

# Stainless Steel Case Thermometers

## <Surface / Panel mounting type>

# RL54·56·74·76

Liquid / Gas filled dial thermometer

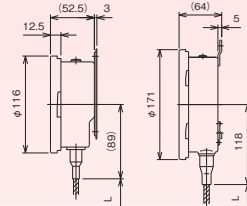


RL5

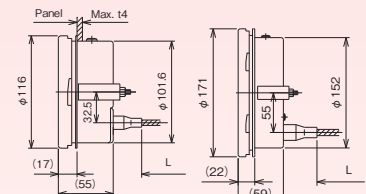
### Dimensions

Surface mounting

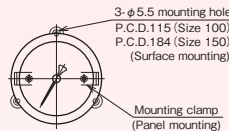
Panel mounting



RL54 (φ100) RL56 (φ150)



RL74 (φ100) RL76 (φ150)



Model	Panel cut dimensions
RL74	φ 103.6±1
RL76	φ 154±1

### Specifications

Item		Description
Manufacturing range		-200~600°C
Case		Construction: Spray-proof / equivalent to IP65, Material: SUS304, Finish: Plain
Wetted parts material		Bulb: SUS304, Connection / Flange: SUS304
Accuracy	Indication error	Within ±2% F.S. at room temperature (20°C) Within ±1%F.S. is available in the range of 0 to 50°C → 0 to 150°C and φ 100 lead compensation. (RL54 · 74)
	Ambient temperature	Within ± 2 %F.S./15°C
Compensation		Bimetal compensation
Connection		R1/2, R3/4, 1/2NPT, G1/2B, G3/4B 1/2 is not available with φ 16 bulb and φ 19, φ 23 thermowell.
Flange		JIS10K20ARF, JIS10K25ARF, ANSI1B150RF, ANSI1B300RF
Connection	Without thermowell	Union type, Slide type
	With thermowell	Double socket union type: R1/2, 1/2NPT (Connection) Double socket slide type: R1/2, 1/2NPT (Connection)

Slide type is not available with φ 16 bulb.  
When the maximum temperature of temperature range exceeds 400°C, slide type is not available.

### Range / Bulb DIA. / Bulb length / Lead length

Range °C	Minimum graduation °C	Bulb minimum insertion length mm														Bulb maximum length mm									
		Bimetal compensation					φ 100 lead compensation					φ 150 lead compensation													
		Bulb outer diameter		Lead length			Bulb outer diameter		Lead length			Bulb outer diameter		Lead length											
-200~ 50	5	φ8	φ10	φ12	φ13	φ16	~ 5m	~ 5m	~ 5m	~ 5m	~ 5m	φ8	φ10	φ12	φ13	φ16	~ 5m	~ 5m	~ 5m	~ 5m	~ 5m	500			
		225	170	225	170	225	170	6~15m	6~15m	6~15m	6~15m	6~15m	225	170	225	170	225	170	6~15m	6~15m	6~15m		6~15m	6~15m	
		300	220	300	220	300	220	16~25m	16~25m	16~25m	16~25m	16~25m	300	220	300	220	300	220	16~25m	16~25m	16~25m		16~25m	16~25m	
		370	270	370	270	370	270	26~30m	26~30m	26~30m	26~30m	26~30m	370	270	370	270	370	270	26~30m	26~30m	26~30m		26~30m	26~30m	
-100~100	5	φ8	φ10	φ12	φ13	φ16	~ 5m	~ 5m	~ 5m	~ 5m	~ 5m	φ8	φ10	φ12	φ13	φ16	~ 5m	~ 5m	~ 5m	~ 5m	~ 5m	500			
		225	170	225	170	225	170	6~15m	6~15m	6~15m	6~15m	6~15m	225	170	225	170	225	170	6~15m	6~15m	6~15m		6~15m	6~15m	
		300	220	300	220	300	220	16~25m	16~25m	16~25m	16~25m	16~25m	300	220	300	220	300	220	16~25m	16~25m	16~25m		16~25m	16~25m	
		370	270	370	270	370	270	26~30m	26~30m	26~30m	26~30m	26~30m	370	270	370	270	370	270	26~30m	26~30m	26~30m		26~30m	26~30m	
-70 ~ 50	2	50	45	40	40	50	~ 5m	160	110	90	75	65	~20m	50	45	40	40	50	~20m	50	45	40	40	50	~20m
-70 ~100	5	40	40	40	40	40	~ 5m	125	90	75	65	60	~20m	40	40	40	40	40	~20m	40	40	40	40	40	~20m
-50 ~ 50	2	55	45	40	40	55	~ 5m	180	120	95	85	70	~20m	55	45	40	40	55	~20m	55	45	40	40	55	~20m
-30 ~ 50	2	65	55	45	40	40	~ 5m	215	140	110	95	80	~20m	65	55	45	40	40	~20m	65	55	45	40	40	~20m
-20 ~100	2	50	45	40	40	50	~ 5m	160	110	90	75	65	~20m	50	45	40	40	50	~20m	50	45	40	40	50	~20m
-10 ~ 50	1	70	60	50	45	40	~ 5m	265	170	130	110	90	~20m	70	60	50	45	40	~20m	70	60	50	45	40	~20m
0 ~ 50	1	70	60	50	45	40	~ 5m	305	190	145	125	100	~20m	70	60	50	45	40	~20m	70	60	50	45	40	~20m
~ 60	1	65	55	45	40	40	~ 5m	265	170	130	110	90	~20m	65	55	45	40	40	~20m	65	55	45	40	40	~20m
~ 80	2	65	55	45	40	40	~ 5m	245	155	120	105	85	~20m	65	55	45	40	40	~20m	65	55	45	40	40	~20m
~100	2	55	45	40	40	55	~ 5m	205	135	105	90	75	~20m	55	45	40	40	55	~20m	55	45	40	40	55	~20m
~120	2	50	45	40	40	50	~ 5m	180	120	95	85	70	~20m	50	45	40	40	50	~20m	50	45	40	40	50	~20m
~150	2	40	40	40	40	40	~ 5m	155	105	85	75	65	~20m	40	40	40	40	40	~20m	40	40	40	40	40	~20m
~200	5	40	40	40	40	40	~ 5m	110	80	70	60	55	~20m	40	40	40	40	40	~20m	40	40	40	40	40	~20m
~250	5	40	40	40	40	40	~ 5m	100	75	65	60	55	~20m	40	40	40	40	40	~20m	40	40	40	40	40	~20m
~300	5	40	40	40	40	40	~ 5m	90	70	60	55	50	~20m	40	40	40	40	40	~20m	40	40	40	40	40	~20m
~400	10	230	170	120	100	80	~10m	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1000 *1
~500	10	230	170	120	100	80	~10m	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	or
~600	10	230	170	120	100	80	~10m	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3000

- The above lengths are the minimum necessary of the bulb to be inserted into the fluid to be measured.
- Bulb length should be over the above length and specified in 5mm steps.
- φ 75 are not available in the [ ] portion.
- \*1 Bulb maximum dimension: Available up to 3000mm when φ 10, 12, and 13, up to 1000mm when φ 8, 16.

The above minimum insertion length is the length without thermowell.  
With thermowell, 25mm is added to the above length.  
The minimum length of the plain type bulb is the minimum length of the above table plus 40mm.

# RL54·56·74·76

## Indicating Thermometers

### Model number configuration

Please specify the model number, each specs and the range for ordering.

Model

Stainless steel case thermometer/Remote type

Model number

Selective spec.

Additional spec. (Option)

Type	5	4	φ 100	Spray-proof surface mounting type
	7	4	φ 100	Spray-proof panel mounting type
	5	6	φ 150	Spray-proof surface mounting type
	7	6	φ 150	Spray-proof panel mounting type

① Thermowell inside screws

For with thermowell, please specify the thermowell type on a separate page

0	Without thermowell	Welded type	Drilled type	Welded type
	With thermowell		Straight	Taper
1	Inside screws: Standard (W22 thread 14)	SW11 (SW10)	SW41 (SW40)	SW71 (SW70)
2	Inside screws: Rc1/2 double socket	SW12	SW42	SW72
3	Inside screws: 1/2NPT double socket	SW13	SW43	SW73
4	Inside screws: G1/2 double socket	SW14	SW44	SW74
5	Inside screws: Rc3/4 double socket	SW15	SW45	SW75

② Connecting part

0	Union type
1	Slide type (Not available for φ 16 bulb, and when the maximum temperature of temperature range exceeds 400°C.)
4	Plain type

③ Connecting screws

0	R1/2	H	JIS10K50ARF
1	R3/4	J	JIS20K20ARF
2	1/2NPT	K	JIS20K25ARF
3	G1/2B	L	JIS10K15AFF
4	G3/4B	M	JIS10K20AFF
5	JIS10K20ARF	N	JIS10K25AFF
6	JIS10K25ARF	P	ANSI3/4B15ORF
7	ANSI1B15ORF	Q	ANSI3/4B30ORF
8	ANSI1B30ORF	R	ANSI1B60ORF
A	Fixing screws (W22 thread 14)	S	ANSI 1 1/2B15ORF
B	R3/8	T	ANSI 1 1/2B30ORF
C	R1	U	ANSI 1 1/2B60ORF
D	3/4NPT	W	JPI 1B15ORF
E	1NPT	X	JPI 1B30ORF
F	JIS10K15ARF	Y	JPI 1B60ORF
G	JIS10K40ARF	Z	Plain type

④ Range °C

1	0~50, 60, 80, 100, 120, 150	Accuracy ±1%F.S. not available
2	0~200, 250, 300	
3	0~400, 500 (Gas filled)	
4	0~600 (Gas filled)	
5	-10~50, -30~50, -50~50	
6	-70~50, -70~100, -20~100	
8	-100~100 (Gas filled)	
9	-200~50 (Gas filled)	

Please specify the temperature range and units separately besides selection of range code.

⑤ Bulb material

1	SUS304
2	SUS316
X	With thermowell

⑥ Bulb DIA.

1	d=φ 8
2	d=φ 10
3	d=φ 12
4	d=φ 13
5	d=φ 16 Slide type not available
X	With thermowell

⑦ Bulb length

A	Minimum dimension ~ 500mm
	Other specified (Gas filled available) ( /100mm)
X	With thermowell

⑧ Compensation

1	Bimetal compensation
2	Lead compensation φ100 Lead compensation φ150

⑨ Lead type

2	Armored tube B (SUS430) (Standard)
B	Armored tube B (SUS304)
E	Armored tube B (SUS316)

⑩ Lead length

	Bimetal	Lead
0	0	Direct type
A	ア	Up to 3m
B	イ	Up to 4m
C	ウ	Up to 5m
D	エ	Up to 6m
E	オ	Up to 7m
F	カ	Up to 8m
G	キ	Up to 9m
H	ク	Up to 10m
9	9	Other specified ( /m)

⑪ Accuracy

0	±2%F.S. (Standard)
3	±1%F.S. (Selectable only RL54, 74)

⑫ Glass

0	Standard (Inorganic glass)
2	Tempered glass

⑬ Kind of thermowell

1	Welded type
4	Drilled type straight
7	Drilled type taper
8	Welded flange

⑭ Thermowell inside screws

0	For slide type General products: Not available
1	W22 thread 14
2	Rc1/2
3	1/2NPT
4	G1/2
5	Rc3/4
6	3/4NPT
7	G3/4

General products: Not available

⑮ Documents

0	Nil
1	Required (Please specify the desired documents separately.) Submission drawings, instruction manual, inspection procedure, mill sheet, test report (1 pc 1 copy), traceability / inspection certificate, strength calculation, attended inspection

\*When ordering, please specify the bulb length and lead length.  
\*The thermowell model composition is SW ⑬ ⑭.  
\*For with thermowell, please refer to P ⑩ ~thermowell manufacturing specifications and specify the SW model also.

\*Specify "X" if there is no specification item.