Specification Document

Water leakage detection sensor cable

Color-changing Recovery Type
Water Leakage Sensor

AD-RS

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<<<Important safety instructions>>>
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1. Scope of Application

The specification document is applicable to the color-changing recovery type water leakage sensor (AD-RS). This sensor can rapidly detect water leakage, and becomes red when absorbing water and restores if dried.

2. Construction

Fig. 1 and Fig. 2 show the construction of the AD-RS sensor

Electrode: 0.33 mm² tinned annealed copper wire
Inner sheathing: Polyethylene
Outer sheathing: Polyester

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**Fig. 1: Schematic Diagram of the AD-RS Sensor**

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**Fig. 2: Cross-section Diagram of the AD-RS Sensor**
### 3. Specifications

Table 1 shows the specifications of AD-RS sensor.

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<tr>
<td>Construction</td>
<td>Construction Material: Strand of tinned annealed copper wires Composition: Copper wire 0.18mm in diameter × 13 (0.33 mm²)</td>
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| Detection characteristic  | The resistance between electrodes is 5kΩ max. (AC) when the water absorbing (tap water) capacity is 3.0 ml or below.  
|                           | · Water dropping amount: directly drop to the sensor (0.05ml/s)  
|                           | · Measuring ambient temperature: 24℃, humidity: 60%RH  
|                           | · Conductivity water temperature: 24℃, 200μS/cm [5.0kΩ·cm]  
|                           | · Testing equipment: Water leakage detector AD-AS-10DRM manufactured by our company.  
|                           | ※ The resistance between electrodes and the amount of water during the sensor operation are dependent on the laying status, environment and water quality for the sensor. |
| Resetting characteristic  | After the water leakage detection, the sensor is reset by natural drying or moisture removal.  
|                           | However, if there are conductive or water-repellent substances in the leaking water, the sensor cannot be reused. |
| Resistance between electrodes (AC) | 10 MΩ min. /100m  
|                           | (measuring ambient temperature: 24℃, humidity: 60%RH) |
| Humidity resistance       | In the high humidity condition, the resistance between electrodes is 100kΩ or above /100m (measuring ambient temperature: 60℃, humidity: 95%RH) provided that there is no moisture condensation. |
| Heat resistance           | 60℃ max. for continuous operation (heat-resistant temperature: 80℃) |
| Weight                    | 10.5±1.0 g/m |

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