

Teflon Protective  
Liquid Detection Sensor

**COP-01 - 02 - 05**

**All fluorocarbon polymer & it is able to be detected even chemical**  
**Detecting both upper limit and lower limit with a piece of sensor (COP-02)**  
**5 points are detected with one piece of sensor (COP-05)**  
**Self-contained circuit, amplifier unit is unnecessary**

**Small size-φ 6**  
**Excellent chemical properties -PFA**  
**Custom made is possible**

### Feature

It is able to detect liquid directly and fully covered with fluorocarbon polymer (PFA).

Whole optical liquid sensor is covered with fluorocarbon polymer which is excellent chemical and oil resistance. Therefore, liquid is not easy to be stuck and you can use very safely.

**Metal parts are not used at a wetted part.**

Not to mention a lead wire, wetted part is all composed of fluorocarbon polymer.

This is why, it is safety.

**Long life span**

Since this sensor has not got mechanism part, it is excellent long lasting.

**Possible to use into the water**

It is able to detect not only upper limit level but also lower limit level and only using a piece of sensor can detect both upper and lower limit. (2 points type)

**Small Size**

It is possible for a piece of sensor to be loaded many optical elements and also, amplifier unit is unnecessary. Therefore, it is not taken up much space.

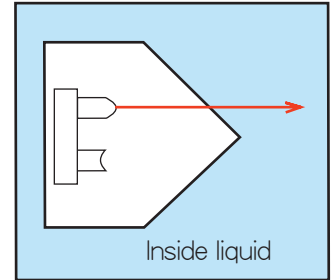
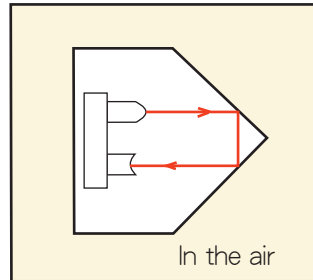
**Arbitrary setting of liquid measurement**

By changing fixed position of a cable, you can set the measurement liquid arbitrarily.

### Detection

When a detection part is in the air, the light radiated from light emission element reflects then back to the original direction because of big refractive difference between fluorocarbon polymer and the air.

On the contrary, when a detection part is in a liquid, the light radiates almost all to the liquid and does not back to original direction because of small refractive difference between fluorocarbon polymer and the liquid. By making use of this character, you can detect whether liquid exists or not



### Specification

Type	COP-01, -02, -05
Detection Object	Liquid (There is a case that is unable to detect the color of Milk-White)
Repeat	Less than 1mm (The case of water)
Used Temperature	-15°C ~ 75°C
Length of cord	Standard 1m (MAX 10m)
Material	Fluorocarbon(PFA): Wetted part
Power	DC5V~ (For others, custom made is available)
Output	1 ~ 5point
Control Points	NPN open collector

### Examples

- Level detection of hydraulic fluid
- OIL injection check
- Whether washings exist or not
- Level detection of a medical fluid tank
- Detection of waste liquid tank when it is filled with
- Detection of battery liquid
- Level detection of pure water
- Level detection of liquid inside a test tube