

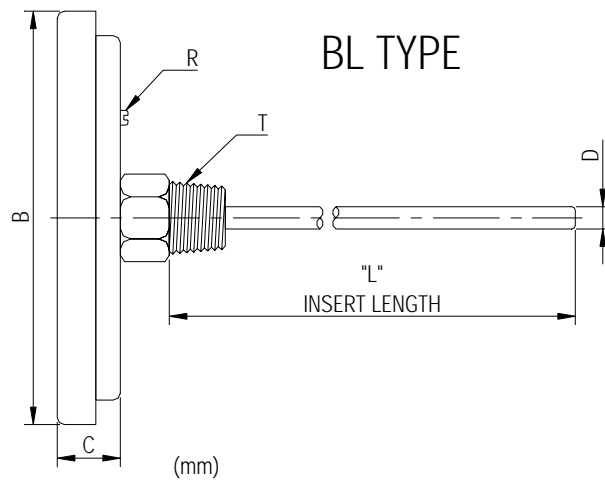
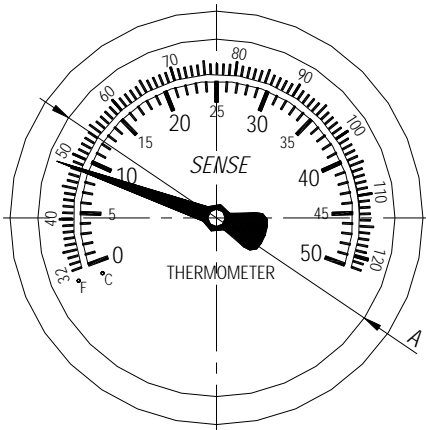


雙金屬溫度計 BI-METAL DIAL THERMOMETERS

BL(T)型 BL TYPE



Note:
 When ordering specify
 1.Type No.
 2.Case Dial.
 3.Temperature Range.
 4.Connection.
 5.Stem Dial.
 6.Stem Length.



| Type No. Symbol | A | B | C | D | L | T |
|--------------------|-----|-----|----|------|-------------|--------|
| BL2 | 49 | 58 | 14 | 6 | by order | 1/4"PT |
| BL3 | 70 | 84 | 17 | 6.35 | | 3/8"PT |
| BL4 | 100 | 119 | 18 | 8 | | 1/2"PT |
| BL5 | 125 | 141 | 18 | 10 | | 3/4"PT |
| BL6 | 150 | 166 | 18 | 12 | | |

Specifications.

1. Case Material:304 、 316 s.s.
2. Case Dial:1.5"、 2"、 2.5"、 3"、 4"、 5"、 6"
3. Stem Material:304 、 316s.s.
4. Temperature Range:-50~600°C
5. Windows:Glass.
6. Connection:1/4"PT 、 3/8"PT 、 1/2" PT 、 3/4"PT 、 1"PT
7. Stem Length:By order.
8. Stem Dial:6mm 、 6.35mm 、 8mm.
9. Accuracy:± 1%F.S..
10. Type:BL TYPE
11. Appliactions:Transformer 、 petrochemicals 、 driers 、
 foods 、 air conditioning equip 、 boilers & other general industrial uses.

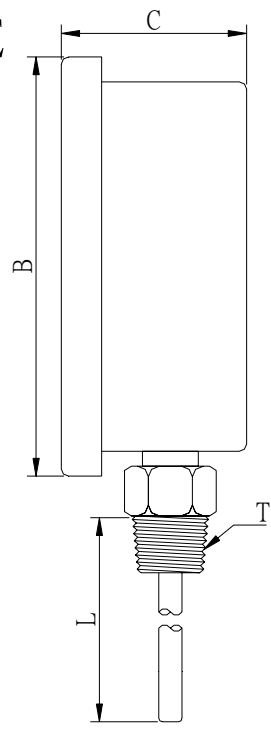
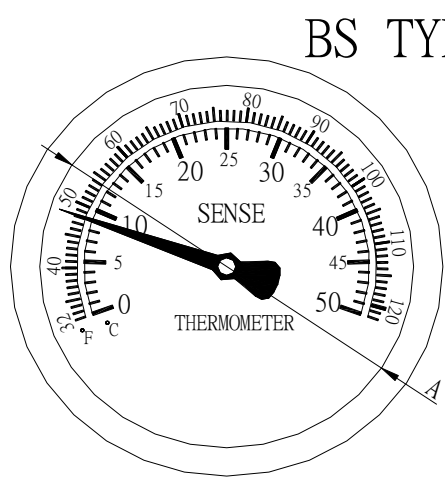


雙金屬溫度計 BI-METAL DIAL THERMOMETERS

BS(I)型 直立型 BS TYPE



Note:
 When ordering specify
 1.Type No.
 2.Case Dial.
 3.Temperature Range.
 4.Connection.
 5.Stem Dial.
 6.Stem Length.



| Type No. | Symbol | A | B | C | T | L |
|----------|--------|-----|-----|----|--------|----------|
| BS3 | | 70 | 84 | 45 | 1/2"PT | by order |
| BS4 | | 102 | 118 | 48 | 1/2"PT | by order |

Specifications.

1. Case Material:304 、 316 s.s.
2. Case Dial: 3" ^Ø 、 4" ^Ø 、 6" ^Ø
3. Stem Material:304 、 316s.s.
4. Temperature Range:-50~600°C
5. Windows:Glass.
6. Connection:1/4"PT 、 3/8"PT 、 1/2" PT 、 3/4"PT 、 1"PT
7. Stem Length:By order.
8. Stem Dial:6mm 、 6.35mm 、 8mm.
9. Accuracy:±1%F.S..
10. Type:BS TYPE
11. Appliactions:Transformer 、 petrochemicals 、 driers 、 foods 、 air conditioning equip 、 boilers & other general industrial uses.

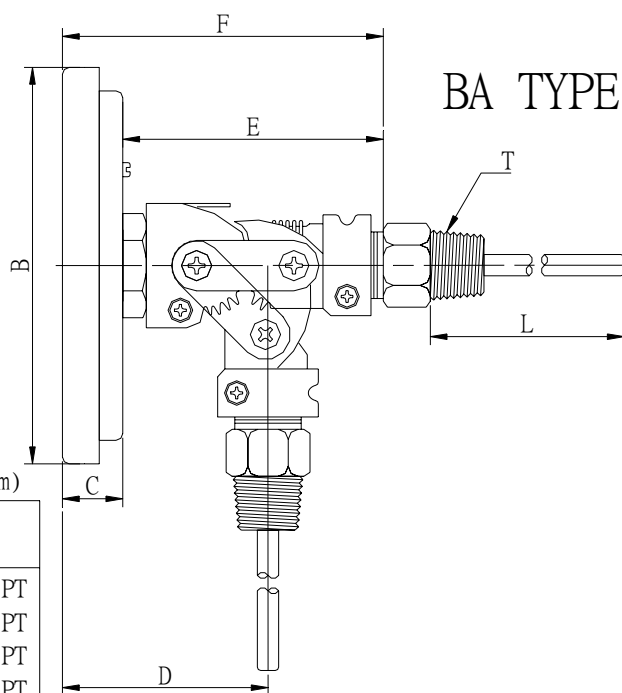
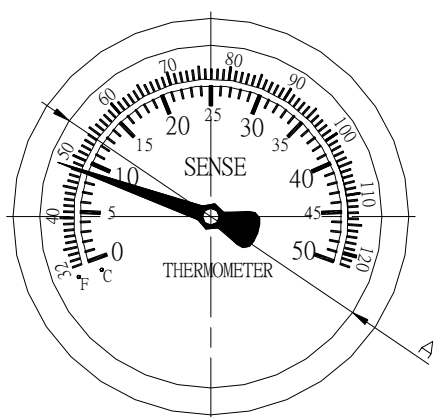


雙金屬溫度計 BI-METAL DIAL THERMOMETERS

BA(A)型 任意角度型 BA TYPE ADJUSTABLE ANGLE



Note:
 When ordering specify
 1.Type No.
 2.Case Dial.
 3.Temperature Range.
 4.Connection.
 5.Stem Dial.
 6.Stem Length.



| Type No. | A | B | C | D | E | F | T |
|----------|-----|-----|----|----|----|----|--------|
| BA3 | 75 | 91 | 18 | 60 | 75 | 93 | 1/4"PT |
| BA4 | 100 | 119 | 18 | 60 | 75 | 93 | 3/8"PT |
| BA5 | 125 | 141 | 18 | 60 | 75 | 93 | 1/2"PT |
| BA6 | 150 | 166 | 18 | 60 | 75 | 93 | 3/4"PT |

Specifications.

- Case Material:304SS、316SS
- Case Dial: 3"、4"、5"、6"
- Stem Material:316SS
- Temperature Range:-50~600°C
- Dial Color:Black figure on non-glaring white dial
- Hermetic sealed case:Yes.
- Enclosure class:IP65.
- Windows:Safety Glass.
- Connection:1/2" NPT
- Stem Length:By order.
- Accuracy:±1%F.S..
- Stem Dial:6mm、6.35mm、8mm.
- Type:BA TYPE
- Applications:Transformer、petrochemicals、driers、foods、air conditioning equip、boilers & other general industrial uses.

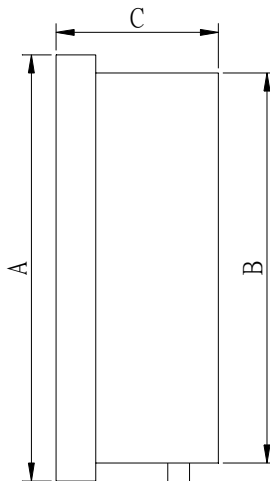
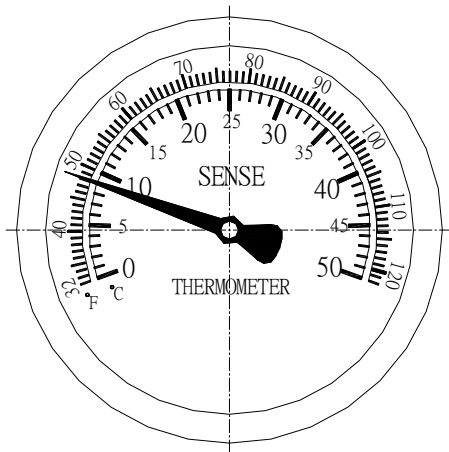


L型液體膨漲式溫度計 INDUSTRIAL THERMOMETERS

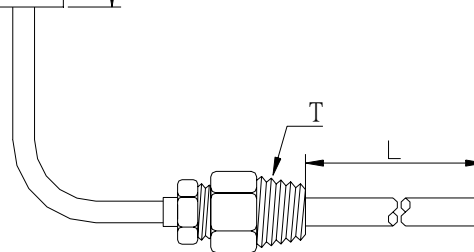
HL TYPE STAINLESS STEEL CASE



Note:
 When ordering specify
 1.Type No.
 2.Case Dial.
 3.Temperature Range.
 4.Connection.
 5.Stem Length.



HL TYPE



(mm)

| Type No. | A | B | C | T | L |
|----------|-----|-----|----|------|----------|
| HS3 | 84 | 75 | 47 | 1/2" | By order |
| HS4 | 118 | 108 | 45 | 3/4" | |
| HS6 | 160 | 148 | 45 | | |

Specifications.

- 1.Case Material: STAINLESS STEEL #304、#316
- 2.Case Length:3"、4"、6"
- 3.Stem Material: STAINLESS STEEL #304、#316
- 4.Temperature Range:-50~600°C
- 5.Lens:Glass.
- 6.Connection:1/4"PT、3/8"PT、1/2"PT、3/4"PT、1"PT(NPT、BSP)
- 7.Stem Length:By order.
- 8.Accuracy:±1%F.S..
- 9.Type:HL TYPE
- 10.Options:Special range, connections,lens and stem length.



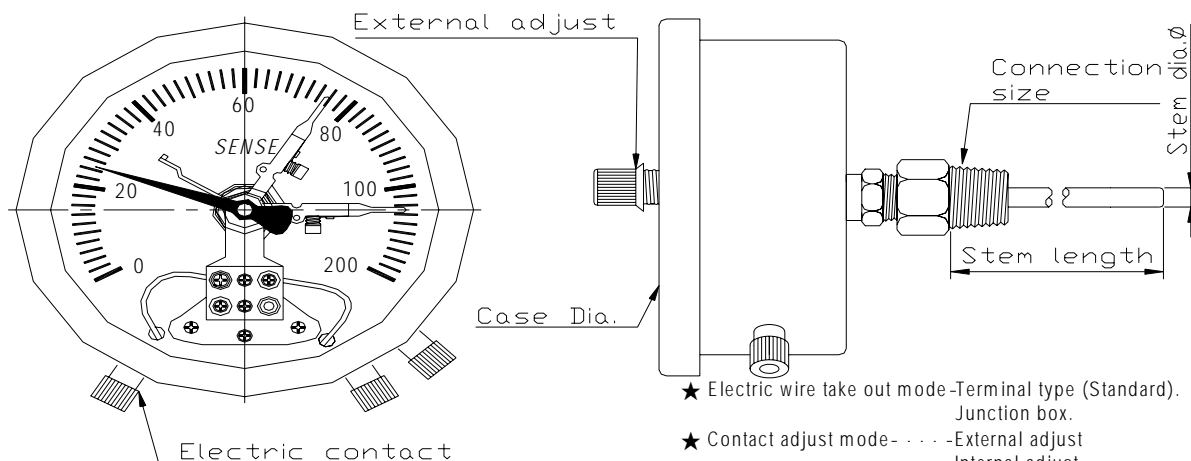
直結型 液體膨脹式 溫度計 (附電氣接點)

HT-1A、2A TYPE STAINLESS STEEL CASE INDUSTRIAL THERMOMETERS



Note:
 When ordering specify
 1.Type No.
 2.Case Dial.
 3.Temperature Range.
 4.Connection.
 5.Stem Length.
 6.Stem Dial.
 7.Contact Type.

HT-2A TYPE



- ★ Electric wire take out mode - Terminal type (Standard).
Junction box.
- ★ Contact adjust mode - External adjust
Internal adjust
- ★ Resistance load - 125V AC 5A
250V AC 5A
30V DC 5A
125V DC 0.4A
- ★ Contact switch - Upper limit type
Lower limit type
Upper & lower limit type

Specifications.

1. Case Material: STAINLESS STEEL #304、#316
2. Case Dia: 3"、4"
3. Stem Material: STAINLESS STEEL #304、#316
4. Temperature Range: -50 ~ 600°C
5. Lens: Glass.
6. Connection: 1/4"PT、3/8"PT、1/2"PT、3/4"PT、1"PT(NPT、BSP)
7. Stem Length: By order.
8. Accuracy: ±1%F.S.
9. Type: HT-1A、2A TYPE
10. Options: Special range, connections, lens and stem length.



直結型 液體膨脹式 溫度計 (附電氣接點)

HS-1A、2A TYPE STAINLESS STEEL CASE INDUSTRIAL THERMOMETERS

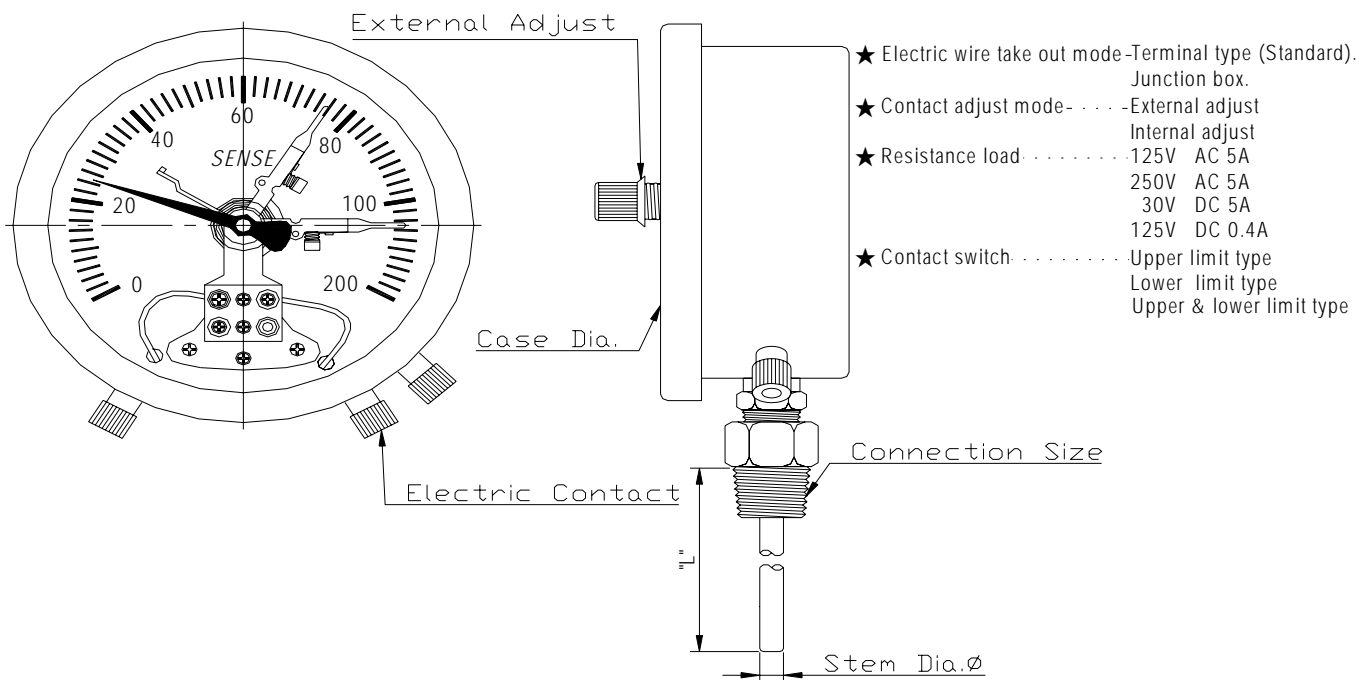


Note:

When ordering specify

- 1.Type No.
- 2.Case Dial.
- 3.Temperature Range.
- 4.Connection.
- 5.Stem Length.
- 6.Stem Dial.
- 7.Contact Type.

HS-2A TYPE



Specifications.

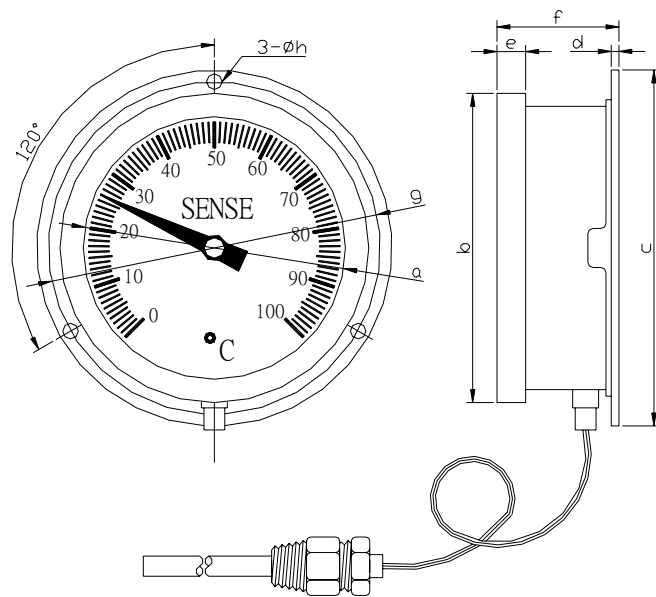
- 1.Case Material:STAINLESS STEEL #304、#316
- 2.Case Dia:3"、4"
- 3.Stem Material:STAINLESS STEEL #304、#316
- 4.Temperature Range:-50~600°C
- 5.Lens:Glass.
- 6.Connection:1/4"PT、3/8"PT、1/2"PT、3/4"PT、1"PT(NPT、BSP)
- 7.Stem Length:By order.
- 8.Accuracy:±1%F.S.
- 9.Type:HS-1A、2A TYPE
- 10.Options:Special range, connections,lens and stem length.



隔測壁掛式溫度計 *LIQUID-FILLED THERMOMETERS* *MW TYPE REMOTE READING*



Note:
 When ordering specify
 1.Type No.
 2.Case Dial.
 3.Temperature Range.
 4.Capillary Length
 5.Connection.
 6.Stem Dial.
 7.Stem Length.



MW4 TYPE
 MW3 TYPE

(mm)

| Type No. Symbol | a | b | c | d | e | f | g |
|--------------------|-----|-----|-----|---|----|----|-----|
| MW4 | 101 | 119 | 137 | 3 | 11 | 47 | 122 |
| MW3 | 70 | 85 | 101 | 1 | 11 | 47 | 90 |

Specifications.

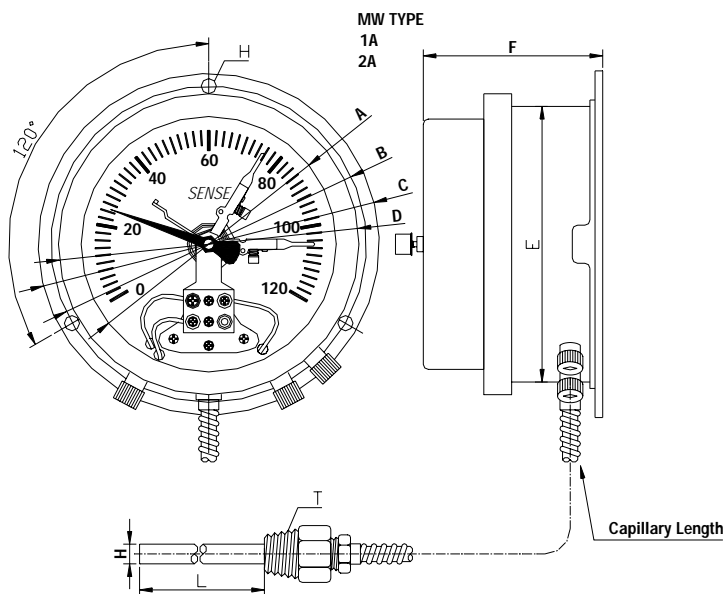
- 1.Case Material:304、316 s.s.
- 2.Case Dial:3"φ、4"φ、6"φ
- 3.Stem Material:304、316s.s.
- 4.Temperature Range:-50~600°C
- 5.Capillary Length:STD 3M.
- 6.Windows:Glass.
- 7.Connection:1/4"PT、3/8"PT、1/2" PT、3/4"PT、1"PT(NPT、BSP)
- 8.Stem Length:By order.
- 9.Accuracy:±1%F.S..
- 10.Type:MW3、MW4、MW6 TYPE
- 11.Appliactions:Transformer、petrochemicals、driers、foods、air conditioning equip、boilers & other general industrial uses.



隔測壁掛式溫度計(附接點) LIQUID-FILLED THERMOMETERS MW-1A、2A型 MW-1A、2A TYPE REMOTE READING



Note:
When ordering specify
1.Type No.
2.Case Dial.
3.Temperature Range.
4.Capillary Length
5.Connection.
6.Stem Dial.
7.Stem Length.



| Type No. | A | B | C | D | E | F | H | T | L |
|--------------------|-----|-----|-----|-----|-----|----|----|------|----------|
| Symbol MW 1A-2A | 102 | 124 | 139 | 118 | 108 | 88 | 12 | 1/2" | By order |

(mm)

Specifications.

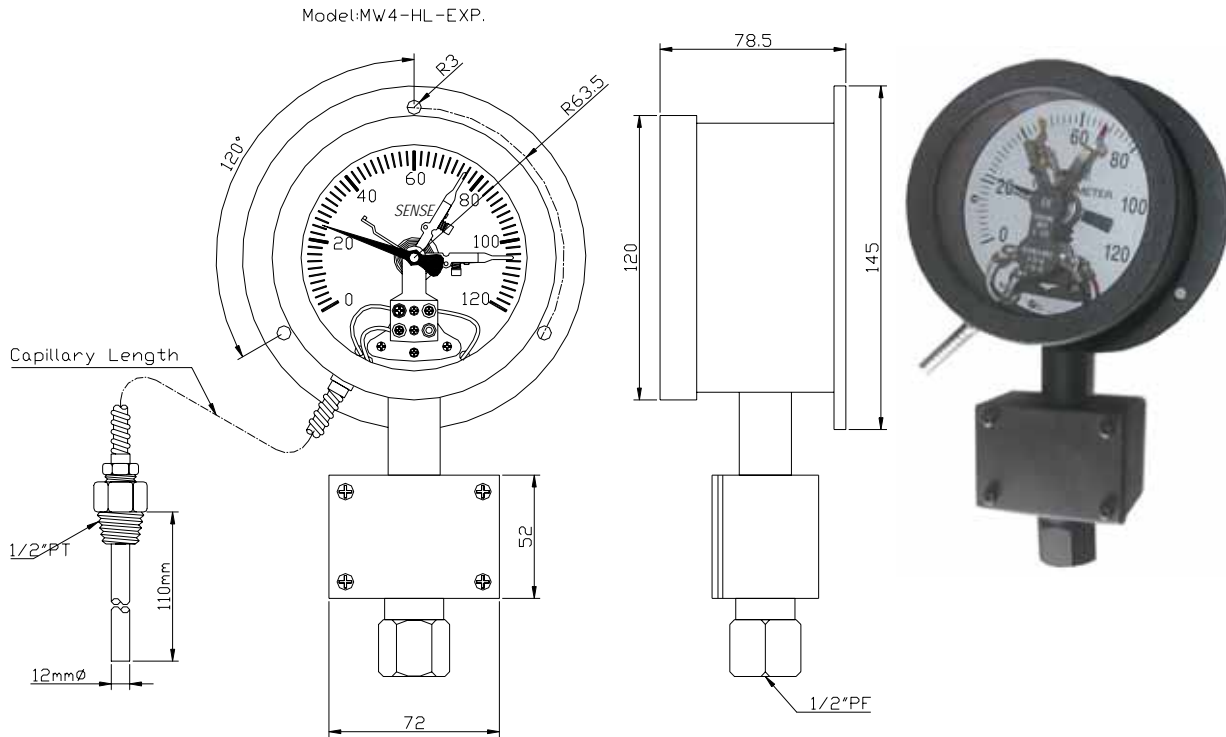
- 1.Case Material:304、316 s.s.
- 2.Case Dial:3" ⁰、4" ⁰、6" ⁰
- 3.Stem Material:304、316s.s.
- 4.Temperature Range:-50~600°C
- 5.Windows:Glass.
- 6.Capillary Length:STD 3M.
- 7.Connection:1/4"PT、3/8"PT、1/2" PT、3/4"PT、1"PT(NPT、BSP)
- 8.Stem Length:By order.
- 9.Accuracy:±1%F.S..
- 10.Type:MW-1A、MW-2A TYPE
- 11.Appliactions:Transformer、petrochemicals、driers、foods、air conditioning equip、boilers & other general industrial uses.



隔測壁掛型 液體膨脹式 溫度計 (附電氣接點)

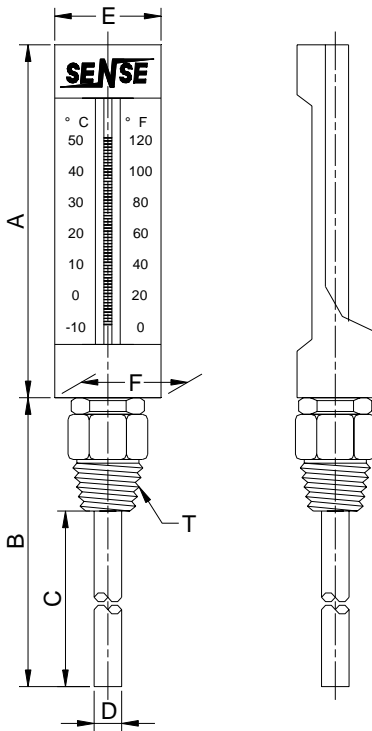
MW4-HL-EXP. TYPE STAINLESS STEEL CASE INDUSTRIAL THERMOMETERS

Explosion-protected type



Specifications.

1. Case Material: #304
2. Case Dia: 4"
3. Stem Material: STAINLESS STEEL #304
4. Temperature Range: 0 ~ 120°C
5. Capillary Length: :STD. 3M
6. Lens: Tempered glass.
7. Connection: 1/2" PT
8. Stem Length: By order.
9. Electric wire take out mode: Junction box.
10. Contact adjust mode: Internal adjust
11. Resistance load: 250V AC 5A
12. Contact switch: Upper & lower limit type
13. Accuracy: $\pm 1\%$ F.S.
14. Type: MW4-HL-EXP. TYPE
15. Options: Special range, connections, lens and stem length.



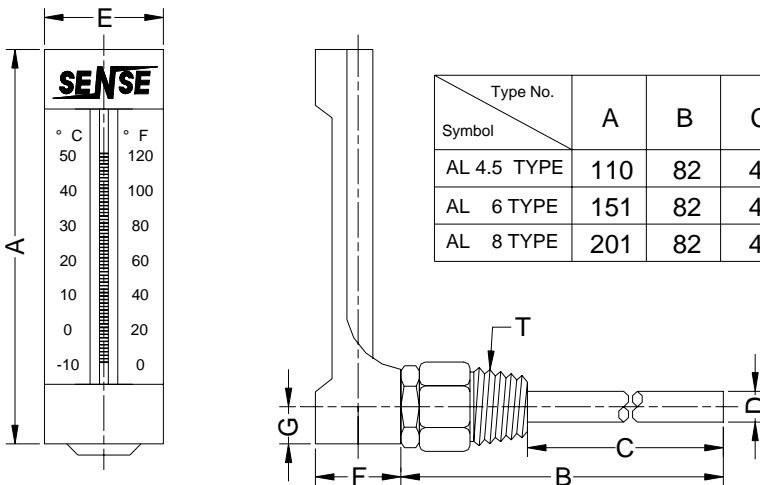
AS TYPE

(mm)

| Type No. Symbol | A | B | C | D | E | F | T | |
|--------------------|-----|----|----|----|----|----|------|------|
| AS 4.5 | 110 | 82 | 49 | 10 | 32 | 32 | 1/2" | 3/4" |
| AS 6 | 150 | 82 | 49 | 10 | 35 | 35 | 1/2" | 3/4" |
| AS 8 | 199 | 82 | 49 | 10 | 35 | 35 | 1/2" | 3/4" |

AL TYPE

(mm)



| Type No. Symbol | A | B | C | D | E | F | G | T | |
|--------------------|-----|----|----|----|----|----|----|------|------|
| AL 4.5 TYPE | 110 | 82 | 49 | 10 | 35 | 29 | 14 | 1/2" | 3/4" |
| AL 6 TYPE | 151 | 82 | 49 | 10 | 35 | 29 | 11 | 1/2" | 3/4" |
| AL 8 TYPE | 201 | 82 | 49 | 10 | 35 | 29 | 14 | 1/2" | 3/4" |

SPECIFICATIONS:

1. SCALE LENGTH: 4½" (110mm) , 6" (150mm) , 8" (200mm)
2. TEMP. RANGE: -30 ~ 600°C / °F
3. CASE: Oxidized aluminum alloy.
4. LENS: Glass.
5. CONNECTION: 1/2" NPT/BSP
Straight or angle form
6. TUBE: Glass tube , magnifying red or blue liquid
7. OTHER OPTION UPON REQUEST



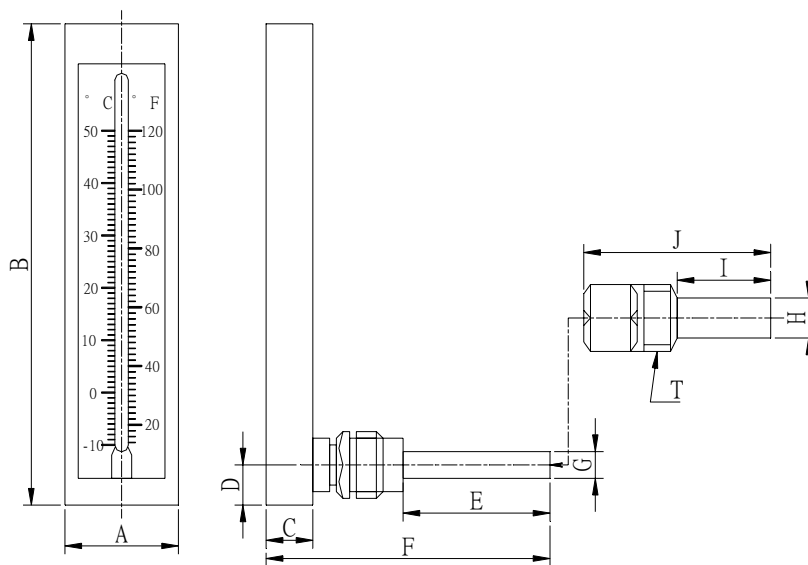


工業用 角板型溫度計 INDUSTRIAL THERMOMETERS TL型 TL TYPE GLASS TUBE-PLASTIC CASE.



Note:
When ordering specify
1.Type No.
2.Case Length
3.Temperature Range.
4.Connection.
5.Stem Length.

TL TYPE



(mm)

| Type No. Symbol | A | B | C | D | E | F | G | H | I | J | T |
|--------------------|----|-----|----|----|----|----|----|----|----|----|------|
| TL TYPE | 38 | 164 | 17 | 12 | 50 | 93 | 10 | 13 | 32 | 64 | 1/2" |

Specifications.

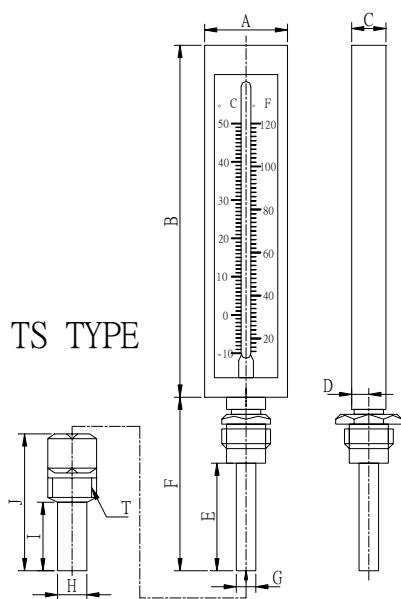
- 1.Case Material:Plastic Lens:Glass.
- 2.Scale Length:4 1/2"(110mm) 、 6"(150mm) 、 8"(200mm).
- 3.Stem Material:Brass 、 #316ss 、 electroplate
- 4.Temperature Range:-10~110°F 、 -20~120°F 、 0~160°F 、 30~240°F 、 50~400°F
-40~50°C 、 -20~45°C 、 0~80°C 、 0~160°C 、 0~200°C
-40~110°F & °C 、 -5~50°F & °C 、 0~120°F & °C 、 0~150°F & °C 、 30~240°F & °C
- 5.Tube:Glass tube 、 magnifying red or blue liquid.
- 6.Connection:1/2" NPT(NPT 、 BSP)
- 7.Stem Length:By order.
- 8.Accuracy:±1%F.S..
- 9.Type:TS TYPE
- 10.Options:Special range, connections,lens and stem length.



工業用 角板型溫度計 INDUSTRIAL THERMOMETERS TS型 TS TYPE GLASS TUBE-PLASTIC CASE.



Note:
When ordering specify
1.Type No.
2.Case Length
3.Temperature Range.
4.Connection.
5.Stem Length.



(mm)

| Type No. Symbol | A | B | C | D | E | F | G | H | I | J | T |
|--------------------|----|-----|----|----|----|----|----|----|----|----|------|
| TS TYPE | 38 | 164 | 17 | 10 | 50 | 76 | 10 | 13 | 32 | 64 | 1/2" |

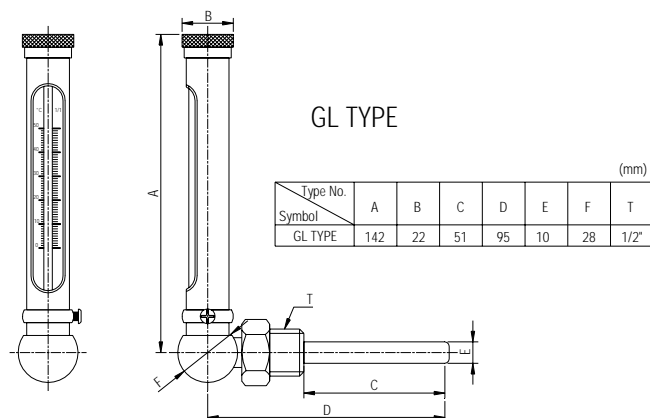
Specifications.

- 1.Case Material:Plastic
- 2.Scale Length:4 1/2"(110mm) 、 6"(150mm) 、 8"(200mm).
- 3.Stem Material:Brass 、 #316ss 、 electroplate
- 4.Temperature Range: -10~110°F 、 -20~120°F 、 0~160°F 、 30~240°F 、 50~400°F
-40~50°C 、 -20~45°C 、 0~80°C 、 0~160°C 、 0~200°C
-40~110°F & °C 、 -5~50°F & °C 、 0~120°F & °C 、 0~150°F & °C 、 30~240°F & °C
- 5.Lens:Glass.
- 6.Tube:Glass tube 、 magnifying red or blue liquid.
- 7.Connection:1/2" NPT(NPT 、 BSP)
- 8.Stem Length:By order.
- 9.Accuracy:± 1%F.S..
- 10.Type:TS TYPE
- 11.Options:Special range, connections,lens and stem length.



工業用圓筒型溫度計 INDUSTRIAL THERMOMETERS

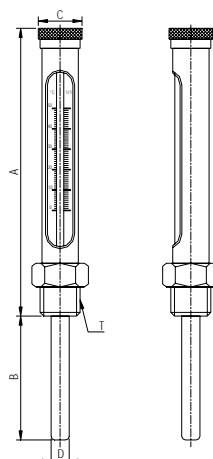
GS、GL型 GS、GL TYPE PLATED BRASS CASE



GS TYPE

| Type No. | A | B | C | D | T |
|----------|-----|----|----|----|------|
| Symbol | | | | | |
| GS TYPE | 150 | 63 | 28 | 10 | 1/2" |

(mm)



Note:
 When ordering specify
 1.Type No.
 2.Case Length
 3.Temperature Range.
 4.Connection.
 5.Stem Length.

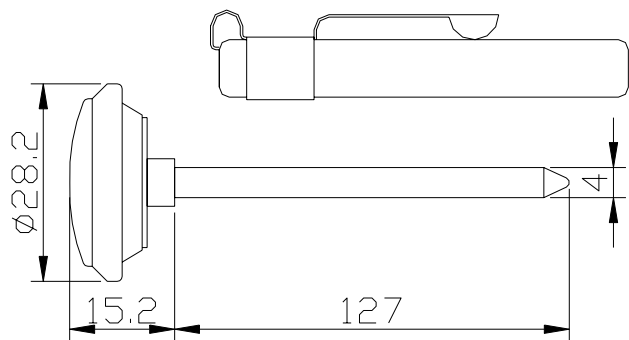
Specifications.

- 1.Case Material:Plated brass case.
- 2.Case Length:4 1/2"(110mm) 、6"(150mm) 、8"(200mm).
- 3.Stem Material:Brass 、#316ss 、electroplate
- 4.Temperature Range:-50 ~ 600°C
- 5.Lens:Glass.
- 6.Tube:Glass tube 、magnifying red or blue liquid.
- 7.Connection:1/4"PT 、3/8"PT 、1/2" PT 、3/4"PT 、 1"PT(NPT 、BSP)
- 8.Stem Length:By order.
- 9.Accuracy: ± 1%F.S..
- 10.Type:GS TYPE 、GL TYPE
- 11.Options:Special range, connections,lens and stem length.



BI-Metal Thermometers

Pocket Test - - - -1"



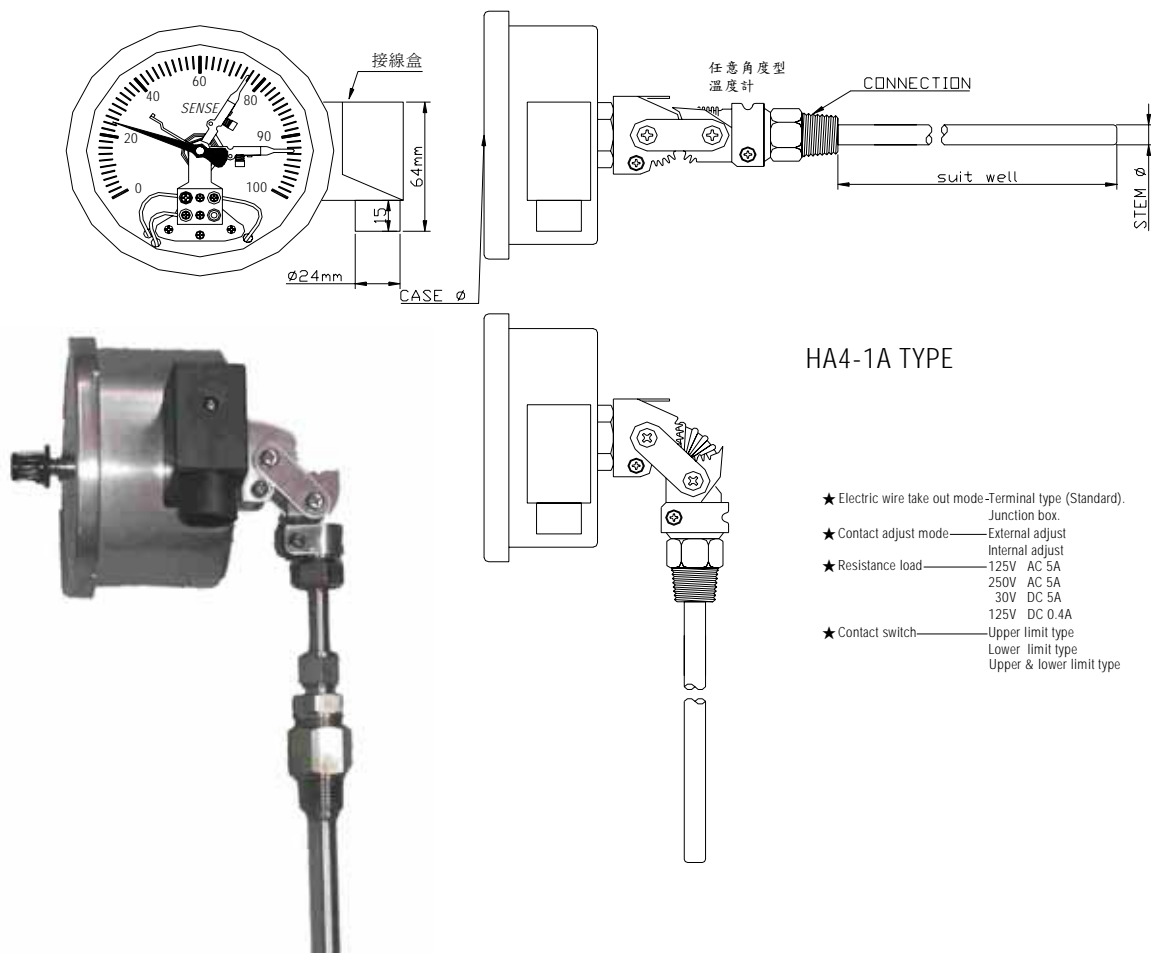
| SPECIFICATIONS: | |
|-------------------|---|
| Case and bezel: | SUS 304 stainless steel, hermetically sealed case |
| Lens: | Plastic |
| Pointer: | Aluminum, black or red painted |
| Dial: | Aluminum, white background, black graduation and lettering |
| Stem: | Sus304 stainless steel 4mm diameter, 5" stem length is standard |
| Accuracy: | +/-1.0% |
| Pocket sheath: | Plastic |
| Clip: | Sus304 |
| Temperature range | -30~50、-40~70、-20~110、0~100、10~150、0~200、0~250、0~300°C |
| Range | (Other ranges available) |
| Options: | Special range, stem and lens |



多角度型液體膨漲式溫度計 (附電氣接接點)

LIQUID-FILLED THERMOMETERS

HA-1A1B TYPE EVERY ANGLE



Specifications.

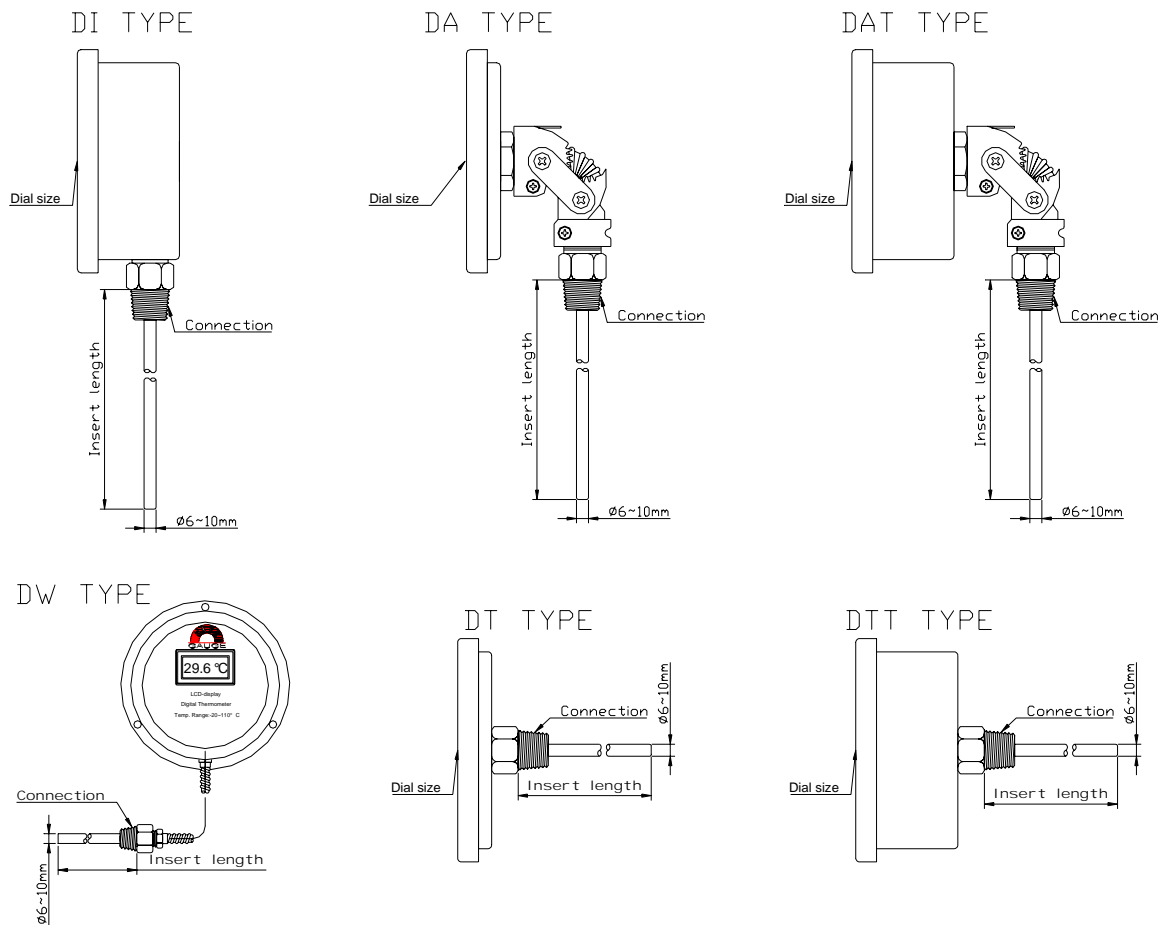
1. Case Material: 304 、 316s.s.
2. Case Dial: 4" ^Ø 、 5" ^Ø 、 6" ^Ø
3. Stem Material: 316s.s.
4. Stem O.D.: 6 、 8 、 10 、 12mm.
5. Temperature Range: -50 ~ 600°C
6. Windows: Safety Glass.
7. Enclosure Class: IP67.
8. Connection: 1/4" PT 、 3/8" PT 、 1/2" PT 、 3/4" PT 、 1" PT (NPT 、 BSP)
9. Stem Length: By order.
10. Accuracy: ± 1% F.S..
11. Type: HA-1A1B TYPE
12. Applications: Transformer 、 petrochemicals 、 driers 、 foods 、 air conditioning equip 、 boilers & other general industrial uses.

Note:

- When ordering specify
1. Type No.
 2. Case Dial.
 3. Temperature Range.
 4. Contact type
 5. Connection.
 6. Stem Dial.
 7. Stem Length.

LCD-display Digital Thermometer

LCD series



Specifications.

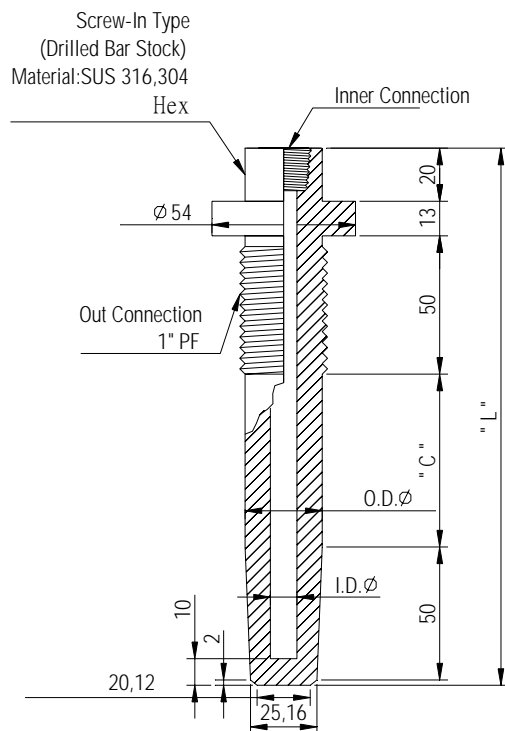
15. Models:DT 、 DTT 、 DI 、 DA 、 DAT Type
16. Case Material:304SS 、 316SS
17. Case Dial: 3" \emptyset 、 4" \emptyset
18. Stem Material:316SS
19. Temperature Range:-50 ~ 150°C
20. Ambient temperature:60°C
21. Enclosure class:Weather Proof
22. Connection:1/2" NPT
23. Stem Length:By order.
24. Accuracy: $\pm 0.5\%$ F.S.(linear deviation: $\pm 1\%$ of F.S.)
25. Stem Dial:6.35 ~ 10mm





THERMOWELL

SCREW-IN TYPE (Drilled Bar Stock)



Specifications.

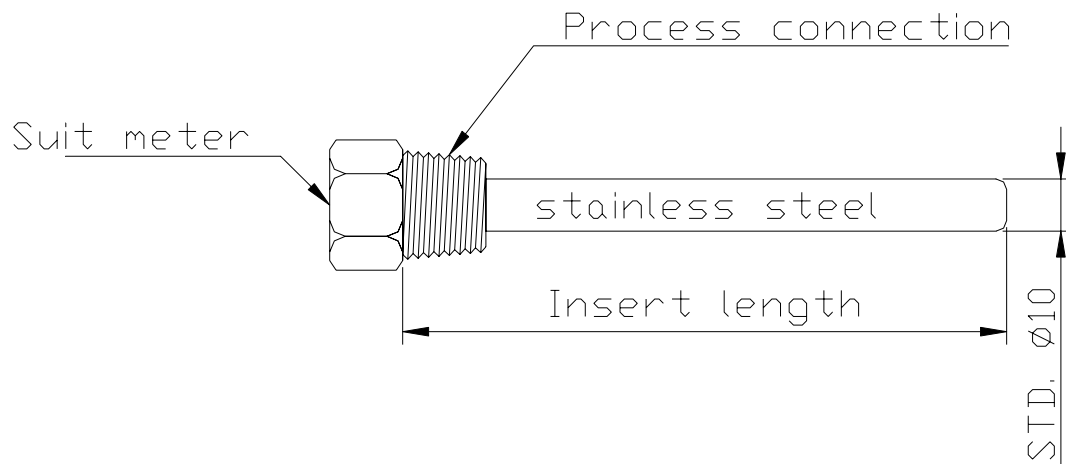
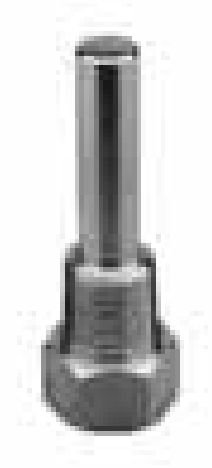
1. Structure : Solid Drilled From Stockbar
2. Thermowell Insert Length: "C" 、 "L" 、 By Order
3. Thermowell I.D.: Stem O.D.+1mm 、 By Order
4. Thermowell O.D.: 18mm 、 29mm 、 By Order
5. Stem Material: 316 S.S. 304S.S.
6. Inner Connection: 1/2"NPT 、 By Order
7. Process Connection: 1"PF 、 By Order



THERMOWELL

Threaded Type (Straight)

- Threaded, welded, flanged, and vanstone types
- For many types of thermometers and thermocouples
- Lagging or built up extensions available
- Brass, carbon steel, titanium, tantalum, and free machining carbon steel
- Drilled from solid piece bar stock
- Test thermowells with cast iron plugs and chains
- 48-hour delivery available on nonstandard items

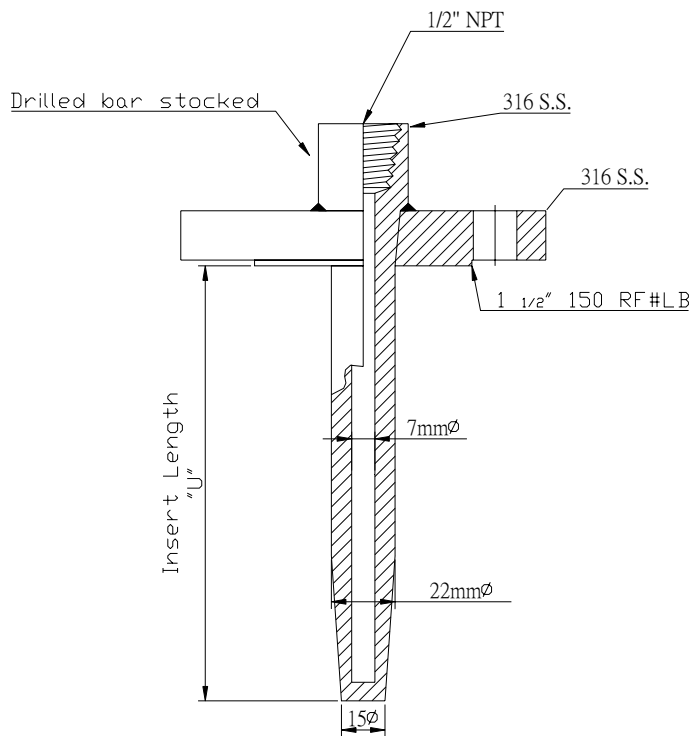


- Thermowell material
- Brass
- Steel
- Stainless Steel (STD.)
- Monel
- Inconel,
- Hastelloy



法蘭式 保護管 FLANGE THERMOWELL

錐型 TAPER TYPE



Specifications.

1. Structure : 22mm \times 15mm \varnothing Solid Drilled From Stockbar
2. Insert Length: By Order
3. Well O.D.: By Order
4. Stem Material: 316 S.S. 304S.S.
5. Conn. Size & Rating: By Order



Mechanism & Circurt Examples of Electric Contactor

Thermometers with contactor have made possible the automation of temperature control and Increased the safety of energy consuming.

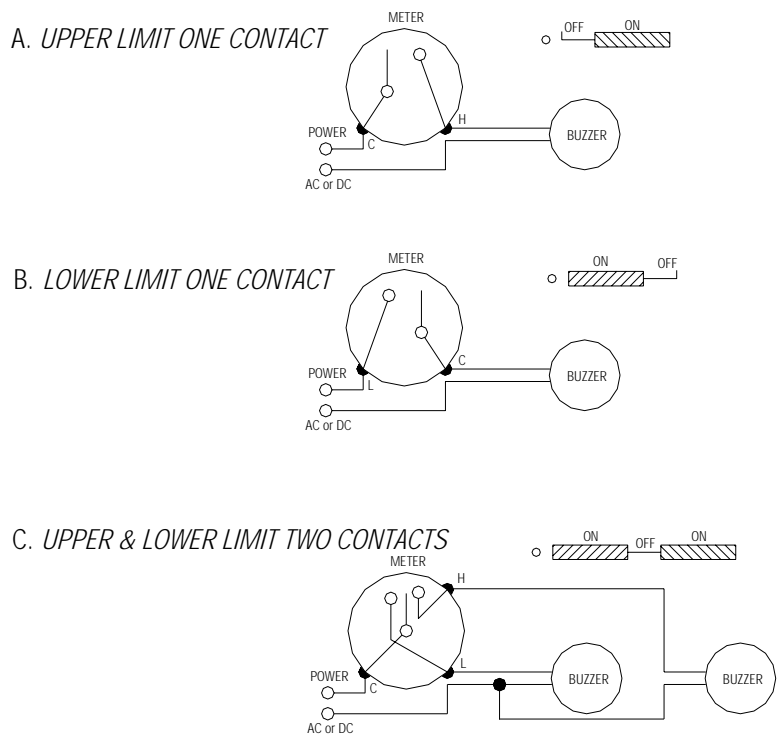
Electric contracts are switching mechanisms designed to be actuated by travel of thermometer

Indicating pointer points where the switch will open or close are regulated by adjustable(or fixed)

“set” hands.

Thermometers equipped with this optional feature will turn alarm signals “on” or “off”,as each set Hand switching point is reached.

And where appropriate relays are incorporated in the installation circuit, contacts will turn electric Motors, heaters,valves.....“on” or “off”.



Interpolation Factors

| °C | | °F | | °C | | °F | |
|------|---|-----|------|----|------|----|--|
| 0.56 | 1 | 1.8 | 3.33 | 6 | 10.8 | | |
| 1.11 | 2 | 3.6 | 3.89 | 7 | 12.6 | | |
| 1.67 | 3 | 5.4 | 4.44 | 8 | 14.4 | | |
| 2.22 | 4 | 7.2 | 5.00 | 9 | 16.2 | | |
| 2.78 | 5 | 9.0 | 5.56 | 10 | 18.0 | | |



Temperature Conversion Table

| -459.4~0 | | | 0~49 | | | 50~100 | | | 100~490 | | | 500~1000 | | |
|----------|--------|--------|-------|----|-------|--------|-----|-------|---------|-----|-----|----------|------|------|
| °C | | °F | °C | | °F | °C | | °F | °C | | °F | °C | | °F |
| -273 | -459.4 | | -17.8 | 0 | 32.0 | 10.0 | 50 | 122.0 | 38 | 100 | 212 | 260 | 500 | 932 |
| -268 | -450 | | -17.2 | 1 | 33.8 | 10.6 | 51 | 123.8 | 43 | 110 | 230 | 266 | 510 | 950 |
| -262 | -440 | | -16.7 | 2 | 35.6 | 11.1 | 52 | 125.6 | 49 | 120 | 248 | 271 | 520 | 968 |
| -257 | -430 | | -16.1 | 3 | 37.4 | 11.7 | 53 | 127.4 | 54 | 130 | 266 | 277 | 530 | 986 |
| -251 | -420 | | -15.6 | 4 | 39.2 | 12.2 | 54 | 129.2 | 60 | 140 | 284 | 282 | 540 | 1004 |
| -246 | -410 | | -15.0 | 5 | 41.0 | 12.8 | 55 | 131.0 | 66 | 150 | 302 | 288 | 550 | 1022 |
| -240 | -400 | | -14.4 | 6 | 42.8 | 13.3 | 56 | 132.8 | 71 | 160 | 320 | 293 | 560 | 1040 |
| -234 | -390 | | -13.9 | 7 | 44.6 | 13.9 | 57 | 134.6 | 77 | 170 | 338 | 299 | 570 | 1058 |
| -229 | -380 | | -13.3 | 8 | 46.4 | 14.4 | 58 | 136.4 | 82 | 180 | 356 | 304 | 580 | 1076 |
| -223 | -370 | | -12.8 | 9 | 48.2 | 15.0 | 59 | 138.2 | 88 | 190 | 374 | 310 | 590 | 1094 |
| -218 | -360 | | -12.2 | 10 | 50.0 | 15.6 | 60 | 140.0 | 93 | 200 | 392 | 316 | 600 | 1112 |
| -212 | -350 | | -11.7 | 11 | 51.8 | 16.1 | 61 | 141.8 | 99 | 210 | 410 | 321 | 610 | 1130 |
| -207 | -340 | | -11.1 | 12 | 53.6 | 16.7 | 62 | 143.6 | 100 | 212 | 413 | 327 | 620 | 1148 |
| -201 | -330 | | -10.6 | 13 | 55.4 | 17.2 | 63 | 145.4 | 104 | 220 | 428 | 332 | 630 | 1166 |
| -196 | -320 | | -10.0 | 14 | 57.2 | 17.8 | 64 | 147.2 | 110 | 230 | 446 | 338 | 640 | 1184 |
| -190 | -310 | | -9.44 | 15 | 59.0 | 18.3 | 65 | 149.0 | 116 | 240 | 464 | 343 | 650 | 1202 |
| -184 | -300 | | -8.89 | 16 | 60.8 | 18.9 | 66 | 150.8 | 121 | 250 | 482 | 349 | 660 | 1220 |
| -179 | -290 | | -8.33 | 17 | 62.6 | 19.4 | 67 | 152.6 | 127 | 260 | 500 | 354 | 670 | 1238 |
| -173 | -280 | | -7.78 | 18 | 64.4 | 20.0 | 68 | 154.4 | 132 | 270 | 518 | 360 | 680 | 1256 |
| -169 | -273 | -459.4 | -7.22 | 19 | 66.2 | 20.6 | 69 | 156.2 | 138 | 280 | 536 | 366 | 690 | 1274 |
| -168 | -270 | -454 | -6.67 | 20 | 68.0 | 21.1 | 70 | 158.0 | 143 | 290 | 554 | 371 | 700 | 1292 |
| -162 | -260 | -436 | -6.11 | 21 | 69.8 | 21.7 | 71 | 159.8 | 149 | 300 | 572 | 377 | 710 | 1310 |
| -157 | -250 | -418 | -5.56 | 22 | 71.6 | 22.2 | 72 | 161.6 | 154 | 310 | 590 | 382 | 720 | 1328 |
| -151 | -240 | -400 | -5.00 | 23 | 73.4 | 22.8 | 73 | 163.4 | 160 | 320 | 608 | 388 | 730 | 1346 |
| -146 | -230 | -382 | -4.44 | 24 | 75.2 | 23.3 | 74 | 165.2 | 166 | 330 | 626 | 393 | 740 | 1364 |
| -140 | -220 | -364 | -3.89 | 25 | 77.0 | 23.9 | 75 | 167.0 | 171 | 340 | 644 | 399 | 750 | 1382 |
| -134 | -210 | -346 | -3.33 | 26 | 78.8 | 24.4 | 76 | 168.8 | 177 | 350 | 662 | 404 | 760 | 1400 |
| -129 | -200 | -328 | -2.78 | 27 | 80.6 | 25.0 | 77 | 170.6 | 182 | 360 | 680 | 410 | 770 | 1418 |
| -123 | -190 | -310 | -2.22 | 28 | 82.4 | 25.6 | 78 | 172.4 | 188 | 370 | 698 | 416 | 780 | 1436 |
| -118 | -180 | -292 | -1.67 | 29 | 84.2 | 26.1 | 79 | 174.2 | 193 | 380 | 716 | 421 | 790 | 1454 |
| -112 | -170 | -274 | -1.11 | 30 | 86.0 | 26.7 | 80 | 176.0 | 199 | 390 | 734 | 427 | 800 | 1472 |
| -107 | -160 | -256 | -0.56 | 31 | 87.8 | 27.2 | 81 | 177.8 | 204 | 400 | 752 | 432 | 810 | 1490 |
| -101 | -150 | -238 | 0 | 32 | 89.6 | 27.8 | 82 | 179.6 | 210 | 410 | 770 | 438 | 820 | 1508 |
| -95.6 | -140 | -220 | 0.56 | 33 | 91.4 | 28.3 | 83 | 181.4 | 216 | 420 | 788 | 443 | 830 | 1526 |
| -90.0 | -130 | -202 | 1.11 | 34 | 93.2 | 28.9 | 84 | 183.2 | 221 | 430 | 806 | 449 | 840 | 1544 |
| -84.4 | -120 | -184 | 1.67 | 35 | 95.0 | 29.4 | 85 | 185.0 | 227 | 440 | 824 | 454 | 850 | 1562 |
| -78.9 | -110 | -166 | 2.22 | 36 | 96.8 | 30.0 | 86 | 186.8 | 232 | 450 | 842 | 460 | 860 | 1580 |
| -73.3 | -100 | -148 | 2.78 | 37 | 98.6 | 30.6 | 87 | 188.6 | 238 | 460 | 860 | 466 | 870 | 1598 |
| -67.8 | -90 | -130 | 3.33 | 38 | 100.4 | 31.1 | 88 | 190.4 | 243 | 470 | 878 | 471 | 880 | 1616 |
| -62.2 | -80 | -112 | 3.89 | 39 | 102.2 | 31.7 | 89 | 192.2 | 249 | 480 | 896 | 477 | 890 | 1634 |
| -56.7 | -70 | -94 | 4.44 | 40 | 104.0 | 32.2 | 90 | 194.0 | 254 | 490 | 914 | 482 | 900 | 1652 |
| -51.1 | -60 | -76 | 5.00 | 41 | 105.8 | 32.8 | 91 | 195.8 | | | | 488 | 910 | 1670 |
| -45.6 | -50 | -58 | 5.56 | 42 | 107.6 | 33.3 | 92 | 197.6 | | | | 493 | 920 | 1688 |
| -40.0 | -40 | -40 | 6.11 | 43 | 109.4 | 33.9 | 93 | 199.4 | | | | 499 | 930 | 1706 |
| -34.4 | -30 | -22 | 6.67 | 44 | 111.2 | 34.4 | 94 | 201.2 | | | | 504 | 940 | 1724 |
| -28.9 | -20 | -4 | 7.22 | 45 | 113.0 | 35.0 | 95 | 203.0 | | | | 510 | 950 | 1742 |
| -23.3 | -10 | 14 | 7.78 | 46 | 114.8 | 35.6 | 96 | 204.8 | | | | 516 | 960 | 1760 |
| -17.8 | 0 | 32 | 8.33 | 47 | 116.6 | 36.1 | 97 | 206.6 | | | | 521 | 970 | 1778 |
| | | | 8.89 | 48 | 118.4 | 36.7 | 98 | 208.4 | | | | 527 | 980 | 1796 |
| | | | 9.44 | 49 | 120.2 | 37.2 | 99 | 210.2 | | | | 532 | 990 | 1814 |
| | | | | | | 37.8 | 100 | 212.0 | | | | 538 | 1000 | 1832 |

$$t \text{ } ^\circ\text{C} = \left(\frac{9}{5}t \pm 32\right) \text{ } ^\circ\text{F}$$

$$t \text{ } ^\circ\text{F} = \frac{5.(t-32)}{9} \text{ } ^\circ\text{C}$$