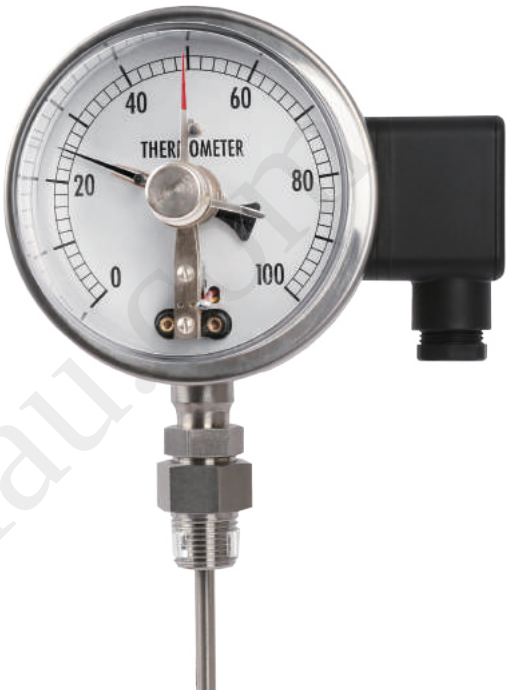
# Bimetal thermometer with electrical contact
## Model : T751(H), T752(H/L), T753(L), T754(H/HH)

Spec. sheet no. TD07-03

### Service intended
Contact type temperature gauge is installed with electric contact actuated by pointer. It provides the function which electrical circuit can be opened or closed by manual setpoint. It is applicable where signal is required (Audible or visual alarm) for control of resistance or any other application with auxiliary relay and contact.




### Nominal diameter
100 mm

### Accuracy
±2.0 % of full scale

### Temperature element
Coiled bimetal

### Working range
Maximum scale value

### Degree of protection
EN60529/IEC529/IP65

## Standard features

### Location of stem
Bottom connection, direct
Center back connection, direct

### Case
304SS

### Cover
304SS

### Window
Acrylic

### Dial
White aluminium with black graduation

### Contacts
Maximum voltage : 250 V AC
Contact rating : AC 220 V, 0.25 A
DC 100 V, 0.5 A
With max. no of contact : 2 sets per gauge

### Pointer
Black painted aluminium alloy

### Stem
6.0, 6.4, 8.0 and 10.0 mm
304SS, 316SS and 316L SS

### Stem, process connection
¼", ⅜", ½", ¾" PT, NPT and PF

### Option
±1.0 % of full scale

Codienhaiau.com

## Main order — Ordering information

### 1. Base model

| | |
|---|---|
| **T751** | Bimetal thermometer with electric contact (High alarm) |
| **T752** | Bimetal thermometer with electric contact (High and low alarm) |
| **T753** | Bimetal thermometer with electric contact (Low alarm) |
| **T754** | Bimetal thermometer with electric contact (High and hihigh alarm) |

### 2. Nominal diameter (mm)

| | |
|---|---|
| **4** | 100 |

### 3. Type of mounting

| | |
|---|---|
| **W** | Bottom connection, direct |
| **X** | Center back connection, direct |

### 4. Stem material

| | |
|---|---|
| **0** | 304SS |
| **1** | 316SS |
| **2** | 316L SS |

### 5. Stem, process connection

| | |
|---|---|
| **A** | None |
| **C** | ¼" |
| **D** | ⅜" |
| **E** | ½" |
| **F** | ¾" |

### 6. Stem connection type (CF: Compression fitting)

| | |
|---|---|
| **A** | None |
| **E** | CF + PT |
| **F** | CF + NPT |
| **G** | CF + PF |
| **H** | MT + PT (Movable thread) |
| **I** | MT + NPT (Movable thread) |
| **J** | MT + PF (Movable thread) |
| **S** | Clamp (Sanitary type flange) |

### 7. Stem outer diameter (mm)

| | |
|---|---|
| **0** | 6.0 |
| **1** | 6.4 |
| **2** | 8.0 |
| **3** | 10.0 (Not available process connection, ¼") |

### 8. Range

| | |
|---|---|
| **XXX** | Refer to scale range table |

### 9. Insertion length

| | |
|---|---|
| **X** | Refer to insertion length table |

### 10. Accessories

| | |
|---|---|
| **0** | None |
| **1** | Thermowell |
| **2** | Special accuracy (±1.0 % of full scale) |
| **3** | Thermowell and special accuracy |

**Sample ordering code**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|
| **T751** | **4** | **W** | **0** | **E** | **C** | **3** | **XXX** | **X** | **1** |

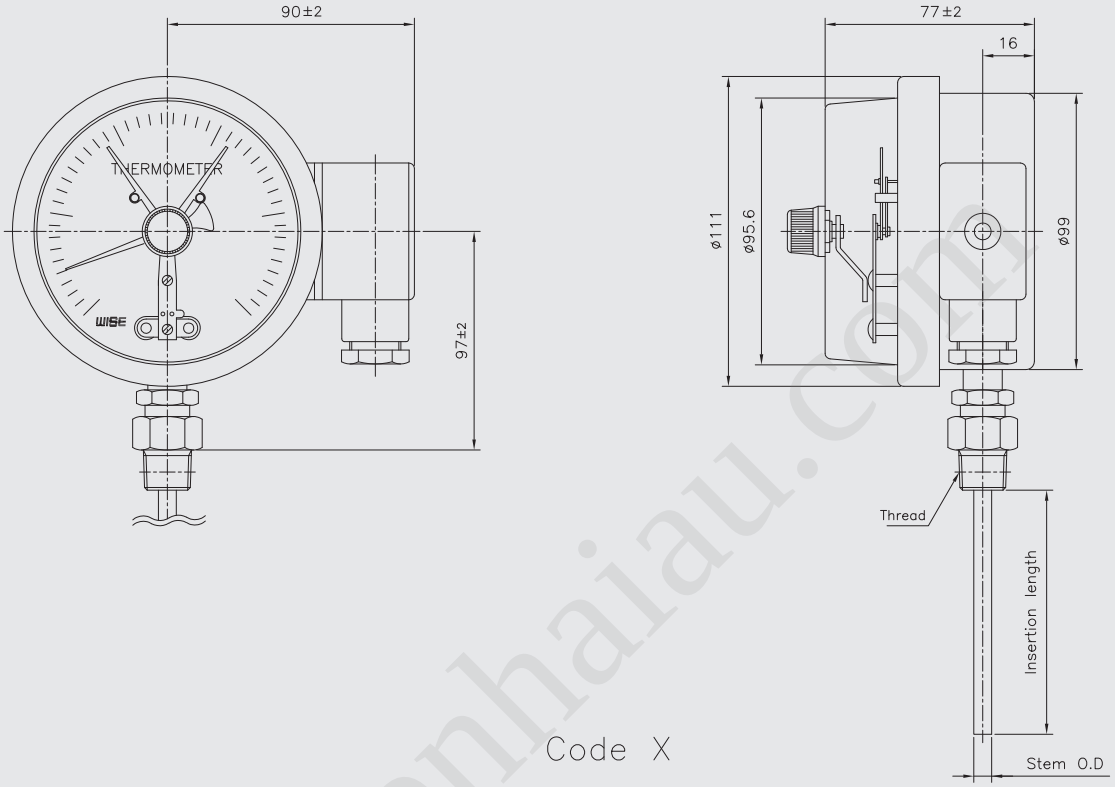
© WISE Control Inc. All rights reserved. ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.



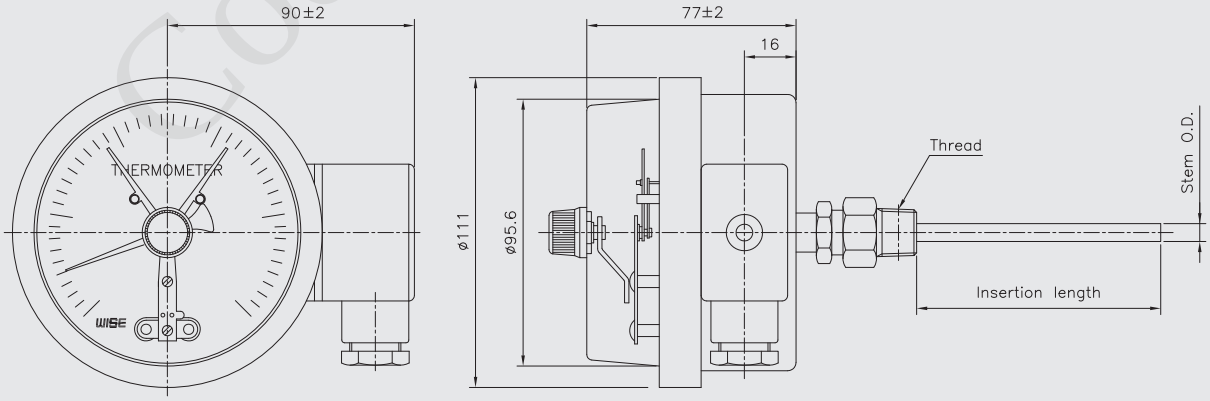
Codienhaiau.com

# T75X : Type of mounting

Code W




Code X




Codienhaiau.com

## Snap-action contacts

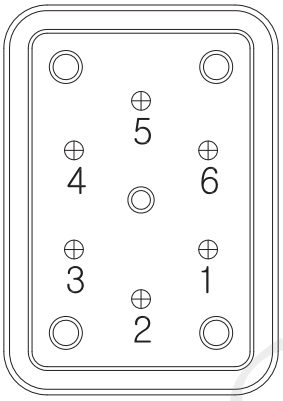
### General

Electromechanical limit switches in pointer type measuring instruments are auxiliary current switches which open or close electrical circuits at set limit value by means or a contacts arm which is moved by the actual value pointer. The snap action contact is a mechanical contact for switching capacities up to 30 W 50 VA max. Contact making will be delayed or advanced in relation to the movement of the actual value pointer. To closed the circuit, the contact pin of the movable contact arm is attracted in a jump by the permanent magnet fasten to the supporting arm shortly before the set value has been reached. Due to the retention force of the magnet, snap action contacts are more resistance against shock and vibration. The switching safety is increased by the increased contact pressure. When the circuit is opened, the magnet keeps the contact arm in its place until the restoring force of the measuring element exceeds the magnetic force, and the contact opens in a jump.

### Technical data

| | |
|---|---|
| Normal operating voltage | Max. 250 V |
| Making and breaking current | Max. 1.0 A |
| Permanent current | Max. 0.6 A |
| Switching capacity | Max. 30 W 50 VA |
| Contact material | Ag80-Ni20 |
| Switching accuracy | Approx. 2-5 % of full scale value |
| No. of contact | Max. 2 |

## Terminal block arrangment




### 1. High alarm (S/M-1)

① Normal open
② Common
④ Ground

### 2. High and low alarm (S/M-21)

**Low alarm**
① Normal close
② Common
④ Ground

**High alarm**
② Common
③ Normal open

### 3. Low alarm (S/M-2)

① Normal close
② Common
④ Ground

### 4. Two high alarm (S/M-11)

**No.1 High alarm**
① Normal open
② Common
④ Ground

**No.2 High alarm**
② Common
③ Normal open

### 5. Two low alarm (S/M-22)

**No.2 Low alarm**
① Normal close
② Common
④ Ground

**No.1 Low alarm**
② Common
③ Normal close

### 6. Failsafe high and low alarm (S/M-12)

**High alarm**
② Common
③ Normal close
④ Ground

**Low alarm**
① Normal open
② Common

Codienhaiau.com

## Scale ranges

| Code | Scale range (℃) | Scale spacing (℃) | Minimum stem length (mm) | |
|---|---|---|---|---|
| | | | 6.0 and 6.4 | 8.0 and 10.0 |
| 032 | -50 ~ 50 | 2 | 55 | 50 |
| 037 | -50 ~ 100 | 5 | 45 | 35 |
| 054 | -30 ~ 50 | 2 | 70 | 60 |
| 059 | -30 ~ 100 | 5 | 50 | 45 |
| 061 | -30 ~ 120 | 2 | 45 | 35 |
| 069 | -20 ~ 50 | 2 | 80 | 70 |
| 074 | -20 ~ 100 | 2 | 45 | 45 |
| 079 | -20 ~ 150 | 5 | 40 | 35 |
| 084 | -10 ~ 50 | 1 | 95 | 80 |
| 099 | 0 ~ 50 | 1 | 110 | 70 |
| 100 | 0 ~ 60 | 1 | 95 | 80 |
| 101 | 0 ~ 70 | 2 | 80 | 60 |
| 102 | 0 ~ 80 | 1 | 70 | 90 |
| 104 | 0 ~ 100 | 2 | 55 | 50 |
| 106 | 0 ~ 120 | 2 | 50 | 45 |
| 109 | 0 ~ 150 | 2 | 45 | 35 |
| 114 | 0 ~ 200 | 5 | 35 | 35 |
| 119 | 0 ~ 250 | 5 | 35 | 30 |
| 124 | 0 ~ 300 | 5 | 35 | 25 |
| 129 | 0 ~ 350 | 5 | 30 | 25 |
| 134 | 0 ~ 400 | 5 | 80 | 65 |
| 144 | 0 ~ 500 | 10 | 70 | 60 |
| 154 | 0 ~ 600 | 10 | 70 | 60 |

## Insertion length

| Code | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Length (mm) | 50 | 60 | 70 | 80 | 100 | 120 | 130 | 150 | 175 | 200 | 225 | 250 |

| Code | D | E | F | G | H | J | K | L | M | N | P |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Length (mm) | 275 | 300 | 350 | 375 | 400 | 450 | 500 | 550 | 1,000 | 1,500 | 2,000 |

Codienhaiau.com

## Memo

Codienhaiau.com