

## Explosion proof

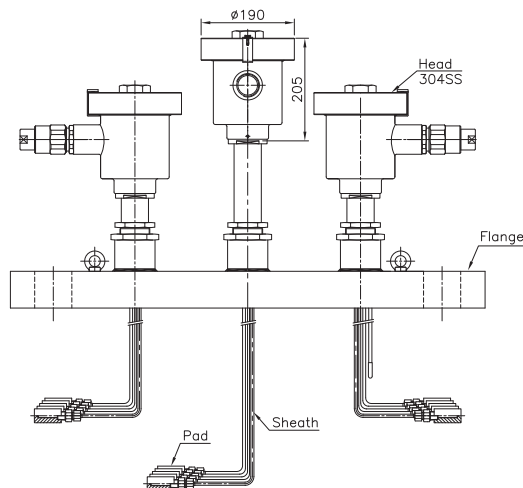
## Multi point thermocouple and resistance temperature detector

### Model : R930 series (RC series)

Spec. sheet no. RD09-04

#### Service intended

This type of detector is designed to be used in a situation where the user wants to measure the distributed temperature of a reactor or a container. It can measure horizontally distributed temperature and also can measure the temperature in each depth of the container or the reactor. It is also designed to consider the size of nozzle, installation space and requirement, and convenience of repairing and replacing. Wise Control Inc. can manufacture any types of multi point temperature sensors, and upon request of the customer, we can employ the requested material of protection tube, the material of sheath, size, measuring points, and the method of attaching the sensor. Especially, we can provide the temperature sensors without protection tube in a high pressure line by employing our own safety measures. The temperature sensors for junction box to connect the terminal can be manufactured in explosion proof type.



#### Standard features

##### Element

Thermocouple : K, E, J, T, N  
R.T.D. : Pt 100  $\Omega$  at 0  $^{\circ}\text{C}$

##### Tolerances on temperature reading

- Thermocouple  
Class 1, Class 2 (DIN/IEC584-2, BS/EN60584-2, JIS C1602)  
Special, Standard (ASTM E230, E988, ISA-MC96.1)
- R.T.D.  
Class A :  $\pm(0.15 + 0.002 |t|)$   
Class B :  $\pm(0.3 + 0.005 |t|)$

##### Head material

Stainless steel  
Aluminium

##### Sheath outer diameter

- Thermocouple  
3.2, 4.8, 6.4 and 8.0 mm
- R.T.D.  
3.2, 4.8, 6.4 and 8.0 mm

##### Number of measuring temperature point

Possible to manufacture according to customer's require number of point within the allowed range of nozzle bore.  
One thermocouple head could contain up to 5 points element.

##### Certificates

KCS Ex d IIC T6 IP67

##### Degree of protection

EN60529/IEC529/IP67

## Main order

## Ordering information

### 1. Base model

- R931** Thermocouple single element
- R932** Thermocouple double element
- R933** RTD single element
- R934** RTD double element

### 2. Head material and tip shape type

- A** Stainless steel and ungrounded
- B** Stainless steel and ground
- C** Aluminium and ungrounded
- D** Aluminium and ground

### 3. Head extension type and sealing location

- 0** Nipple and head
- 1** Nipple and flange
- 9** Other

### 4. Element (Tolerance)

- K** K (0.75)
- J** J (0.75)
- T** T (0.75)
- E** E (0.5)
- Q** Pt 100 Ω

### 5. Number of measuring temperature point

- A** 2
- B** 3
- C** 4
- D** 5
- E** 6
- F** 7
- G** 8
- H** 9
- J** 10
- K** 11
- L** 12
- M** 13
- N** 14
- P** 15
- Z** Other

### 6. Sheath outer diameter (mm)

- 1** 3.2
- 2** 4.8
- 3** 6.4
- 4** 8.0

### 7. Sheath material

- 1** 316SS
- 2** Inconel 600
- 3** 310SS
- 4** 446SS
- 5** 347SS
- 6** 321SS
- 7** 316L SS
- 9** Other

### 8. Protecting tube material

- 0** None

### 9. Connection type

- XX** Refer to insert length table (12<sup>th</sup> and 13<sup>th</sup> character)

### 10. Insert length

- X** Refer to insert length table (14<sup>th</sup> character)

### 11. Option

- 0** None
- 1** Accessories

1	2	3	4	5	6	7	8	9	10	11
R933	A	1	Q	J	3	1	0	XX	X	1

Sample  
ordering code



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## Mounting, connection type and insert length table - 12<sup>th</sup> thru 14<sup>th</sup> characters

12 <sup>th</sup> character		13 <sup>th</sup> character		14 <sup>th</sup> character	
Code	Connection size	Code	Connection type	Code	Insert length (m)
0	1"	A	NPT	A	2
1	1¼"	B	PT	B	3
2	1½"	C	B16.5 Class 150 RF	C	4
3	2"	D	B16.5 Class 150 FF	D	5
4	2½"	E	B16.5 Class 300 RF	E	6
5	3"	F	B16.5 Class 300 FF	F	7
6	4"	G	B16.5 Class 600 RF	G	8
7	6"	H	B16.5 Class 600 FF	H	9
9	8"	J	B16.5 Class 900 RF	J	10
A	12"	K	B16.5 Class 900 FF	K	15
B	24"	L	B16.5 Class 1,500 RF	L	20
Z	Other	M	B16.5 Class 1,500 FF	M	25
		N	B16.5 Class 1,500 RTJ	N	30
		P	B16.5 Class 2,500 RF	P	35
		Q	B16.5 Class 2,500 FF	Q	40
		R	B16.5 Class 2,500 RTJ	R	45
		S	JIS 10K RF	S	50
		T	JIS 10K FF	Z	60
		U	JIS 20K RF	1	70
		V	JIS 20K FF	2	80
		Z	Other	3	90
				4	100
				5	110
				6	120
				Z	Other

14<sup>th</sup> characters note : Please choose the longest among measuring points.

