

## Fixed male thread // Nominal size 200, 150, 110 // Polyamid case



### Your advantages

#### Series

471 / 491 / 474 / 472 / 492 / 475 B

- Accuracy according to DIN 16195
- No aging - no moving parts and no mechanical wear
- Lifetime warranty\*
- Series production for large volume use
- Completely without electrical auxiliary energy

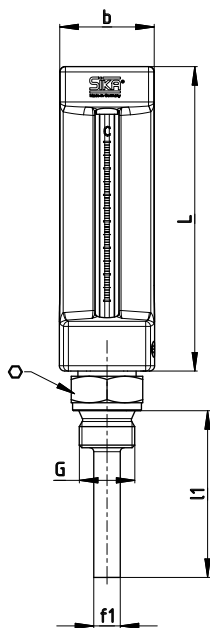
### Technical data

Type	471 B	472 B	491 B	492 B	474 B	475 B
Standard	DIN 16181 to 16190					
Version	Straight	Angle 90°	Straight	Angle 90°	Straight	Angle 90°
Dimensions Housing	200 x 36 mm		150 x 36 mm		110 x 36 mm	
Measuring range according to DIN	Between -30...200 °C					
Error limits according to DIN 16195	-30...100 °C = 2 °C 0...120 °C = 2 °C 0...200 °C = 4 °C		-30...120 °C = 2 °C 0...160 °C = 4 °C		2 °C	
Medium / Application	Liquid and gaseous media					
Immersion tube length	Between 63...250 mm					
Immersion tube diameter	Ø 10 mm					
Process connection	Fixed male thread G½					
Pressure rating** → Immersion tube brass, brazed → Immersion tube steel or stainless steel, welded	PN 16 PN 35					
Medium temperature	See selected measurement range					
Ambient temperature	-20...160 °C					
Storage temperature	-40...100 °C					

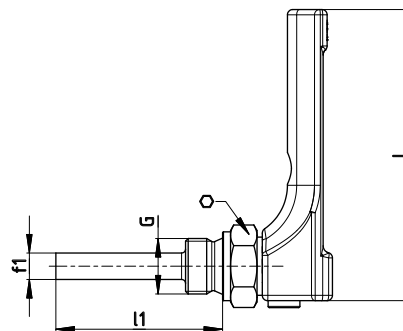
\* Except glass breakage and improper installation.

\*\* Non-binding guideline - For higher pressure loads, additional protection tubes have to be used.

**Type 471 B / 491 B / 474 B**



**Type 472 B / 492 B / 475 B**



Dimensions [mm]	L	f <sub>1</sub>	b	l <sub>1</sub>	G / ∅ Width across flats
<b>471 B / 472 B</b>	200	∅ 10	36	63	G <sup>1</sup> / <sub>2</sub> / SW27
<b>291 B / 292 B</b>	150		36	100	
<b>174 B / 175 B</b>	110		36	250	

Material	
<b>Housing</b>	Moulded polyamide casting, black
<b>Thermometer capillary</b>	Prismatic capillary tube of solid glass, bar-shaped, diameter approx. ∅ 6 mm, scale permanently burnt in
<b>Thermometer filling</b> → Blue	Petroleum
Material in contact with media	
<b>Process connection</b>	see immersion tube material
<b>Immersion tube material</b> → Standard → Optional	Brass, brazed Stainless steel, welded

Order code								
<b>Version</b>								
<b>Nominal size 200</b>								
Black, Straight	471							
Black, Angle 90°	472							
<b>Nominal size 150</b>								
Black, Straight	491							
Black, Angle 90°	492							
<b>Nominal size 110</b>								
Black, Straight	474							
Black, Angle 90°	475							
<b>Immersion tube type</b>								
Straight / Angle 90°	2							
<b>Display ranges</b>								
-30...50 °C		35						
-10...50 °C		04						
0...60 °C		06						
0...100 °C		10						
0...120 °C		12						
0...160 °C		16						
0...200 °C		20						
<b>Scale</b>								
Celsius °C			1					
<b>Thermometer filling</b>								
Blue				1				
<b>Immersion tube length (l<sub>1</sub>)</b>								
63 mm						063		
100 mm						100		
160 mm						160		
250 mm						250		
<b>Process connection</b>								
G½ / SW27 (other threads on request)							2	
<b>Immersion tube material</b>								
Brass								1
Stainless steel 1.4571								3
<b>Example order number</b>	<b>471</b>	<b>2</b>	<b>35</b>	<b>1</b>	<b>1</b>	<b>063</b>	<b>2</b>	<b>1</b>

