

bi-metal thermometers

all stainless steel construction

DS 4", 5", 6" (100-125-150 mm)

TB8



These instruments are designed for use in food, beverage, pharmaceutical, 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: -13...+149 °F (-25...+65 °C).

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

Protection degree: IP 55 as per 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) |
|--|---|---------------|---------------|
| 2E3 - ATEX version II 2GD c | <i>See the ATEX temperature gauges data-sheet for technical details</i> | | |
| 2K3 - ATEX version II 2GD ck | | | |
| 3D3 - ATEX version II 3GD c | | | |
| C40 - Case and ring AISI 316 st.st. | ♦ | ♦ | ♦ |
| F02 - Special overtemperature | ♦ | ♦ | ♦ |
| R10 - Glycerine filling, max +320 °F (+160 °C) | ♦ | ♦ | ♦ |
| R11 - Silicone filling, max +482 °F (+250 °C) | ♦ | ♦ | ♦ |
| R12 - Fluorolube filling, max +392 °F (+200 °C) | ♦ | ♦ | ♦ |
| T01 - Tropicalization | ♦ | ♦ | ♦ |
| T32 - Safety double stratified glass | ♦ | ♦ | ♦ |



For use in potentially explosive atmospheres, instruments must be designed in conformity to ATEX 94/9/CE. This version is shown on separate data sheet available on request.

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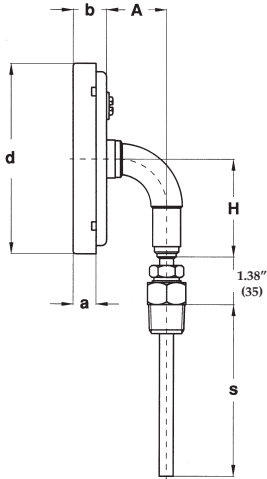
DS 4", 5", 6" (100-125-150 mm)

TB8

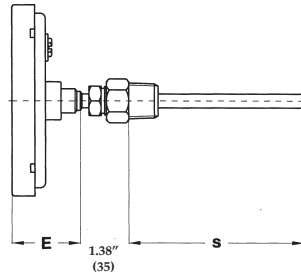
RBI-1 - 10/08

www.nuovafima.com

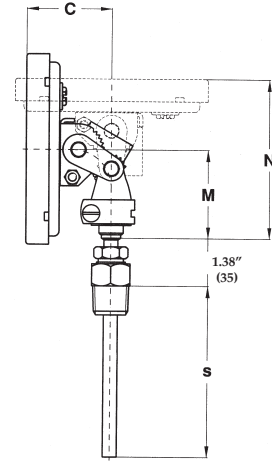
IN ORDER TO IMPROVE THEIR PRODUCTION, MESSRS. NUOVA FIMA RESERVE THE RIGHT TO THEMSELVES TO MAKE ALL THE MODIFICATIONS THAT THEY DEEM INDISPENSABLE AT ANY TIME. UPDATED DATA SHEET ARE AVAILABLE ON SITE: www.nuovafima.com



1 - LOWER CONNECTION



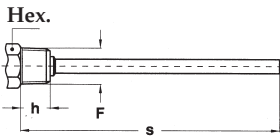
4 - BACK CONNECTION



9 - EVERY-ANGLE CONNECTION

| DS | A | a | b | C | d | E | H | M | N |
|-------------------|--------------|--------------|--------------|--------------|---------------|--------------|------------|--------------|--------------|
| E 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) |
| F 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) |
| G 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) |

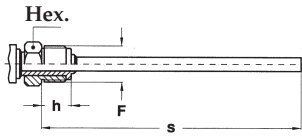
dimensions : inches (mm)



3 - Fixed male

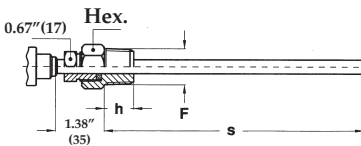
| F | Hex. | h |
|-------------------------|--------------|------------|
| 41M - G 1/2 A | 0.87" (22) * | 0.67" (17) |
| 43M - 1/2-14 NPT | 0.87" (22) * | 0.55" (14) |

* ø 24 for every-angle mounting



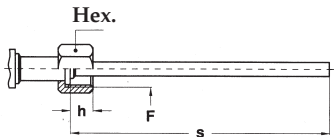
5 - Male swivel nut

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



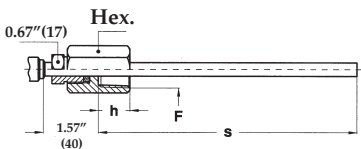
9 - Sliding male and swivel nut

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



8 - Female swivel nut

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



7 - Sliding female and swivel nut

| F | Hex. | h |
|-------------------------|------------|------------|
| 43F - 1/2-14 NPT | 0.94" (24) | 0.71" (18) |
| 53F - 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

| | | | | | | | | |
|----------|------------|----------|----------|----------|--|------------|----------|------------------|
| 6 | TB8 | 1 | 3 | E | | 41M | 6 | 2E3...T32 |
| | | 4 | 5 | F | | 43M | 7 | |
| | | 9 | 7 | G | | 51M | 8 | |
| | | | 8 | | | 53M | 9 | |
| | | | 9 | | | 43F | | |
| | | | | | | 53F | | |