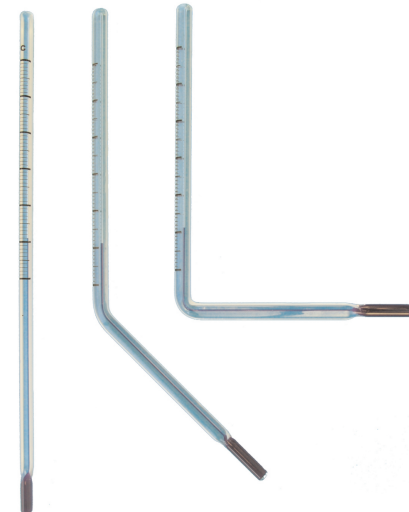


APPLICATION

Universal applications in engines, industrial and naval systems, piping and heating installations, and so on. They resist extreme hard conditions: vibrations, humidity, temperature...



How to order: C 02 01 + chosen options

1. DESCRIPTION

VGlass rods for models described on data sheets C 01 01 y C 01 02. For temperatures from -60°C to 650°C. These instruments are very tough, easy to install and reliable

2. CONSTRUCTION / DESIGN

2.1. Design	x	DIN 16181 for model A-110 straight DIN 16182 for model A-110 angle 90 DIN 16185 for model A-150 straight DIN 16186 for model A-150 angle 90 DIN 16189 for model A-200 straight DIN 16190 for model A-200 angle 90 Model A-110 angle 135 Model A-150 angle 135 DIN 16191 for model A-200 angle 135
2.2. Structure		Glass rod is fixed and protected with an aluminium case. Numerals of the scale of temperature are printed on the right side of the case. The metallic stem is fixed to the pipe by means of threaded connections male, female or by connection bolts
2.3. Execution	X	Straight, Angle 90° or Angle 135°

3. MATERIALS AND DIMENSIONS

3.1. Materials		Prismatic glass white strip backed for temperatures up to 450°C. Round shaped glass with yellow strip for temperatures up to 500°C or 600°C
3.2. Thermometric liquids	x	Blue or red alcohol for temperatures up to 200°C. Mercury for higher temperatures
3.3. Length of scale		60mm for models A110 90mm for models A150 130mm for models A200 and temperatures up to 400°C 115mm for models A200 and temperatures over 500°C and 600°C
3.4. Stem length	x	40, 50, 63, 100, 160 or 200mm

4. TEMPERATURE

4.1. Range (°C)	x	-10+50 -30+50 0+60 0+100 0+120 0+160 0+200 0+300 0+400 0+500 0+600
4.2. Scales	x	In °C printed on the right side of the case. Double scale in °C and °F.
4.3. Subdivision		According to DIN 16195 (see table 1)
4.4. Precision / Class		According to DIN 16195 (see table 1)

5. OPTIONS

5.1. Liquids		It is possible to choose mercury even for low temperatures (From -30°C to 200°C)
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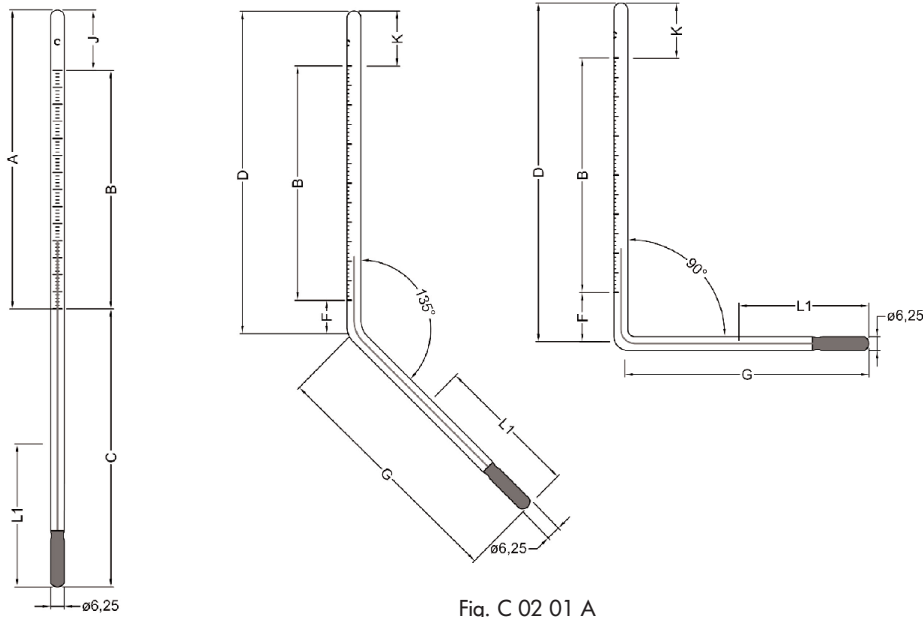


Fig. C 02 01 A

STANDARD DIMENSIONS (mm)									
Thermometer's model	Execution	A	B	J	D	F	K	Ø	Weight (g) (stem 63mm)
A-110	Straight	76	60	16	-	-	-	6,25	11
	Angle 90°	-	60	-	86	11	15		11
	Angle 135°	-	60	-	86	11	15		11
A-150	Straight	113	90	23	-	-	-		13
	Angle 90°	-	90	-	124	16	18		13
	Angle 135°	-	90	-	124	16	18		13
A-200	Straight	153	130 (115 for temp > 500°C)	23	-	-	-		18
	Angle 90°	-	130 (115 for temp > 500°C)	-	174	20	24		18
	Angle 135°	-	130 (115 for temp > 500°C)	-	174	20	24		18

TABLE 1. Scales and precision according to DIN 16195					
Model	Temperature °C	°C/line	Maximum error °C	Fluid	
A-110	-60+40	2	2	Alcohol	
A-150		1			
A-200		1			
A-110	-30+50	1	2	Alcohol or Mercury	
A-150			2		
A-200			1		
A-110	0+60	1	2		
A-150			2		
A-200			1		
A-110	0+100	2	2		
A-150			2		
A-200			1		
A-110	0+160	2	2	Mercury	
A-150					0+200
A-200					0+200
A-150 A-200	0+300	2	2		
	0+400	5	5		
	0+500	10	5		
	0+600	10	5		

Stem length (mm)	A-110		A-150		A-200		
	L1	C	G	C	G	C	G
40		104	92	110	92	120	92
63		104	92	110	92	120	92
100		141	129	147	129	157	129
160		201	189	207	189	217	189
200		241	229	247	229	257	229

TABLE 2. Limits of usage			
		Upper usage limit °C	Lower usage limit °C
MERCURY	Hg	-38	+800
ETHANOL	C ₂ H ₆ O	-110	+110
TOLUENE	C ₇ H ₈	-115	+135
ETHYL BENZOATE	C ₁₂ H ₁₆ O ₂	-40	+220