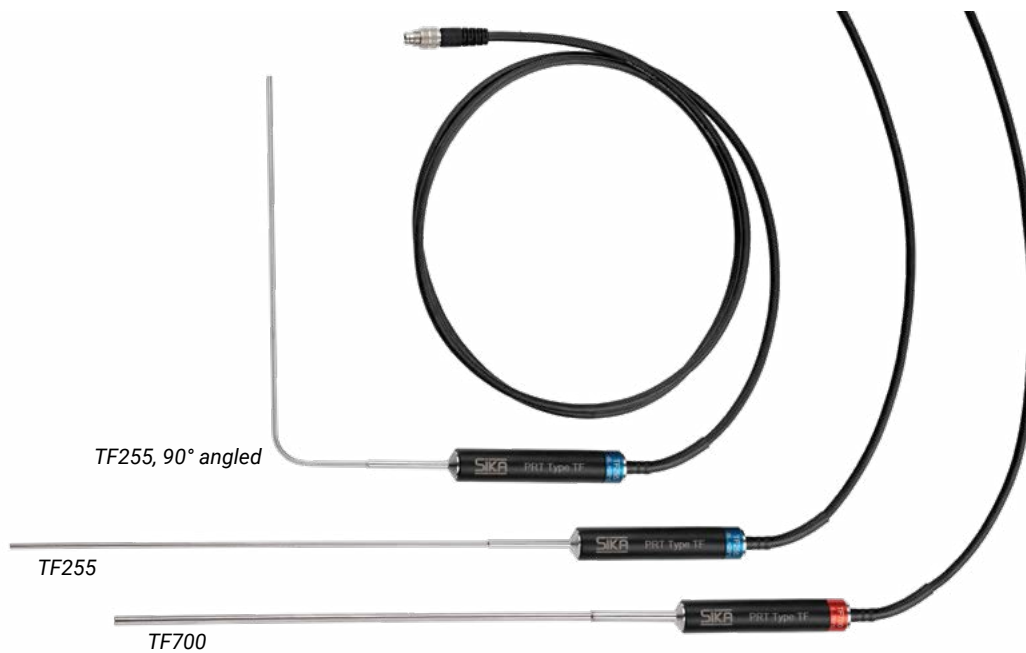


Reference temperature sensors

for SIKA temperature calibrators or as stand-alone precision sensor



Highlights

- Artificially aged by tempering to reduce long-term drift
- Best performance among SIKA temperature sensors
- Handmade, with experience from over 120 years of temperature measurement

Technical data

Type	TF255, straight design	TF255, angled design	TF700
Immersion tube dimensions [mm]	Ø 3x300, straight	Ø 3x300, 90° angled	Ø 4.5x300, straight
Immersion tube dimensions [inch]	Ø 0.118x11.811, straight	Ø 0.118x11.811, 90° angled	Ø 0.177x11.811, straight
Technical data defined for temperature range	-55...255 °C -67...491 °F	-55...255 °C -67...491 °F	5...700 °C 41...1292 °F
Measuring element	Pt100, 4-wire	Pt100, 4-wire	Pt100, 4-wire
Measuring resistor	Flat measuring resistor	Flat measuring resistor	Coiled
Sensitive length	2.3 mm 0.091"	2.3 mm 0.091"	25 mm 0.984"
Position of the sensitive length [mm]	Approx. 1.5 from sensor tip	Approx. 1.5 from sensor tip	Approx. 1.5 from sensor tip
Position of the sensitive length [inch]	Approx. 0.591 from sensor tip	Approx. 0.591 from sensor tip	Approx. 0.591 from sensor tip
Long-term stability (100h)	±0.015 °C ±0.027 °F	±0.015 °C ±0.027 °F	±0.080 °C ±0.144 °F
Hysteresis	±0.010 °C ±0.018 °F	±0.010 °C ±0.018 °F	±0.030 °C ±0.054 °F
t₉₀ [sec]	5	5	31
Self-heating (1mA)	0.010 °C 0.018 °F	0.010 °C 0.018 °F	0.015 °C 0.027 °F
Repeatability at 0 °C / 23 °F	±0.005 °C ±0.009 °F	±0.005 °C ±0.009 °F	±0.005 °C ±0.009 °F
R₀	100 Ohm	100 Ohm	>100 Ohm (increased R ₀ for optimal measurements above room temperature)
Weight	140 g	140 g	155 g
Material immersion tube	Stainless steel	Stainless steel	Inconel
Connector plug	Sensor plug M9 4-pin	Sensor plug M9 4-pin	Sensor plug M9 4-pin

Approvals

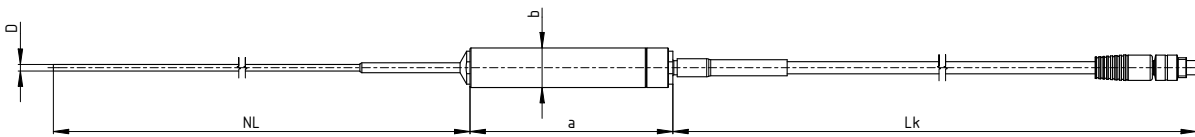


Compatibility

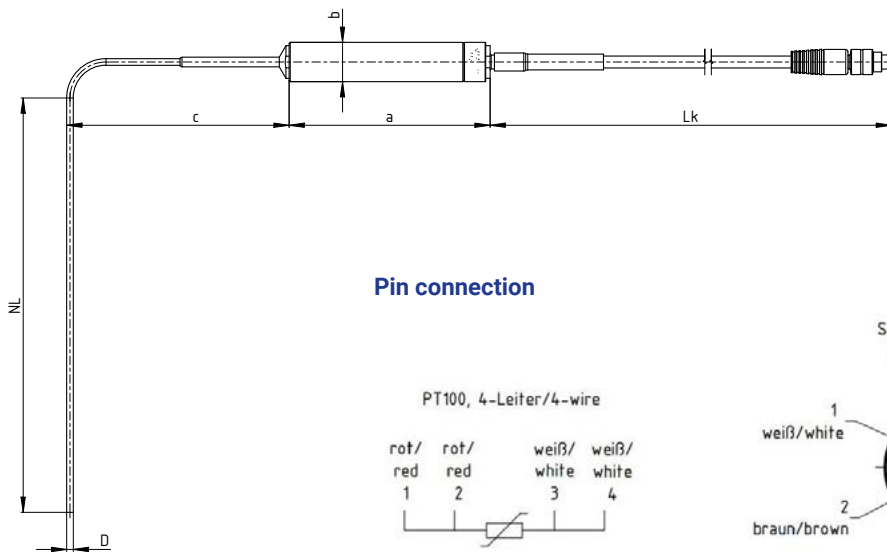
Compatibility			
Type	TF255, straight design	TF255, angled design	TF700
Compatible with SIKA temperature calibrators	TP 37165E.2 TP 37200E.2 TP 3M165E.2 TP 3M255E.2	TP 37165E.2 TP 37200E.2 TP 3M165E.2 TP 3M255E.2	TP 37700E.2 TP 37450E.2

Technical drawings // Dimensions

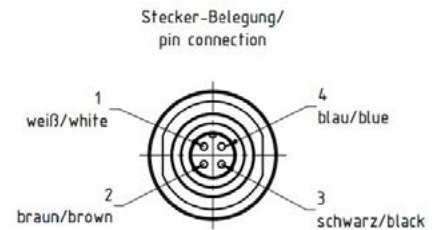
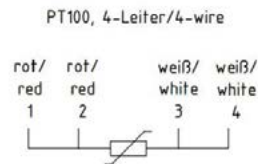
Straight design



Angled design



Pin connection



Dimensions [mm]						
Type	D	NL	b	c	a	Lk
TF255, straight design	3	300	18	-	92	1500
TF255, angled design	3	190	18	102	92	1500
TF700	4.5	300	18	-	92	1500

Dimensions [inch]						
Type	D	NL	b	c	a	Lk
TF255, straight design	0.118	11.811	0.709	-	3.622	59.055
TF255, angled design	0.118	7.480	0.709	4.016	3.622	59.055
TF700	0.177	11.811	0.709	-	3.622	59.055

Article numbers

Order code	
Type	
External reference sensor TF 255, straight design	W033P413000GX0R2
External reference sensor TF 255, 90° angled	W033P413000GX0RI
External reference sensor TF 700, straight design	W454P413000GX0R2