

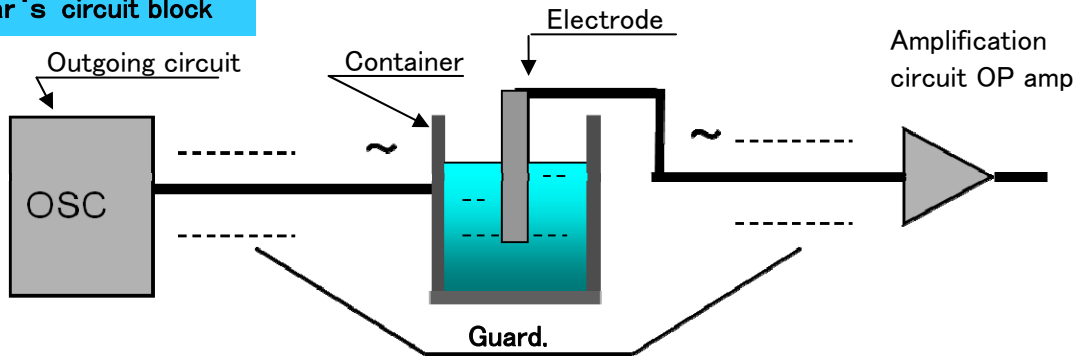
17. Principles and the features of level measurement with Myster

All Purpose Electrode-Type Level Switch Myster series enables to measure from ultra-low temperature liquid gas to high-temperature or high-pressure liquids, utilizing the high-frequency wave principles.

Measuring principles

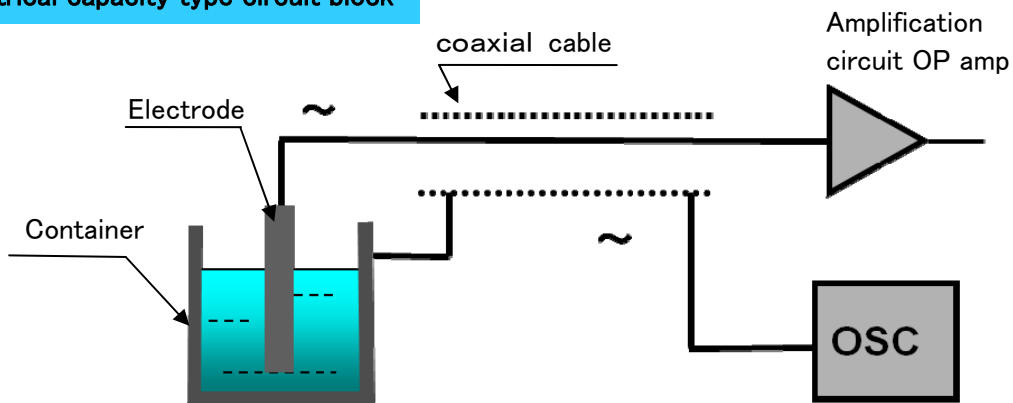
There is no electrical circuit on its electrode head and capable of measuring the height of liquid surface consecutively without any influence of cables.

Figure 1. Myster's circuit block



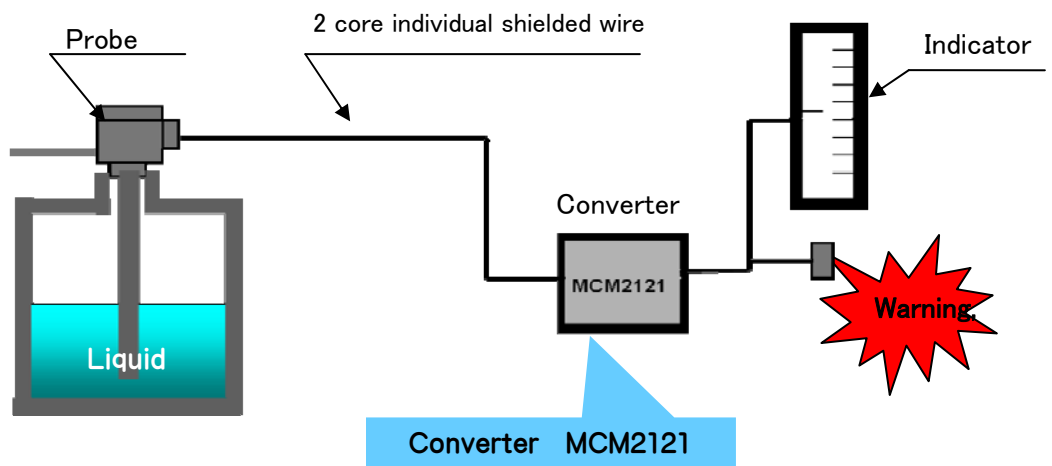
To measure only a part of admittance which is not guarded, only capacitance between the container and the electrode can be measured. Even very small changes can be measured with a high degree of accuracy. (Primary content 0p F)

Figure 2. Electrical capacity type circuit block



By measuring capacitance between the container and the electrode via a coaxial cable, capacitance in the coaxial cable can also be measured at the same time. (Primary content more than 30 pF) Changes in the coaxial cable cause an accidental error.

Equipment configuration



Probe

→ Structure → 1) To isolate from the container electrically, a lot in the electric part and a probe are covered with isolators.
2) It is manufactured from metal.

→ Type → 1) It has to be shorter than 4 m with lot probe.
2) When the measuring length is long, or the distance to the top of a container is small use a rope probe shorter than 50 m.

Employed cable

→ 1) Uses 300 meters of 2 core individual shield.
2) When a temperature of the terminal position is low, or high use teflon isolating cable.

Converter

→ 1) Uses Myster MYT2121.
2) To measure conductive liquid, MYM3110 can also be used.

Indicator

→ Please use an output from the converter with each company's indicator, recorder and computer.

Features

- ① There is no electrical circuit on its probe head and can be installed in places at ultra-low or high temperature.
- ② Capable of measuring from 0p F, and can operate with a small electrode.
- ③ By utilizing an electrical guard shield, measurement without any influence of environment is accomplished.
- ④ Even when liquid type has been changed, using the reference probe promises measurement with a high degree of accuracy.

Application examples

