

東横化学

Quick Detection

for the variety of Liquid,  
even low viscosity,

Comfortable and Safety

Job availability

Liquid Leak Sensor

RS-3000  
RS-3500

Series

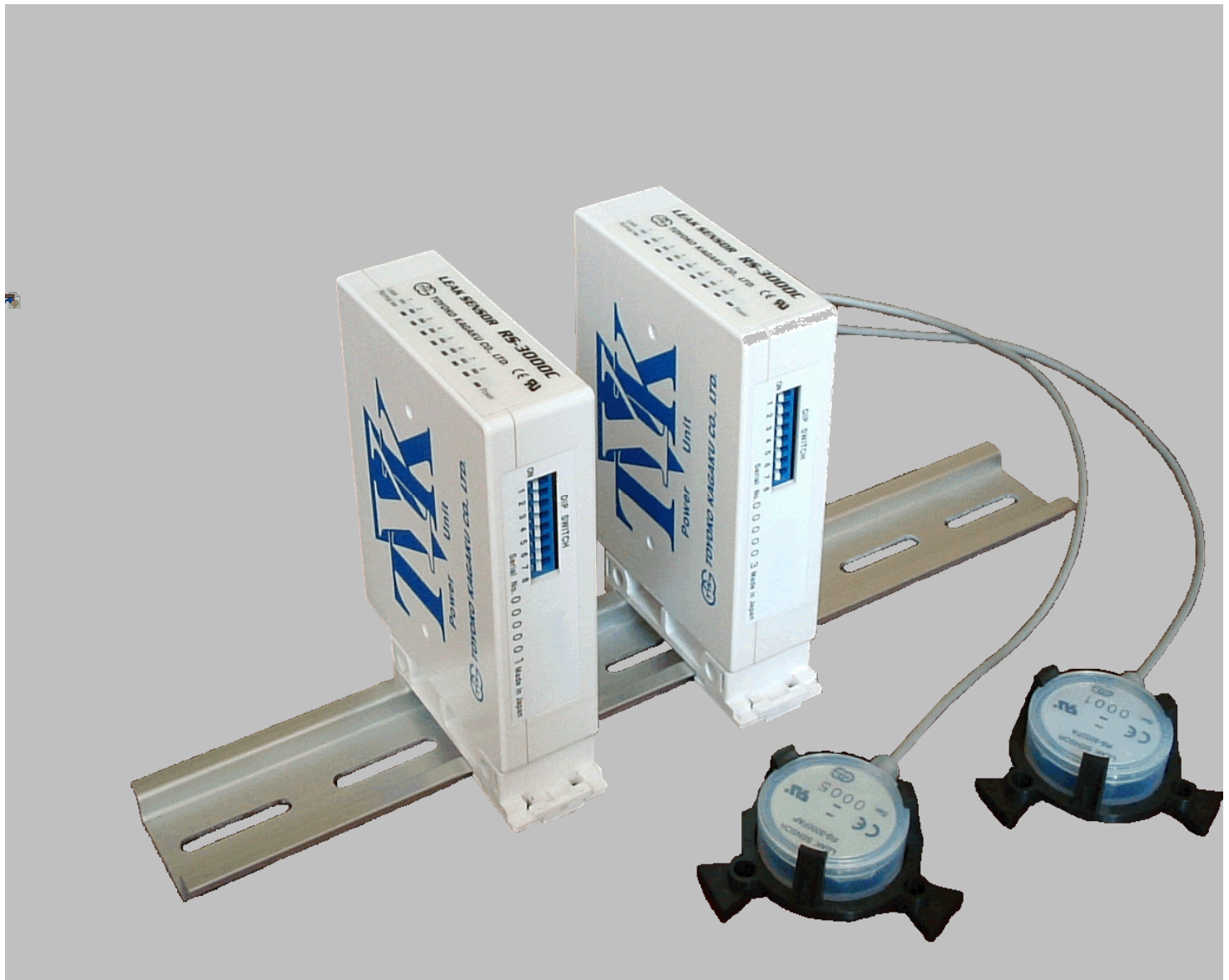
CE Mark Compliance



UL Recognized Products



EU-RoHS Compliance



# ***RS-3000, 3500 Series***

RS-3000/3500 series have been developed for detecting liquid leakage with its versatile photoelectric principle. Adding to our conventional RS-1000 and RS-2000 series, RS-3000/3500 expand its ability to enable even lower viscosity liquids by its new design of the sensing area allowing wider space for reaching the liquid far inside of detecting point of the sensor.

RS-3000/3500 series can provide wide range of the application for variety of liquids, such as acids, alkalis, organic liquids, mixtures for any kinds, and for small or large volume of liquid leakage at a time, or spreading out as an accidental situation.

RS-3000/3500 series give versatile layout design by its space-saving compact size and artificial design. The vertical space required in place has been reduced a lot.

RS-3000/3500 series include a new sophisticated control unit of RS-3000C/3500C for its convenient connector wirings features with the power supply, one output relay contact which is controlled as the logical OR system with all the connected inputs.

## **FEATURES:**

- Quick detection for low viscosity liquid, like a certain coolants for circulation system.
- Output of the control unit is NC contact of relay, which is kept 'ON' during the signal is no liquid detection and the sensing device works well. This output feature makes fit with fail-safe architecture.
- Compact in size of the control unit, and its connector wiring feature helps easier and reliable wiring job.
- The Control unit has DIN rail installation device without auxiliary separate parts.
- RS-3000/3500 series also provide diagnostic feature, as alarming its wrong position of a detection units, or wiring cut between the sensor unit. This alarm, same as the leakage alarm, makes the operator to find the failure position at the system immediately and correctly.

# Specification

## Detection Unit



RS-3000FA  
with Bracket P/N-6440



RS-3000FAP  
with Bracket P/N-6430

Model	RS-3000FA	RS-3000FAP	RS-3500FA	RS-3500FAP	
Voltage	DC12V to DC24V (±10%)				
Current	20mA or below				
LED Lamp Display	Normal Status: Green Leakage Alarm: Red Wrong position Alarm: Red				
Output	NPN transistor open collector Normal: ON, Alarm: OFF 50mA max		PNP transistor open collector Normal: ON, Alarm: OFF 50mA max		
Ambient Temp.	-10 ~ 60°C				
Materials	Case	PFA			
	Cable	FEP, 3-wire sheath			
	LED	Epoxy resin (embedded in the case)			
Water Protect	Sealed, equivalent IP67 (IEC)				
Weight	Approx. 40g				
Absorbent Paper*	Use P/N-6411	Not Use	Use P/N-6411	Not Use	
Bracket	PVC	P/N-6440	P/N-6430	P/N-6440	P/N-6430
	S.S.	-	P/N-6716	-	P/N-6716

\*Do not use Absorbent Paper, P/N-6411(-R), which has a large open area, not for RS-3000 series.

Detection Unit can be used either with a Control Unit, or without it as a standalone application.

## Control Unit



RS-3000C

Model	RS-3000C	RS-3500C
Voltage	DC24V (±10%)	
Current	200mA or below	
Type and number of Input for Detection Unit	NPN Type Only, up to 8ea Detection Units	PNP Type Only, up to 8ea Detection Units
LED Lamp Alarm	Independent Display for each Input (LED Green /Red x 8 points) Normal Status: Green, Leakage or Wrong Position Alarm: Red	
Output	Relay contact x 1 ea Normal Status: closed Leakage or Wrong Position: opened Power Failure: opened	
Output Capacity	DC24V, 1A (resistance load)	
Ambient Temp.	-10 ~ 60°C	
Case Material	ABS resin	
Weight	Approx. 100g	
Wiring Connection	Input: Connector x 8 ea (insert-locked) Power/Output Connector x 1 ea (insert-locked) *No special tool for the connector is required.	
Installation	Snap-on to DIN Rail, or screwed on the base plate.	
Detection Unit	RS-3000FA, RS-3000FAP	RS-3500FA, RS-3500FAP

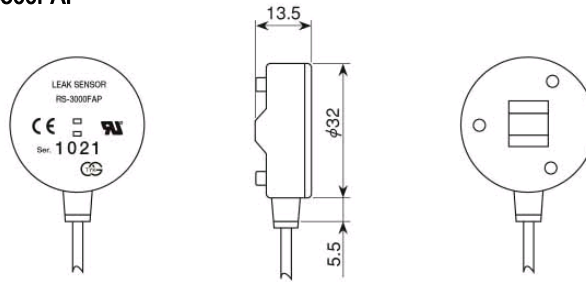
The Buzzer Leak Sensor of RS-3000FAP-BZ and RS-3500FAP-BZ are also fit with this controller  
For details, please refer to the brochure of the Buzzer Alarm sensor separately.

\*The applicable connector to the Unit is "e-CON" compatible, P/N XN2A-1430, Omron.

# Model and Dimensions (length: mm)

## Detection Unit

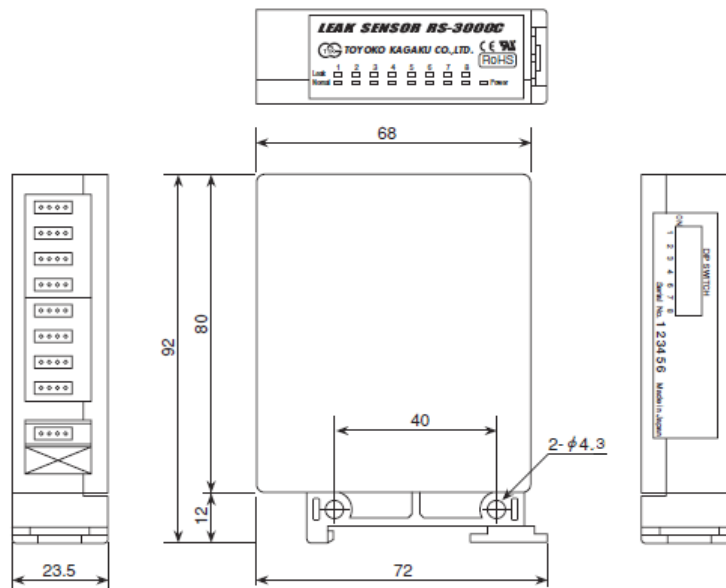
RS-3000FA/RS-3000FAP  
RS-3500FA/RS-3500FAP



RS-3000FA/FAP and RS-3500FA/FAP are the same size and shape to the above drawing.

## Control Unit

RS-3000C  
RS-3500C



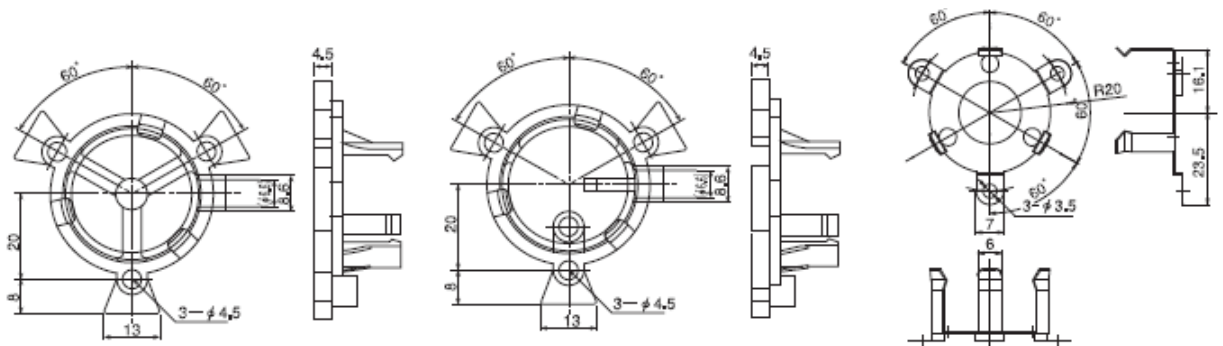
RS-3000C and RS-3500C are the same size and shape to the above drawing.

## Bracket

P/N-6440(PVC)

P/N-6430(PVC)

P/N-6716 (stainless steel)



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東横化学

TOYOKO KAGAKU CO., LTD.

Kawasaki, Kanagawa, Japan

# Buzzer Alarm Liquid Leak Sensor

## RS-3000/3500 FAP-BZ



**Buzzer** alarms liquid leakage  
to enable a swift and clear  
treatment at correct point



**Sound  
Alarm  
Featured**

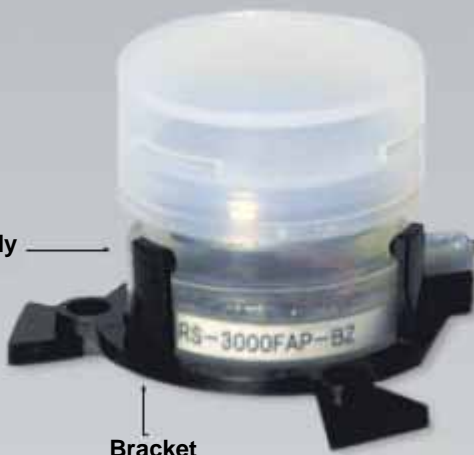
CE Mark Compliance   
UL Recognized Products   
EU-RoHS Compliance 

In a complex and large factory,

“Sound” saves time for locating

where the leakage happens.

Sensor Body



Bracket  
(P/N-6720B)

### Features

- \*RS-3000/RS-3500 FAP-BZ detects leak of almost every kind of liquid by optical-electrical method
- \*Either standalone use, or interfaced with a Control Unit is available by choice for application to the same Detection Unit
- \*The case material of Detection Unit is featured by PFA, resisting against corrosive liquids or atmosphere, and complete water-protected feature of sound loud hole is fabricated



Bracket  
P/N-6718 (SUS)

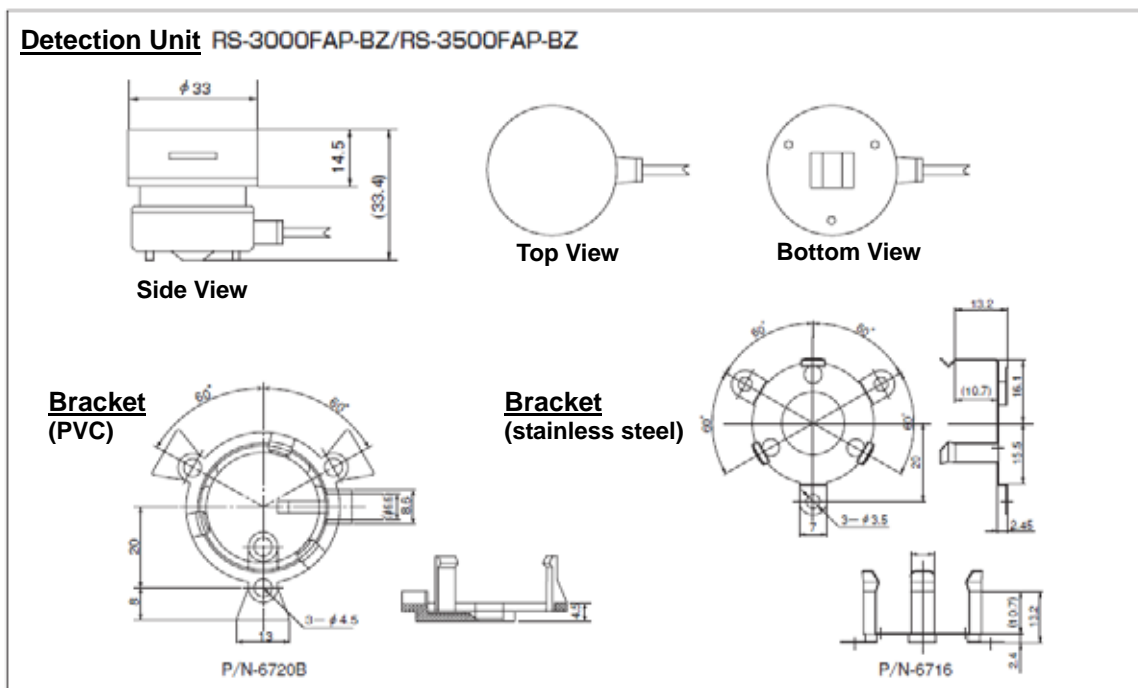
## Specification

Model		RS-3000FAP-BZ	RS-3500FAP-BZ	
Supply Voltage		DC24V (± 10%)		
Consume Current		30 mA or below		
Output Configuration		NPN Open Collector, 50mA max, single	PNP Open Collector, 50mA max, single	
Functions	LED Light Display	Buzzer	Output Signal	
	Normal Status	Green stable ON	OFF	ON
	Leak Status	Red flicker ON	ON	OFF
	Wrong Location	Red flicker ON	OFF	OFF
Consume Current		Available with RS-3000C	Available with RS-3500C	
Ambient Temperature		-10 deg C to 60 deg C		
Mat'l	Case Body	PFA		
	Cable	FEP, 3-wire sheath		
Water Protection		Sealed structure, equivalent IP67 (IEC)		
Weight		approx 55g		
Absorbent Paper		Not required		
Breaker *1		P/N-6716 (Stainless Steel), or P/N-6720B (PVC)		
Cable Length *2		2m (standard), 5m (optional) *2		

\*1 When ordering, designate with suffix code (-6716) or (-6720B) at the last row of the code number of the model to define the attached accessory of Bracket

\*2 If optional 5m cable length is required, add the suffix code of -5M into the code number between the -BZ and above Bracket code. eg. RS-3000FAP-BZ-5M(-6716)

## Outlooks



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