

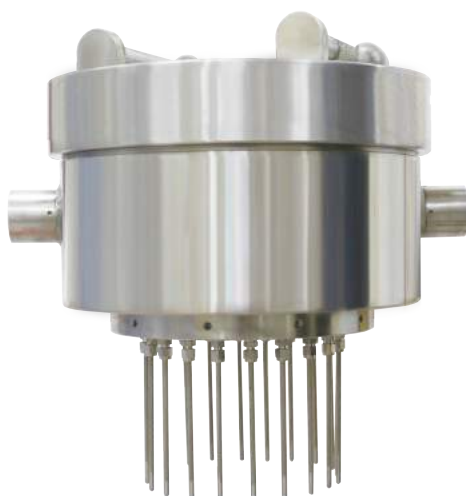
# Cool-down and leak detector

## Model : R190 (RL series)

Spec. sheet no. RD01-03

### Service intended

R190 series are explosion proof temperature sensors with a high accuracy and a high reliability for cryogenic industries such as LNG tank terminal and oxygen generator. The temperature sensors are available as RTD depending on the usage, and it can be designed according to user's request. Furthermore, these sensors can be manufactured according to the requested specification of flange or thread for required measuring points.



### Standard features

#### Junction box

316SS

#### Temperature range

-200 ~ 100°C

#### Element

Pt 100Ω at 0°C

#### Maximum measuring points

15 point

#### Sheath material

316L SS

#### Tolerances on temperature reading

Class A :  $\pm (0.15 + 0.002 |t|)$

Class B :  $\pm (0.3 + 0.005 |t|)$

#### Sheath outer diameter

3.2, 4.8 and 6.4 mm

#### Certificates

KCS Ex d IIC T6

## Main order

## Ordering information

### 1. Base model

**R190** Cool-down and leak detector

### 2. Junction box

**H** Explosion proof type  
**Z** Other

### 3. Element (Tolerance)

**Q** Pt 100Ω (B)  
**9** Pt 100Ω (A)

### 4. Sheath material

**1** 316L SS  
**9** Other

### 5. Sheath outer diameter (mm)

**D** 3.2  
**E** 4.8  
**F** 6.4

### 6. Measuring point

**01** 1  
**02** 2  
**03** 3  
**04** 4  
**05** 5  
**06** 6  
**07** 7  
**08** 8  
**09** 9  
**10** 10  
**11** 11  
**12** 12  
**13** 13  
**14** 14  
**15** 15

### 7. Conduit connection

**1** ½" PF  
**2** ½" PT  
**3** ½" NPT  
**4** ¾" PF  
**5** ¾" PT  
**6** ¾" NPT  
**7** None  
**8** M20 x 1.5P  
**9** Other

### 8. Connection type

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

### 9. Insert length

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

### 10. Option

**0** None  
**1** Accessories

1	2	3	4	5	6	7	8	9	10
R190	H	Q	1	F	12	1	XX	X	1

Sample  
ordering code

## 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 and connector material	Code	Connection type	Code	Insert length (m)
A	None	A	None	A	2
B	1/8" and 304SS	B	PT	B	3
C	1/4" and 304SS	C	NPT	C	4
D	3/8" and 304SS	D	PF	D	5
E	1/2" and 304SS	E	NPS	E	6
F	3/4" and 304SS	F	UNF	F	7
G	1" and 304SS	G	BSPT	G	8
H	1 1/4" and 304SS	H	BSPF	H	9
J	1 1/2" and 304SS	J	MM	J	10
K	2" and 304SS	K	ANSI 150 Lb RF	K	15
L	3" and 304SS	L	ANSI 150 Lb FF	L	20
M	7/8" and 304SS	M	ANSI 300 Lb RF	M	25
N	1 1/8" and 316SS	N	ANSI 300 Lb FF	N	30
P	1/4" and 316SS	O	Sanitary	P	35
Q	3/8" and 316SS	P	ANSI 600 Lb RF	Q	40
R	1/2" and 316SS	Q	ANSI 600 Lb FF	R	45
S	3/4" and 316SS	R	JIS 5K RF	S	50
T	1" and 316SS	S	JIS 5K FF	Z	Other
U	1 1/4" and 316SS	T	JIS 10K RF		
V	1 1/2" and 316SS	U	JIS 10K FF		
W	2" and 316SS	V	JIS 20K RF		
X	3" and 316SS	W	JIS 20K FF		
Y	7/8" and 316SS	X	ANSI 1,500 Lb RTJ		
Z	Other	Y	ANSI 2,500 Lb RTJ		
		Z	Other		

■ Note for 14<sup>th</sup> character, please choose a code of next higher length if applicable length is not.  
Actual length shall be specified.

