

## bi-metal thermometers all stainless steel construction DS 4", 5", 6" (100-125-150 mm)



ATEX 2014/34/UE



These instruments are designed for use in chemical, petrolchemical processing industries. They are built to resist the most severe operating conditions created by the ambient environment and the process medium. An TIG welded case/bulb strengthens the whole construction. A leak tight fit is ensured if the instrument is filled with a dampening fluid to prevent damage due to vibration.

### 6.TB8 - Standard Model

**Designation:** EN 13190.

**Indication ranges:** -80...+1000 °F (-50...+600 °C).

**Measuring ranges:** -60...+900 °F (-40...+500 °C); -60...+840 °F (-40...+450 °C) continuous; +840...900 °F (+450...500 °C) intermittent only.

**Accuracy class:** 1 as per EN 13190, measuring range.

**Overtemperature limit:** 30% of full scale range for temperature ≤ 750 °F (400 °C); max 900 °F (500 °C).

**Special overtemperature (option F02):** 100% of full scale range for temperature ≤ 300 °F (150 °C); 50% of full scale range for temperature from +300...550 °F (+150...300 °C).

**Ambient temperature:** -22...+149 °F (-40...+65 °C).

**Max working pressure:** 200 psi - 15 bar (without thermowell).

**Protection degree:** IP 55 as per EN 60529/IEC 529.

**Process connection:** AISI 316 st.st.

**Bulb:** ø 0.24" (cod. 6), ø 0.25" (cod. 7), ø 0.31" (cod. 8), ø 0.38" (cod. 9) (ø 6-6,4-8-9,6 mm) AISI 316 st. st.

**Immersion length:**

from 5.91" to 27.55" (from 150 to 700 mm)  
for bulbs ø 0.24-0.25" (6-6,4 mm);

from 3.94" to 35.43" (from 100 to 900 mm)  
for bulbs ø 0.31-0.38" (8-9,6 mm) and ranges ≤ 600 °F (300 °C);

from 5.91" to 35.43" (from 150 to 900 mm)  
for bulbs ø 0.31-0.38" (8-9,6 mm) and ranges > 600 °F (300 °C)

(other lengths available upon request)

**Measuring element:** bi-metal spiral shaped.

**Case:** stainless steel.

**Ring:** stainless steel bayonet lock.

**Window:** tempered glass.

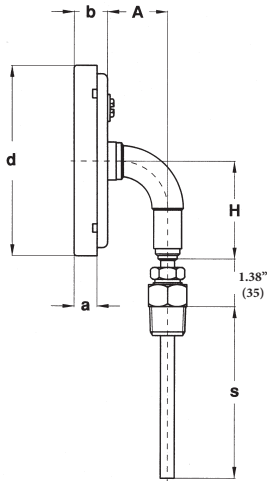
**Dial:** aluminium white with black markings.

**Pointer:** not adjustable, aluminium, black.

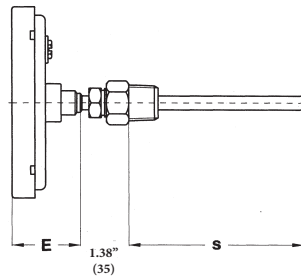
**Zero-Adjustment:** external zero-adjustment screw.

### OPTIONS

DESCRIPTION	DS 4" (100mm)	DS 5" (125mm)	DS 6" (150mm)
<b>2G3</b> - ATEX version II 2GD c	See the ATEX temperature gauges data-sheet for technical details		
<b>2D3</b> - ATEX version II 2GD ck			
<b>3D3</b> - ATEX version II 3GD c			
<b>C40</b> - Case and ring AISI 316 st.st.	◆	◆	◆
<b>F02</b> - Special overtemperature	◆	◆	◆
<b>R10</b> - Glycerine filling, max +320 °F (+160 °C) - IP67	◆	◆	◆
<b>R11</b> - Silicone filling, max +482 °F (+250 °C) - IP67	◆	◆	◆
<b>T01</b> - Tropicalization	◆	◆	◆
<b>T32</b> - Safety double stratified glass	◆	◆	◆

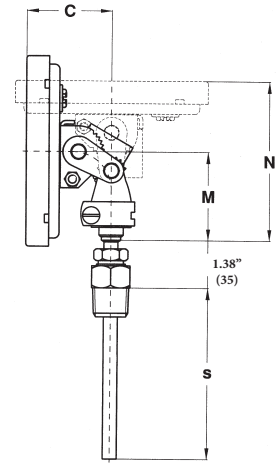


1 - LOWER CONNECTION



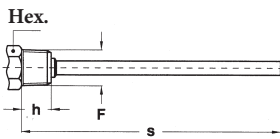
4 - BACK CONNECTION

dimensions : inches (mm)



9 - EVERY-ANGLE CONNECTION

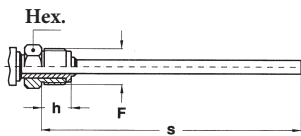
DS	A	a	b	C	d	E	H	M	N
<b>E</b> 4" (100)	1.36" (34,5)	0.51" (13)	0.75" (19)	1.93" (49)	4.35" (110,6)	1.54" (39)	2.24" (57)	2.03" (51,5)	3.64" (92,5)
<b>F</b> 5" (125)	1.36" (34,5)	0.57" (14,5)	0.77" (19,5)	1.95" (49,5)	5.12" (130)	1.56" (39,5)	2.56" (65)	2.03" (51,5)	3.66" (93)
<b>G</b> 6" (150)	1.36" (34,5)	0.59" (15)	0.79" (20)	1.97" (50)	6.34" (161)	1.57" (40)	3.23" (82)	2.03" (51,5)	3.68" (93,5)



3 - Fixed male

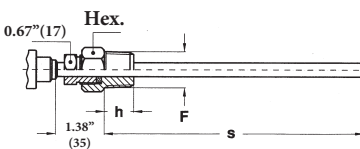
F	Hex.	h
<b>41M</b> - G 1/2 A	0.87" (22) *	0.67" (17)
<b>43M</b> - 1/2-14 NPT	0.87" (22) *	0.55" (14)

\* ø 24 for every-angle mounting



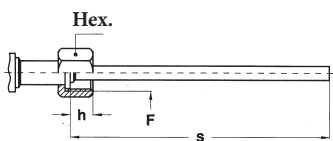
5 - Male swivel nut

F	Hex.	h
<b>41M</b> - G 1/2 A	0.87" (22)	0.55" (14)
<b>51M</b> - G 3/4 A	0.87" (22)	0.55" (14)



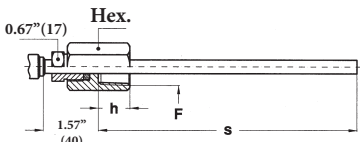
9 - Sliding male and swivel nut

F	Hex.	h
<b>41M</b> - G 1/2 A	0.87" (22)	0.55" (14)
<b>43M</b> - 1/2-14 NPT	0.87" (22)	0.67" (17)
<b>51M</b> - G 3/4 A	1.06" (27)	0.63" (16)
<b>53M</b> - 3/4-14 NPT	1.06" (27)	0.67" (17)



8 - Female swivel nut

F	Hex.	h
<b>41F</b> - G 1/2 A	0.94" (24)	0.63" (16)
<b>51F</b> - G 3/4 A	1.18" (30)	0.63" (16)



7 - Sliding female and swivel nut

F	Hex.	h
<b>43F</b> - 1/2-14 NPT	0.94" (24)	0.71" (18)
<b>53F</b> - 3/4-14 NPT	1.26" (32)	0.71" (18)

"HOW TO ORDER" SEQUENCE

Section / Model / Mounting / Connection type / Diameter / Range / Process connection / Bulb type and length / Options

<b>6</b>	<b>TB8</b>	<b>1</b>	<b>3</b>	<b>E</b>	<b>41M</b>	<b>6</b>	<b>2G3...T32</b>
		<b>4</b>	<b>5</b>	<b>F</b>	<b>43M</b>	<b>7</b>	
		<b>9</b>	<b>7</b>	<b>G</b>	<b>51M</b>	<b>8</b>	
			<b>8</b>		<b>53M</b>	<b>9</b>	
			<b>9</b>		<b>43F</b>		
					<b>53F</b>		