

Gas Actuated Thermometers

Type TI.R45, TI.R60



- Remote Reading
- Linear Scale
- High Temperature Capability

WIKA gas actuated remote reading dial thermometers are manufactured in three wall-mounted case styles: the cast aluminum back flange case with a 4½" dial size, the phenolic/GRP turret case (also with a 4½" dial size) and the stainless steel back flange case available in 4½" and 6" dial sizes. All may be specified with back or lower connected capillaries.

Standard Features

- **Accuracy:** ±1% of full range span
- **Over Range:** 50% of span above top of range or 1300°F, whichever is lower
- **Cases:** Drawn stainless steel, aluminum and Phenolic/GRP; for stem, surface or panel mount
- **Sizes:** 4½", 6"
- **Mounting Connections:** Lower or back on remote reading thermometers; adjustable angle on Just Rite
- **Bulb:** ⅜" dia. x 3" active length standard in stainless steel; plain, sliding union
- **Capillary:** 316 stainless steel with stainless steel spring armor, or 316 stainless steel with stainless steel interlocking armor. 99' maximum
- **Dials:** White coated aluminum with black marking
- **Pointer:** Adjustable, balanced, aluminum with matte black finish
- **Ambient Error:** 0.25% at midscale of span per 25° F change in ambient temperature
- **Case Styles:** Wall mount-manufactured in 3 wall-mounted case styles: cast aluminum back flange case with 4½" dial size, the phenolic/GRP turret case with 4½" dial size, and stainless steel back flange case in 4½" and 6" dial sizes; may be specified with back or lower-connected capillaries.

Adjustable angle-flangeless, stainless steel case with bayonet bezel and 360° rotation. Stainless steel bulb can be rotated 180° to either side of the vertical axis of the stem to allow mounting from the top, bottom, or either side of an installation. Union fitted bulb can be threaded directly into a process connection or into a thermowell or duct flange.

Fahrenheit (outer scale)			Celsius (inner scale)		
Range:	Figure Interval	Subdivision	Range	Figure Interval	Subdivision
-320/100	50	5	-200/40	20	2
-120/120	20	2	-80/50	10	1
0/120	10	1	-20/50	5	1
0/160	20	2	-20/70	10	1
-40/180	20	2	-40/80	10	1
20/240	20	2	-10/115	10	1
0/300	25	5	-20/150	20	2
50/400	50	5	0/200	50	2
50/550	50	5	0/300	50	5
50/750	50	5	0/400	50	5
400/1200	100	10	200/650	50	5

(Case Styles cont.)

Just-Rite's standard bulb/stem thermal system is available in 4", 6" and 9" lengths; only 3" of the tip is active. Panel Mount WIKA gas actuated remote reading dial thermometers accommodate most panel mounting requirements. Stainless steel "U" clamp cases are available in 4½" and 6". Aluminum front flange cases offer 4½" and 6" dial sizes. A stainless steel semi-flush front flange case is available in 4½" and 6" dial sizes. All panel mount thermometers are back connected. Turret phenolic case is available in 4½". Just-Rite is available in 4½" and 6".

Datasheets: TI.R45, TI.R60

Ordering Gas Actuated Thermometers

To order a WIKA Gas Actuated Thermometer, specify a complete part number from the following tables. Any special feature not shown must be specified in detail in addition to the model number.

Sample Part Number: R45 E L 3 8 7 05 006 00 WI

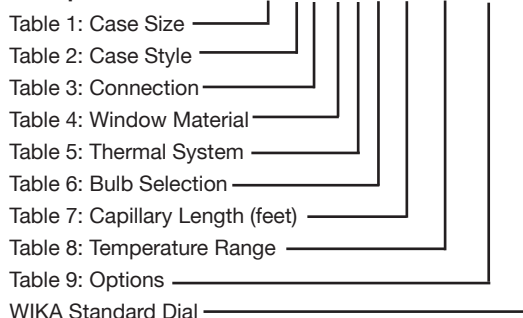


Table 1 - Case Size

Code	Description
R45	4½" Case
R60	6" Case

Table 2 - Case Type & Material

Code	Description	Material	Dial Size
K	Back Flange, bayonet ring	SS	4½", 6"
B	Back Flange, bayonet ring	Aluminum	4½", 6"
E	Turret, threaded ring	Phenolic	4½"
F	Front Flange, hinged ring	Aluminum	4½", 6"
S	Semi-flush Front Flange, bayonet ring	SS	4½", 6"
U	U-Clamp, bayonet ring	SS	4½", 6"
*V	Just-Rite, adjustable angle	SS	4½", 6"

*Capillary is not available. Fixed stem length only as specified in Table 6.

Table 3 - Connection

Code	Description	Case Size	Case Type
B	Back Connection	4½", 6"	ALL
L	Lower Connection	4½", 6"	4½" (K, B, E); 6" (K only)
*A	Adjustable Angle	4½", 6"	V only

*Capillary is not available. Fixed stem length only as specified in Table 6.

Table 4 - Window

Code	Description	Case Size	Case Type
3	Acrylic	4½"	ALL
4	Glass	4½", 6"	ALL
5	Shatterproof glass	4½"	E, K, S, U, V

Table 5 - Thermal System

Code	Bulb Type	Bulb Material	Capillary Material	Capillary Protection	w/5' Capillary
0	Adjustable angle 1/2" NPT	316SS	N/A	**N/A	
1	Plain	316SS	316SS	Spring armor*	
8	Sliding union 1/2" NPSM	316SS	316SS	Spring armor*	

* For systems up to 40 Ft.; Spiral Interlock required on all systems over 40 Ft. (see "SI" options, Table 9) **Capillary is not available; fixed stem length only as indicated in Table 6.

Table 6 - Bulb Selection

Code	Description	Union	Thermowell Immersion
ADJUSTABLE ANGLE OAL Thermowell Immersion			
4	3/8" Dia. x 3" Length (active), total 4"	4 1/4"	U = 2 1/2"
6	3/8" Dia. x 3" Length (active), total 6"	6 1/4"	U = 4 1/2"
9	3/8" Dia. x 3" Length (active), total 9"	9 1/4"	U = 7 1/2"
X	3/8" Dia. x 3" Length (active), total 12"	12 1/4"	U = 10 1/2"
PLAIN BULB - REMOTE			
1	3/8" Dia. x 3" Length (active) + 12" rigid extension		
SLIDING UNION (1/2" NPSM) BULB W/ BENDABLE EXTENSION (split fitting)			
7	3/8" Dia. x 3" Length (active) w/ 12" bendable extension	3 to 12"	U = 2 1/2" to 10 1/2"
8	3/8" Dia. x 3" Length (active) w/ 18" bendable extension	3 to 18"	U = 2 1/2" to 16 1/2"

Note: Thermowell Note: Gas actuated thermometers use standard process type 3/8" bore thermowells, if required. Order separately.

Special Table 5 & 6 Note:

The only possible thermal system/bulb combinations are as follows:

Plain Bulb: (11)
Adjustable Angle: (04), (06), (09), (0X)
Sliding Union: (87), (88)

Table 7 - Capillary Length

Code	Description
05	5 feet
10	10 feet
20	20 feet
30	30 feet
40	40 feet
*50	*50 feet
*80	*80 feet
XX	Adjustable angle case

* Requires "SI" option, see Table 9

Note:

Capillary can be configured to any whole foot, 99' and below; I.E., 08 = 8' capillary

Table 8 - Temperature Range

Code	Dual Scale F & C	
*001 ¹⁾	*-320/100°F	-200/40°C
002	-120/120°F	-80/50°C
003	0/120°F	-20/50°C
004	0/160°F	-20/70°C
005	-40/180°F	-40/80°C
006	20/240°F	-10/115°C
007	0/300°F	-20/150°C
008	50/550°F	0/300°C
009	50/750°F	0/400°C
**010 ¹⁾	**400/1200°F	200/650°C
011	50/400°F	0/200°C

* Requires "LT" option, See Table 9

** Requires "HT" option, See Table 9

¹⁾ Consult factory for NIST certification fees

Note:

Ranges marked with an asterisk in Table 8 reference same coding in Table 9 and require additional cost as indicated.

Table 9 - Options & Accessories

Code	Description	Case Size	Case Type
00	No Accessories	ALL	ALL
FR	Flush Mounting Ring	4 1/2"	E
*LT	Low Temperature (Cryogenic -320 F)	ALL	ALL
**HT	High Temperature (1200 F)	ALL	ALL
SI	316 SS Interlocking armor	ALL	ALL (Must be on systems over 40 Ft.)

* Requires "LT" option, See Table 9

** Requires "HT" option, See Table 9

Table 10 - Dial Logo

Code	Description
WI	WIKAL
BL	Blank

Master Gauge Co.



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