetic float. The position of the float, dependent on the level of the liquid, determines the closing of the contacts and the change in the resistance value of the measurement chain. The measure is proportional to the position of the float, and then to the level of the liquid to be monitored.

Precision

The contacts of the measuring chain are positioned at intervals of 5, 10 or 20 mm on a dedicated printed circuit board. The magnetic float always intercepts a number of contacts equal to 2 or 3 depending on the measuring step (resolution). The contacts are closed in sequence to guarantee the continuity and the precision of the signal which is equal to the pitch measurement, as shown in the drawing.

TECHNICAL DATA

Concept	Magnetic float
Process connection	3/8" ÷ 2" DN25 ÷ DN125
Type of connection	Threaded Flanged
PN	PN3 ÷ PN40
Max. temperature	150 °C
Output signal	Resistor - 4 - 20 mA
Measuring length	On customer specific - max. 6000 mm
Materials	Brass - Stainless steel - PVC - PVDF

EXECUTIONS

■ IP65 protection

Cable output - DIN 43650A plug output
Cast aluminum housing epoxy painted.

■ ATEX II 1/2G Exd IIC T5/T6

Cast aluminum housing epoxy painted.

■ ATEX II 1/2G Exia IIC T4/T5/T6

Cable output - DIN 43650A plug output
Cast aluminum housing epoxy painted.

■ IP65 protection - Fire prevention MI.SA

Cast aluminum housing epoxy painted.