

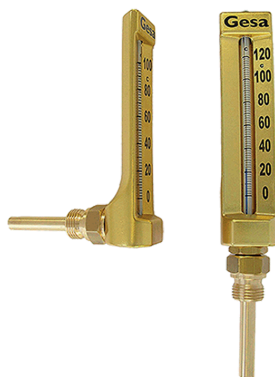


## V-shaped thermometer

Liquid expansion thermometers for temperatures from -60°C to 600°C.

These instruments are very tough, easy to install and reliable. They resist extreme working conditions: vibrations, humidity, outdoors conditions, aggressive media like sea water or ammonia.

Useful to control fluid temperature in pipes or tanks from ship engines, refrigeration systems, boilers, HVAC systems, etc.



### STANDARD PARAMETERS

Design: **DIN 16181/16182/16185/16186/16189/16190/16195**

Structure: The glass insert is secured by an aluminum case where the temperature range is printed. The metallic stem is fixed into the system by male or female thread or Bolt.

Case dimension (H): **110, 150 or 200mm**

Mounting: See attached diagrams **A , B or C**

Connection system: **Male or female thread or bolt**

Threads: **Standard BSP, metrics or NPT**

Stem length (L), including thread: **25-500mm**

Stem diameter (Ø) : 10mm (optional 8mm)

Range: Aluminium case: **-60...0...600°C / Polyamide case: -60...0...200°C**

Scale: **°C printed on the right side of the case or double scale °C/°F**

### MATERIALS

Case: **Anodized aluminium gold or silver coloured / polyamide**

Insert: Prismatic glass with white strip for T<450°C and Round glass with yellow back for T>450°C

Thread and Stem: **Brass, Steel, Stainless steel AISI 304, AISI 316 or 316L**

Thermometric liquid: **Blue or red alcohol for T<200°C / Mercury for T>200°C**

Mounting	DIMENSIONS(mm)							WEIGHT (g)	DIN
	H	A	B	C	D1	D2	Ø		
Straight	110	36	60	17	20	-	10	230	DIN 16181
	150	36	90	17.5	20	-	10	285	DIN 16185
	200	36	130	17.5	20	-	10	320	DIN 16189
Angle 90°	110	36	60	17	-	48	10	230	DIN 16182
	150	36	90	17	-	48	10	275	DIN 16186
	200	36	130	17	-	48	10	310	DIN 16190
Angle 135°	110	36	60	17	20	-	10	230	-
	150	36	90	17.5	20	-	10	275	-
	200	36	130	17.5	20	-	10	310	DIN 16191

### How to order

#### 1. Case size in mm (H)

110  
150  
200

#### 2. Case material

Aluminium  
Polyamide

#### 3. Case Color

Gold  
Silver

#### 4. Mounting

**A B C**

#### 5. Temperature Range (°C)

-10+50 0+120 0+400  
-30+50 0+160 0+500  
0+60 0+200 0+600  
0+100 0+300

#### 6. Temperature scale

Single °C  
Double °C / °F

### Temperature range according to DIN 16195

Tmp. in °C	H	Subdivision °C/line	Maximum error	Liquid
-60+40	110	2	2	Alcohol
	150	1		
	200	1		
-30+50	110	1	2	Alcohol or Mercury
	150			
	200			
0+60	110	1	2	Alcohol or Mercury
	150			
	200			
0+100	110	2	2	Mercury
	150			
	200			
0+120	110	2	2	Mercury
	150			
	200			
0+160	110	2	2	Mercury
	150			
	200			
0+200	110	2	2	Mercury
	150			
	200			
0+300	110	2	2	Mercury
	150			
	200			
0+400	110	5	5	Mercury
	150			
	200			
0+500	110	10	5	Mercury
	150			
	200			
0+600	110	10	5	Mercury
	150			
	200			

#### 7. Thermometric liquid

Blue alcohol  
Red alcohol  
Mercury

#### 8. Stem length in mm (L), including thread

25 40 55 70 85 110 135 200 270 400  
30 45 60 75 90 120 140 220 300 450  
35 50 63 80 100 130 160 250 350 500

#### 9. Stem diameter in mm (Ø)

Ø10  
Ø8

#### 10. Stem material

Brass  
Chromed carbon steel  
Galvanized carbon steel  
Stainless st. AISI 304  
Stainless st. AISI 316

#### 11. Threads

½" BSP male  
½" BSPT male  
½" NPT male  
¾" BSP male

¾" BSP male  
¾" NPT male  
Bolt Ø16 mm  
Bolt Ø18 mm

M18x150 male  
M20x150 male  
M22x150 male  
M27x200 male

Female crazy nut  
Without threaded connection  
More threads on demand

#### 12. Logo

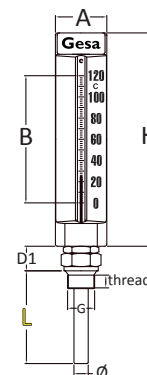
GESA  
Without Logo

#### 13. Calibration certificate traceable to ENAC

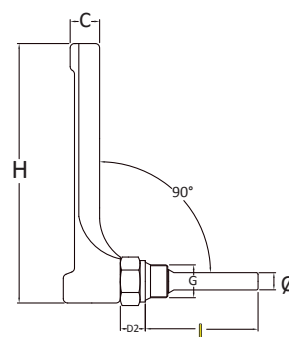
3 points  
4 points  
5 points

6 points  
7 points  
Without certificate

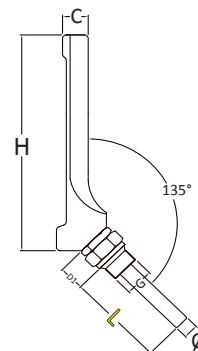
### A Straight



### B Angle 90°



### C Angle 135°



Kod zamówieniowy

1	2	3	4	5	6	7	8	9	10	11	12	13
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