

18. Features of level measurement with Mystar

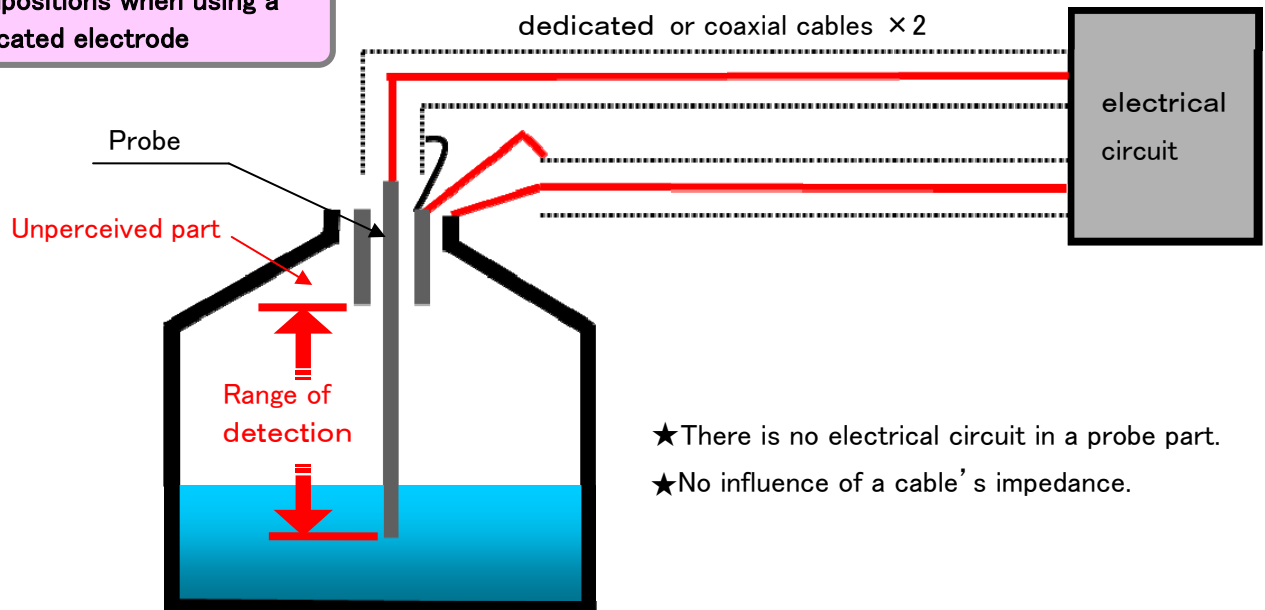
All Purpose Electrode-Type Level Switch Mystar series maintains the features of conventional electrode-type level switches, but also redeems their downsides.

Features

- ① Accepts a wide temperature range from -273°C to $+400^{\circ}\text{C}$
- ② Accepts High-pressure: Accepts many conditions such as vacuum, or high-pressure (200kg, cm^2 etc.)
- ③ Only small influence of adherence. There will be no influence of adherence on the root of the sensor.
- ④ Sanitary structure. Sanitary structure is also OK. With the structure for isolation provision which has troubles with thermal shock etc., there will be no trouble with OPI cleaning.
- ⑤ Measurement with a high degree of accuracy: Can measure from admittance 0.
- ⑥ From small type to Large type ($\phi 3$ to $\phi 200\text{m}$), a wide range of sensors are available.
- ⑦ Caustic liquid: Capable of measuring caustic liquids.

Principles, Compositions

Compositions when using a dedicated electrode

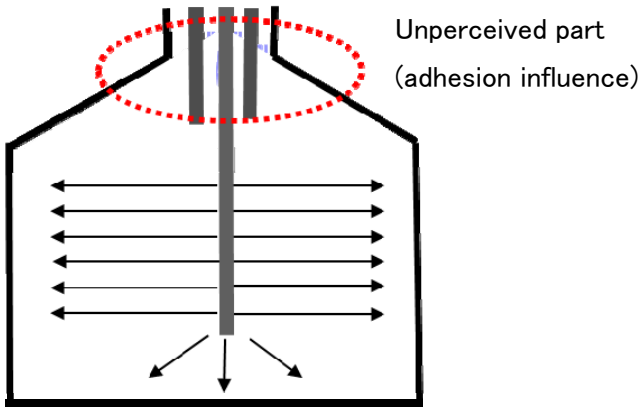


Applications

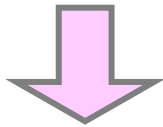
- ① Liquefied gas: Suitable for level measurement of ultra-low temperature and high-pressure objects such as liquid nitrogen, liquid oxygen, liquefied hydrogen, LNG etc.
- ② Feedback tank: Suitable for level measurement within containers which becomes ultra-high temperature and high-pressure.
- ③ Molten metal: measures the distance to liquid and convert it to a level, by using the electrode plate which does not contact the liquid.

Comparison with capacitance of Myster

Myster's measurement method

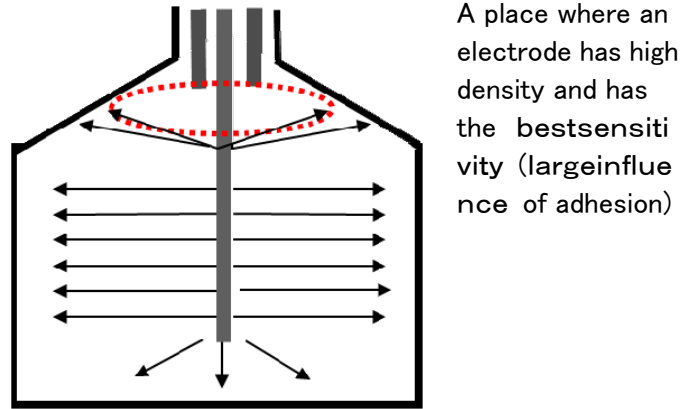


Electromagnetic lines are in parallel

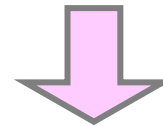


No influence of the upper part adhesion.

Measurement method of capacitance



Electromagnetic lines are dense with an isolated part on the base of the container,



which caused a large influence of the upper part's adhesion.