





# TEST REPORT

**Report No.** : SGS-R18-1658-EN00  
**Order No.** : TON-R18-2475  
**Applicant** : WISE Control Inc.  
**Address** : 2022 Deogyong-dearo, Giheung-gu, Yongin-si,  
Gyeonggi-do, Korea (17097)  
**Product** : Sheathed Thermocouple & RTD  
**Model No.** : R Series(R121, R122, R221, R222) - General Head Type  
**Date of Test** : August 22, 2018 ~ August 23, 2018  
**Standard** : IEC 60529: 2013  
Degrees of protection provided by enclosures (IP67)  
**Test Result** : Refer to page 10  
**Use of Report** : For Quality Control

This is certified that the above mentioned products have been tested for the sample provided by client.

<b>Affirmation</b>	<b>Tested by</b> Name : Jeong, Sang-jin 	<b>Technical Manager</b> Name : Kim, Hak-ju 
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August 30, 2018

**SGS Korea Co., Ltd. Dongtan Laboratory**



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## 1. Overview

As requested by the client, this test was conducted on test sample according to the test specification presented by the client.

## 2. Product

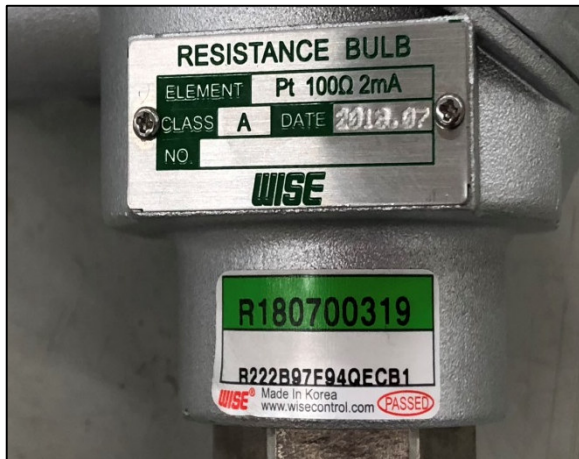
### 2.1 Description

- |                  |  |
|------------------|--|
| 1) Applicant     | : WISE Control Inc.                                    |
| 2) Manufacturer  | : WISE Control Inc.                                    |
| 3) Product       | : Sheathed Thermocouple & RTD                          |
| 4) Model         | : R Series(R121, R122, R221, R222) - General Head Type |
| 5) S.N           | : #1, #2   |
| 6) No. of sample | : 2 EA   |

### 2.2 Photograph



< R Series(R121, R122, R221, R222) - General Head Type #1 >



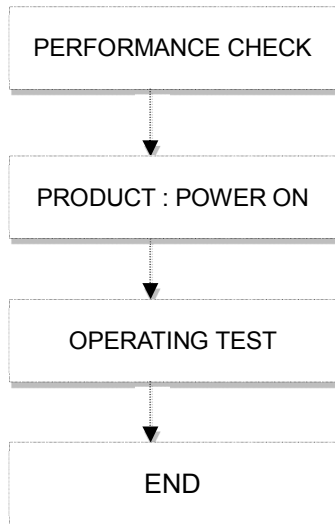
< R Series(R121, R122, R221, R222) - General Head Type #2 >



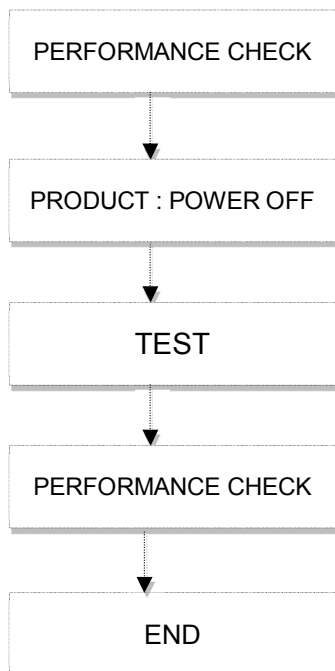


### 3. Test process

#### 3.1 Operating Test



#### 3.2 Non-operating Test



### 4. Test condition & Test result



#### 4.1 IPX7

Applicant	WISE Control Inc.	Dept. in charge	Reliability Test Team
Product	Sheathed Thermocouple & RTD	Tester	Jeong, Sang-jin (+82-31-240-6651)
Model	R Series(R121, R122, R221, R222) - General Head Type	Date	Aug 22, 2018.
Serial No.	#1		
Standard	IEC 60529 : 2013 Degrees of protection provided by enclosures	Page	2

##### (1) Test condition

- 1) IP Code : IPX7
- 2) Immersion depth : 1 m (From water surface to the specimen's lower end)
- 3) Test duration : 30 min
- 4) Status of product : ① Unpacked Product ② Non-operation
- 5) No. of sample : 1 EA

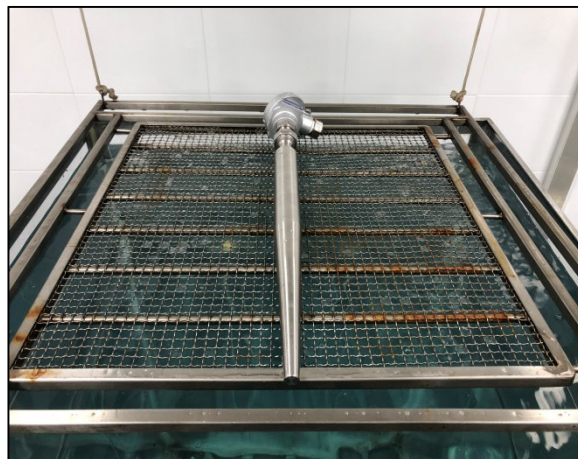
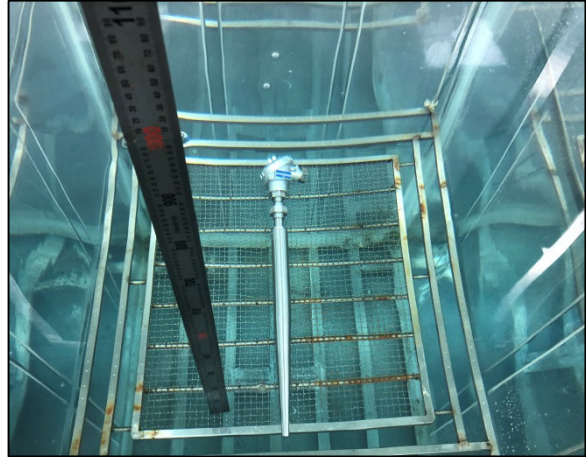
##### (2) List of used equipment

Description	Manufacturer & Model	Serial Number	The due date of next Calibration	Calibration Laboratory
Immersion apparatus	Sejong FA	-	-	-
straight edge ruler	2 000 mm	12062537-7	Aug 02, 2019	SICT

##### (3) Test Result

Check item	Test result
- . Confirmation of water resistance	No water penetration was found. (Refer to page 10)

(4) Test photograph





## 4.2 IP6X

Applicant	WISE Control Inc.	Dept. in charge	Reliability Test Team
Product	Sheathed Thermocouple & RTD	Tester	Jeong, Sang-jin (+82-31-240-6651)
Model	R Series(R121, R122, R221, R222) - General Head Type	Date	Aug 22, 2018.
Serial No.	#2		
Standard	IEC 60529 : 2013 Degrees of protection provided by enclosures	Page	2

### (1) Test condition

- 1) IP code : IP6X
- 2) Test time : 8 h
- 3) Decompression : Maximum depression of 2 kPa (20 mbar)
- 4) Status of product : ① Unpacked product ② Non-operation
- 5) Check point : After the test
- 6) Sample quantity : 1 EA

### (2) List of used equipment

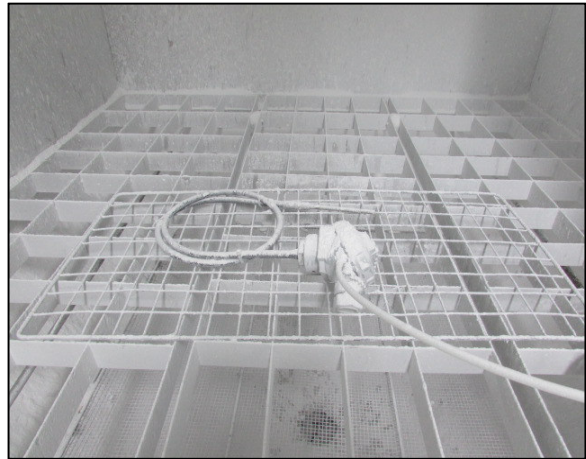
Description	Manufacturer & Model	Serial Number	The due date of next Calibration	Calibration Laboratory
Dust Chamber	Daekyung Engineering DOC-300DSEM	DOC-11-43-10DSEM	N/A	N/A
Temperature controller	HANYOUNG KX9N-SENA	825110	February 23, 2019	SICT
Pressure Transmitter	SENSORTEC KP-21N	1107048	February 28, 2019	SICT
Mass Flow Meter	XFM47	440070-1	Mach 07, 2019	DDHT

### (3) Test result

Check item	Test result
-. Confirmation of dust resistance	No dust penetration was found. (Refer to page 10)



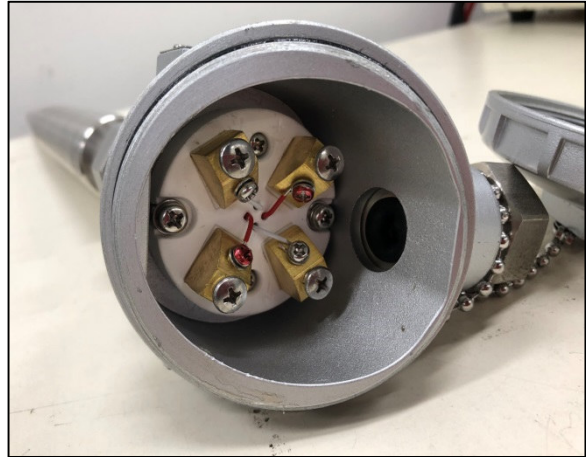
(4) Test photograph





## ※ Annex 1. Test result photograph

1. IPX7 : No water penetration was found.



2. IP6X : No dust penetration was found.



End.