

# 東横化学

TOYOKO KAGAKU CO., LTD.

Kawasaki, Kanagawa, Japan

CE Mark Compliance   
UL Recognized Products   
EU-RoHS Compliance 

## Leak Sensor

# RS-1500

## Series

### PNP Output Configuration

**Quick** Liquid Detection by optical-electric method  
**Wide applications** for many liquids without adjusting  
**PNP** Configuration Transistor Output Model is Available



Detection by Optical-Electric Method

Easy Installation and Resetting

No Adjustment Required by the Liquid

RS Series sensors can detect a small drip of the liquid. This provides the soonest detection by the unique absorption paper method which draws the liquid into the detection area of the sensor instantly.

Even though, the paperless type of the leak sensor is also available for the variety of the situation of the use point.

RS Series Sensor is consisted with many kinds of models as the large product family.

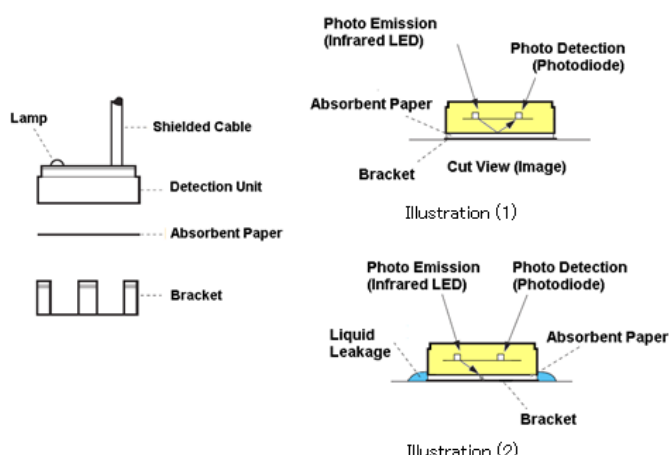
## Basic Composition and Detection theory

The Detection Unit contains both emission and recipient electric device in its circuit, and these dynamically apply the optical electrical signal accessing continuously.

The adsorption paper reflects the light then photodiode receives most of the emitted light energy from LED. See illustration (1).

Once the very small droplet of the liquid is adsorbed by the paper, the paper itself becomes transparent, and to lower reflected optical energy to be reaching towards the photodiode. See a illustration (2).

This energy difference gained by a photodiode between them is a principle of the optical electric method to distinguish the status the liquid existing, or not.



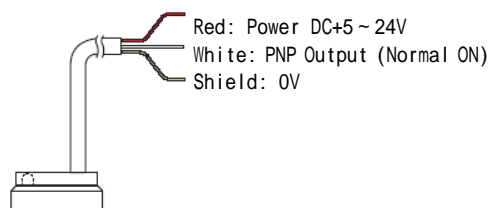
## Wiring Instruction

The sensor has a 2-cored cable with shield.

Red and Shield wires are for the power source.

The White wire is an output PNP configuration that puts out of 'ON' signal during normal condition, and 'OFF' signal when the alarm happens. This Output can draw electricity 50mA maximum.

The power source can be acceptable within the range of DC5V to DC24V.



## Specification

Model	RS-1500FA	RS-1500PA	RS-1500FAP	RS-1500PAP	
Voltage	DC24V (+/- 5%)				
Current	20mA or below				
LED Display	Normal: Green, Leakage: Red				
Output	PNP transistor open collector, 50mA max, (normal: ON)				
Ambient Temp.	-10 ~ 60				
Material	Case	PFA	PP	PFA	PP
	Cable	FEP	HT PVC	FEP	HT PVC
	LED	epoxy resin (embedded in the case)			
Cable	2 core cable, shielded, 2m length				
Water Protect	Sealed (IP67 Equivalent)				
Weight	approx 55g				
Bracket	P/N-6417, -6418, -6419		P/N-6416, -6420B		
Accessory	Absorbent Paper (10 sheets)		No Absorbent Paper Needed		



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