

# Liquid Leak Sensor

# RS-3000 RS-3500

## Series

## Quick Detection

for the variety of Liquid,  
even low viscosity,

## Comfortable and Safety

Job availability

CE Mark Compliance



UL Recognized Products



EU-RoHS Compliance



TASHIKA - JAPAN

# ***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<br>Leakage Alarm: Red<br>Wrong position Alarm: Red |                                    |                                                                     |            |          |
| Output           | NPN transistor open collector<br>Normal: ON, Alarm: OFF<br>50mA max     |                                    | PNP transistor open collector<br>Normal: ON, Alarm: OFF<br>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,<br>up to 8ea Detection Units                                                                                                 | PNP Type Only,<br>up to 8ea Detection Units |
| LED Lamp Alarm                              | Independent Display for each Input<br>(LED Green /Red x 8 points)<br>Normal Status: Green,<br>Leakage or Wrong Position Alarm: Red          |                                             |
| Output                                      | Relay contact x 1 ea<br>Normal Status: closed<br>Leakage or Wrong Position: opened<br>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)<br>Power/Output Connector x 1 ea (insert-locked)<br>*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                       |

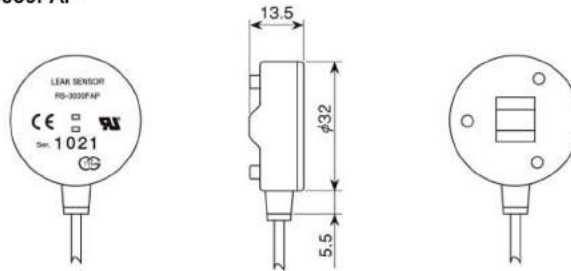
The Buzzer Leak Sensor of RS-3000FAP-BZ and RS-3500FAP-BZ are also fit with this controller. For details, please refer to the brochure of the Buzzer Alarm sensor separately.

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

# Model and Dimensions (length: mm)

## Detection Unit

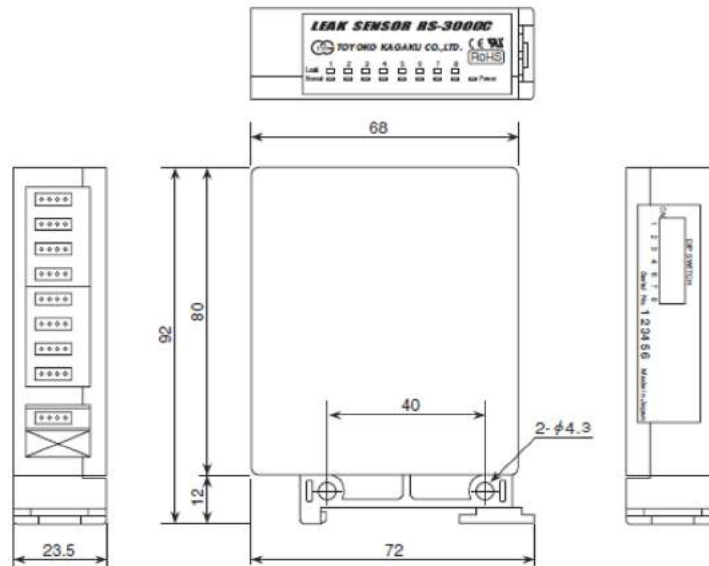
- RS-3000FA/RS-3000FAP
- RS-3500FA/RS-3500FAP



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

## Control Unit

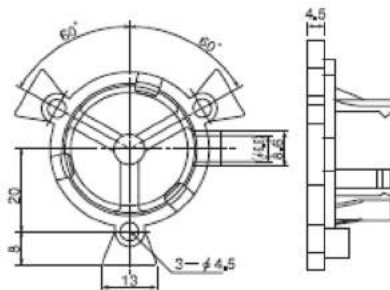
- RS-3000C
- RS-3500C



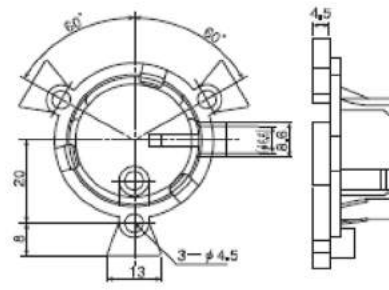
RS-3000C and RS-3500C are the same size and shape to the above drawing.

## Bracket

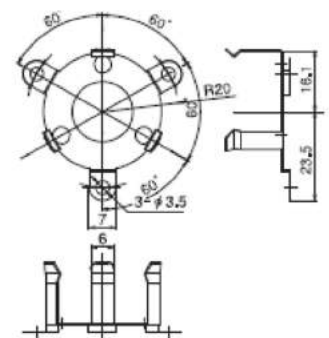
- P/N-6440(PVC)



- P/N-6430(PVC)



- P/N-6716 (stainless steel)



DUE TO CONTINUOUS PRODUCT IMPROVEMENT, THE DESIGN AND TECHNICAL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

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