

## Bimetal Thermometer Model TS

### FEATURES

- Robust, fully welded stainless steel construction
- Protection upto IP65
- Dry or liquid filled
- Silicone coil dampening provides vibration dampening and improves response time

### TYPICAL USES

- Water Treatment Industry
- HVAC Industry
- Maritime Industry
- Automotive Industry
- Manufacturing Industry
- Plastics and Rubber Industry
- Mechanical Engineering Industry
- Textile Industry
- Coatings Industry
- Power generation



### TECHNICAL SPECIFICATIONS

Dial Size:	Ø in
	mm 52, 65, 80, 100
	Inch 2", 2 1/2", 3", 4"

Connection Location: Lower or Back

Stem Diameter 6 mm, 8 mm and 9 mm

Stem Length: 60 ... 1000 mm

### MECHANICAL SPECIFICATION

Process Connection: G 1/2 A Male  
1/2 NPT Male  
others please see in the coding table

Accuracy For range  $\leq +400^{\circ}\text{C}$   $\pm 1\%$   
For range  $> +400^{\circ}\text{C}$   $\pm 2\%$

Max. Overtemperature limit For Range  $\leq 400^{\circ}\text{C}$  20% of Span  
For Range  $> 400^{\circ}\text{C}$   
Peak Overload  $600^{\circ}\text{C}$   
Continus Overload  $520^{\circ}\text{C}$

### KEY BENEFITS:

- High reliability and durability
- Perfectly designed for our HVAC thermowells

### MATERIALS

Process Connection Stainless steel 303 (1.4305)

Stem: Stainless steel 316L (1.4404) or 304L (1.4306)

Case/Ring: For Dial Size 52 mm and 65 mm:  
Head in rolled Stainless steel 303 (1.4305)

For Dial Size 80 mm, 100 mm:  
Head in galvanized Steel, bezel in neutral colored  
anodized aluminium

Window: Mineral glass, Acrylic glass

Dial: Aluminum, black marked

Pointer: Aluminum, black

Gaskets/Sealing: BUNA-N (NBR)

# Bimetal Thermometer Model TS

ORDERING CODE		EXAMPLE:	TS	H	=	052	A	L	B0704	X
<b>Model</b>										
TS	Bimetal Thermometer									
<b>Connection Location:</b>										
H	Co-axial back <small>[inadmissible for process connection A and N]</small>									
V	Vertical Lower <small>[inadmissible for mounting F; inadmissible for process connection L<sub>1</sub> and L<sub>2</sub>]</small>									
<b>Connection size:</b>										
052	dial size 52 mm									
065	dial size 65 mm									
080	dial size 80 mm									
100	dial size 100 mm									
<b>Mounting</b>										
A	with unthreaded shoulder <small>[inadmissible for process connection G2, G3, G4, G6, N2 and N4; inadmissible for connection style NX]</small>									
F	with back mounting flange <small>[inadmissible for process connection { A<sub>1</sub>, G2, G3, G4, G6, N<sub>1</sub>, N2 and N4; inadmissible for connection style AU, AX and NX]</small>									
S	with fixed threaded connection <small>[inadmissible for process connection { A<sub>1</sub>, L<sub>1</sub>, L<sub>2</sub> and N<sub>1</sub>; inadmissible for connection style AU and AX]</small>									
<b>Filling</b>										
-	Without filling									
L	Field with Silicone <small>[inadmissible for process connection { A<sub>1</sub>, L<sub>1</sub>, L<sub>2</sub> and N<sub>1</sub>; inadmissible for connection style AU and AX]</small>									
<b>Process Connection</b>										
A	Ø 15 Aluminium <small>[inadmissible for connection style NX]</small>									
I	Ø 15, AISI 303 / 1.4305 <small>[inadmissible for connection style NX]</small>									
L	Ø 15, galvanized brass									
I	Ø 15, AISI <small>[inadmissible for stem diameter and material 8I, 8X and 9X; inadmissible for connection style NX]</small>									
N	Ø 15, Nickel-plated Aluminium <small>[inadmissible for connection style NX]</small>									
G2	G ¼, AISI 303 / 1.4305 <small>[inadmissible for connection style AU, AX and NX]</small>									
G4	G ½, AISI 303 / 1.4305 <small>[inadmissible for connection style AU and AX]</small>									
G6	G ¾, AISI 303 / 1.4305 <small>[inadmissible for connection style AU, AX and NX]</small>									
N2	¼ NPT, AISI 303 / 1.4305 <small>[inadmissible for connection style AU, AX and NX]</small>									
N4	½ NPT, AISI 303 / 1.4305 <small>[total stem length L (IL) = min. 70 mm; inadmissible for connection style AU, AX and NX]</small>									
<b>Temperature Range</b>										
B0704	-70 ... +40°C									
B0404	-40 ... +40°C									
B0307	-30 ... +70°C									
B0312	-30 ... +120°C <small>[inadmissible for measuring system C]</small>									
B0317	-30 ... +170°C <small>[inadmissible for measuring system C]</small>									
B0204	-20 ... +40°C									
C0004	0 ... +40°C									
C0006	0 ... +60°C									
C0012	0 ... +120°C									
C0016	0 ... +160°C <small>[inadmissible for measuring system C]</small>									
C0020	0 ... +200°C <small>[inadmissible for measuring system C]</small>									
C0025	0 ... +250°C <small>[inadmissible for measuring system C]</small>									
C0032	0 ... +320°C <small>[inadmissible for measuring system C; inadmissible for open measuring system 2]</small>									
C0040	0 ... +400°C <small>[inadmissible for measuring system C; inadmissible for open measuring system 2]</small>									
C0050	0 ... +500°C <small>[total stem length L = min. 100 mm; inadmissible for measuring system C; inadmissible for open measuring system 2]</small>									
C0060	0 ... +600°C process wetted part max. 550°C									
Others temperature ranges on request										





**Bimetal Thermometer Model TS**

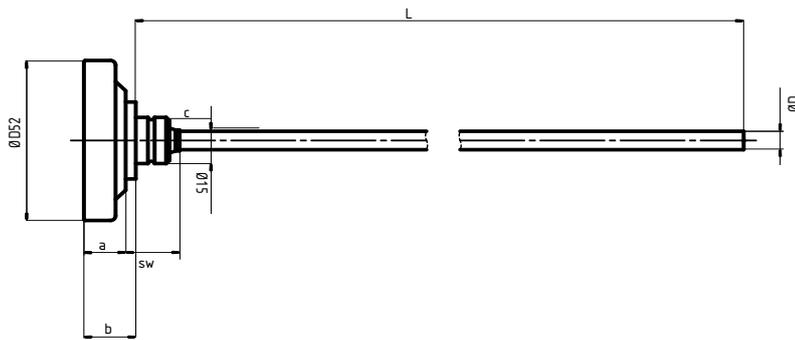
**DIMENSIONS IN MM**

For reference only, ask us for specific dimensional drawings

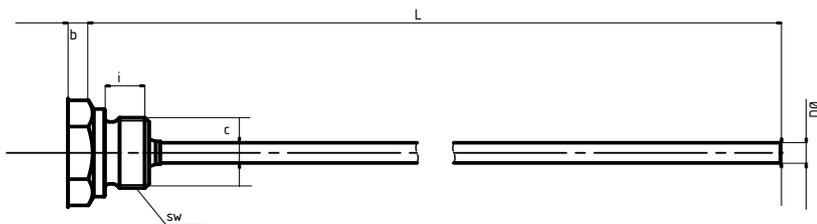
**HVAC BIMETAL TS**

For mounting with unthreaded shoulder (A) and with fixed threaded connection (S)

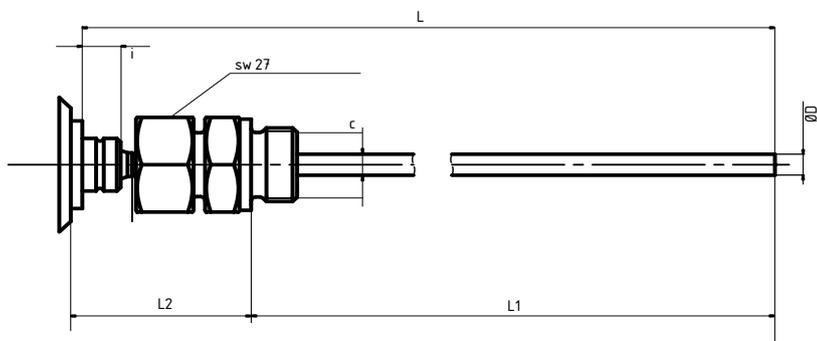
ØD	52	65	77	100	
a	9	10	12	12	
b	12	13	14	14	
c	G1/4	G3/8	G1/2	G3/4	1/4 NPT
i	10	10	12	12	17
sw	17	22	27	32	17



**TS=H=A**  
With unthreaded Shoulder



**TS=H=S**  
With fixed threaded connection



**TS=H**  
with swivelling & sliding threaded connection



**Bimetal Thermometer Model TS**

**DIMENSIONS IN MM**

For reference only, ask us for specific dimensional drawings

For mounting with unthreaded shoulder (A) and with fixed threaded connections

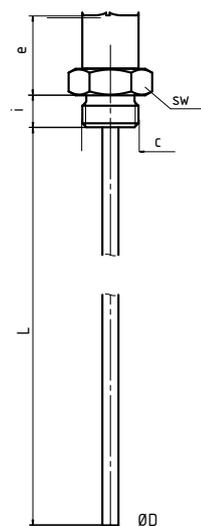
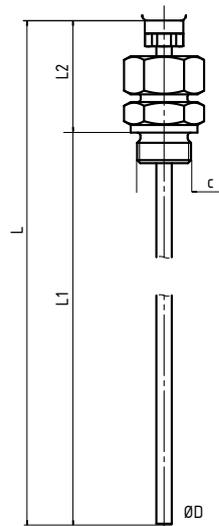
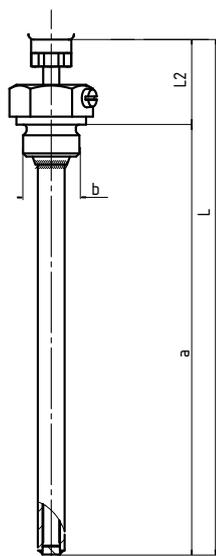
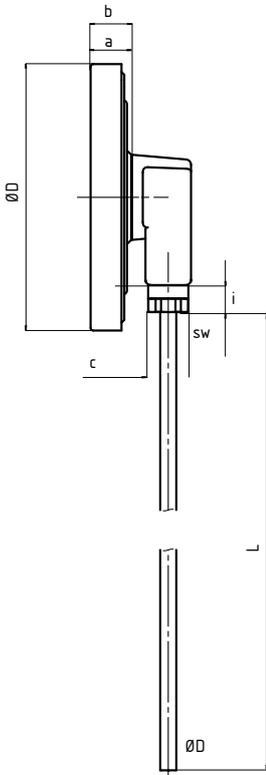
ØD	52	65	77	100	
a	9	10	12	12	
b	12	13	14	14	
e	15	15	15	29	
c	G1/4	G3/8	G1/2	G3/4	1/4 NPT
i	10	10	12	12	17
sw	17	22	27	32	17

**TS=V**  
with unthreaded  
shoulder

**TS=V=A**  
with thermowell

**TS=V**  
with thermowell

**TS=V**  
with swivelling sliding  
Threaded connection

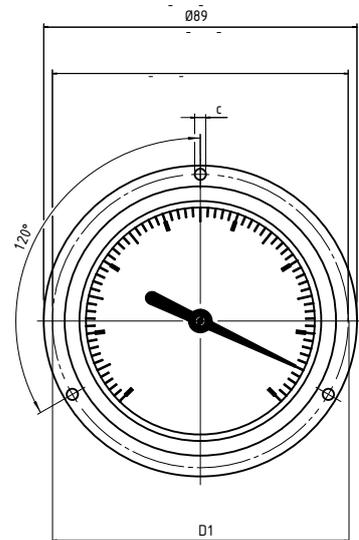
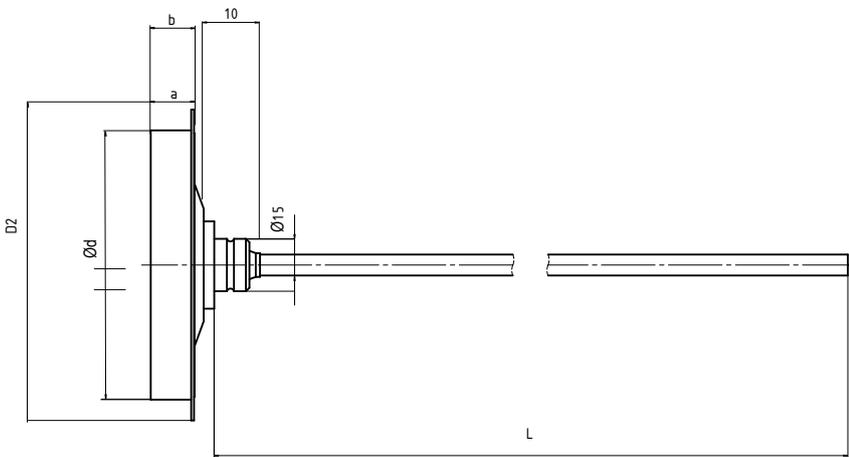


**Bimetal Thermometer Model TS**

**For mounting with back mounting flange**

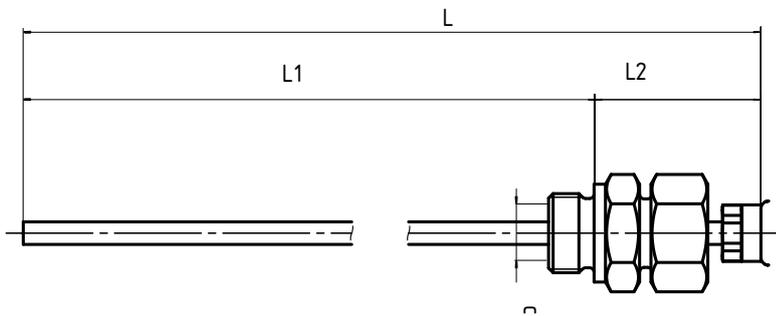
ØD	66	77	100
D1	74	84	111
D2	80	89	120
a	11	12	13
b	14	15	15
ØC	3.2	3.2	4.3

**TS=H=F  
with mounting flange**



## Bimetal Thermometer Model TS

Thermometer vertical	Fitting and connections supplied as accessories		
	Minimum Length L2 in mm		
Typ	+DAE	+AMX	+AMU
TS=V=052=A	15	37	30
TS=V=065=A	15	37	30
TS=V080=A	25	37	30
TS=V100=A	32	44	37



The fixing system described on sheet TA1 and supplied as accessories (e.g the connection AMX) require that in all cases the length L1, and also the lengths L2 and L.

For vertical ( bottom-connected) thermometers with unthreaded shoulder TSVA+.. The length L1 is in fact the useful length for temperature measurement. For vertical thermometers TSV A+ according to the head diameter and to the fixing system. The length L2 corresponds in each case to a minimum length which allows the connection to be screwed up without the spanner fouling the head. See table opposite for dimensions to this effect.

When length L2 exceeds 100 mm, we recommend 8 or 9 mm diameter stems (wall thickness 1.4 mm or 1.9 mm respectively) to eliminate any risks of occidental bending.

