

Wire and angled or lined inconel® thermocouple temperature sensor with or without fitting



Type SFC and SFCR K

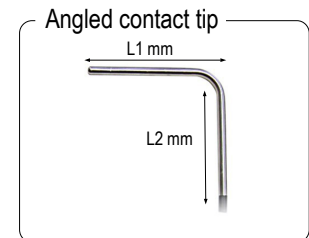
SFC K – SFC D K – SFCR K – SFCRD K

SENSOR FEATURES


- Temperature sensor mounted on conductor cables with angled contact tip with or without stainless steel compression fitting.
- Thermocouple types T, J, K and N
- Measuring range from -40 °C to +1000 °C
- Mounting with 316 L stainless steel contact tip or inconel® 600


TECHNICAL FEATURES

Working temperature (According to cable)	<p>For SFCK and SFCRK series From -40 °C to +105 °C for PB output From -40 °C to +260 °C for TB output From -40 °C to +400 °C for SVB output From -40 °C to +550 °C for SVB (Tc K) output</p> <p>For SFCKI and SFCRKI series From -40 °C to +750 °C for Tc J From -40 °C to +1000 °C for Tc K and Tc N</p>
Accuracy* for class 1	See "Tolerances" table
Mounting of the welding	Insulated hot welding in standard Add SCM to part number for a mounting at hot welding to earth.
Storage temperature	From -20 °C to +80 °C
Output	Stripped wires, male miniature connector or standard on request
Contact tip and fitting	<p>For SFCK and SFCRK series 316 L stainless steel Angled at 90° (Other on request) Waterproof crimping with heat-shrink tubing (Unless glass silk cable with single crimping on stainless steel sheath) Curve spring as option</p> <p>For SFCKI and SFCRKI series Inconel® contact tip 600 T max. 1000 °C Stainless steel compression fitting 316 L T max. 800 °C Angled at 90° (Other on request)</p>
Thread of the fitting	½' or ¼' Gas
Mounting of the fitting	<p>On L2 length (See schema): 12 or 14 corresponding to ½' G and ¼' G compression fitting</p> <p>On L1 length (See schema): 12L1 or 14L1 corresponding to ½' G et ¼' G compression fitting</p>



Recommended temperature
 According to contact tip Ø in inconel® 600

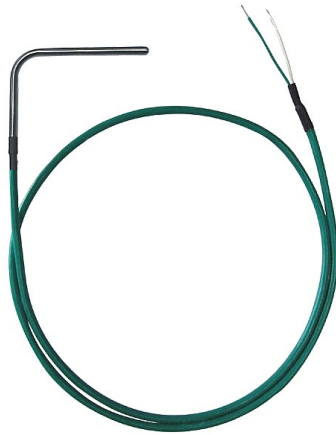
 From Ø 0.5 to 1 mm: until 300 °C
 From Ø 1.5 to 2 mm: until 750 °C
 Ø 3 mm: until 900 °C
 From Ø 4.5 to 8 mm: until 1000 °C

 T° maxi of L2: 800 °C for this specific case

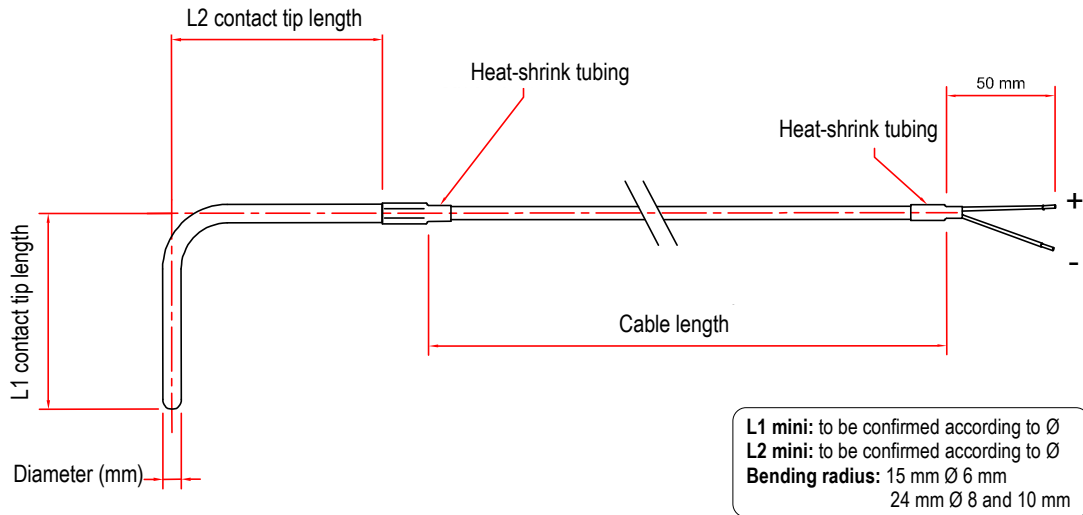
* Performed in laboratory conditions, the above accuracies mentioned in this document will be guaranteed, provided that you use the calibration compensation data or identical calibration conditions.

SFC & SFC-I

Angled wire probe or lined inconel®



DIMENSIONS



PART NUMBERS

• SFC - Stainless steel contact tip

Type	Cable length (m)	Diameter (mm)	L1 contact tip (mm)	L2 contact tip (mm)	Angle	Curve spring	Connector
T	1	4	50	50	90	R	MM Male miniature
J	2	4	100	100			FM Female miniature
K	3	4	150	150			MS Male standard
N	4	4	200	200			FS Female standard
	*	*	*	*			- Without connector

*other on request

- Insulated
SCM To earth

• SFC-I – Inconel® contact tip

Type	Cable length (m)	Diameter (mm)	L1 contact tip (mm)	L2 contact tip (mm)	Angle	Curve spring	Connector
J	1	6	50	50	90	R	MM Male miniature
K	2	6	100	100			FM Female miniature
I	3	6	150	150			MS Male standard
N	4	6	200	200			FS Female standard
	*	*	*	*			- Without connector

*other on request

- Insulated
SCM To earth

Example: SFCJ-SVB-4-4-100-100-90-MM-SCM

Model: J thermocouple sensor welded to earth with stainless steel contact tip Ø 4 mm angled at 90° and L1 and L2 lengths of 100 mm, without curve spring and mounted on shielded glass silk cable ended by a male miniature connector.

Example: SFCJI-SVB-4-6-100-100-90-MM

Model: J thermocouple sensor, insulated welding with lined inconel® contact tip of 6 mm Ø angled at 90° and L1 and L2 lengths of 100 mm, without curve spring and mounted on shielded glass silk cable ended by a male miniature connector.

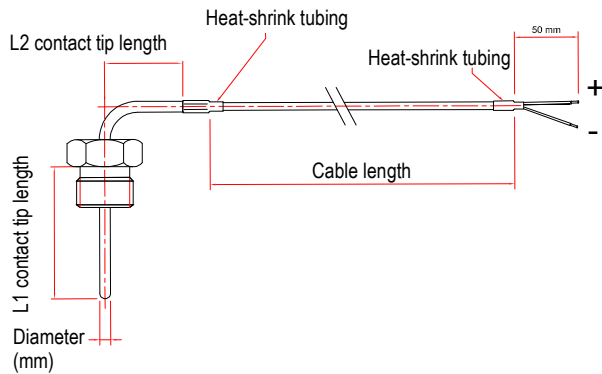
SFCR & SFCR-I

Angled wire probe or lined inconel® with fitting

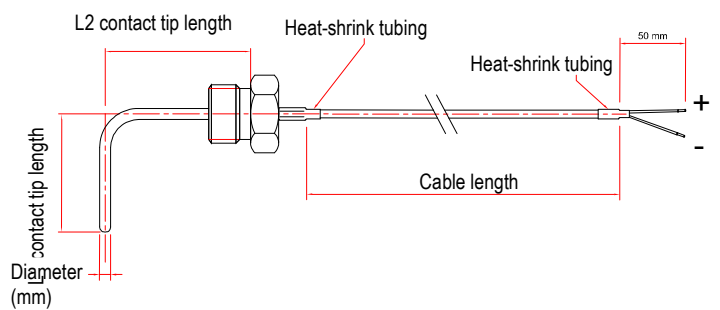


DIMENSIONS

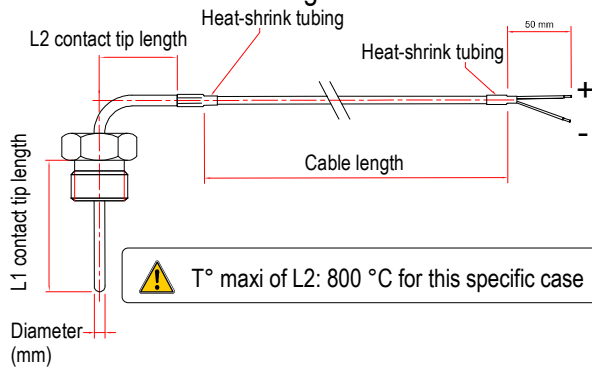
• Stainless steel with fitting on L1



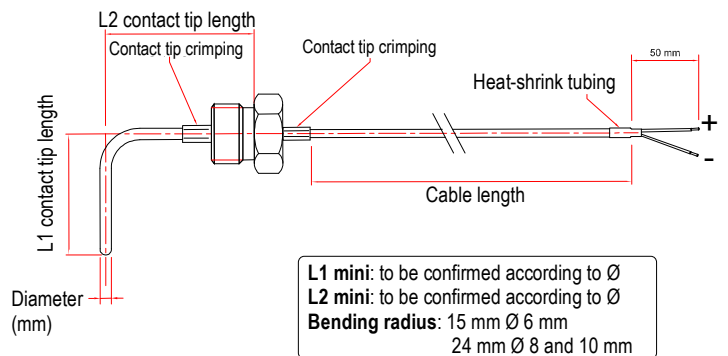
• Stainless steel with fitting on L2



• Lined inconel® with fitting on L1



• Lined inconel® with fitting on L2



PART NUMBERS

• SFCR - Stainless steel contact tip-

Type	Cable		Diameter (mm)	L1 contact tip (mm)		L2 contact tip (mm)		Fitting	Angle	Connector	
	length (m)	mm		50	100	150	200			12	14
T	1	4	50	50	50	50	12	90	MM	Male miniature	
J	2	6	100	100	100	100	14	12L1	FM	Female miniature	
K	3	8	150	150	150	150	14L1	MS	MS	Male standard	
N	4	*	200	200	200	200	*	14L1	FS	Female standard	
	SVB	*	*	*	*	*	*		-	Without connector	

SFCR [] - [] - [] - [] - [] - [] - [] - [] - [] - [] - []

*other on request

Curve spring R

- Insulated To earth

• SFCR-I - Inconel® contact tip-

Type	Cable		Diameter (mm)	L1 contact tip (mm)		L2 contact tip (mm)		Fitting	Angle	Connector	
	length (m)	mm		50	100	150	200			12	14
J	1	6	50	50	50	50	12	90	MM	Male miniature	
K	2	8	100	100	100	100	14	12L1	FM	Female miniature	
I	3	*	150	150	150	150	14L1	MS	MS	Male standard	
	SVB	*	*	*	*	*	*		FS	Female standard	
									-	Without connector	

SFCR [] - [] - [] - [] - [] - [] - [] - [] - [] - [] - []

*other on request

Curve spring R

- Insulated To earth

Example: SFCRJ-SVB-4-4-100-100-90-12-MM

Model: J thermocouple sensor, insulated hot welding with stainless steel contact tip Ø 4 mm angled at 90° and L1 and L2 lengths of 100 mm, without curve spring with ½G thread union fixed on L2. Contact tip mounted on shielded glass silk cable ended by a male miniature connector.

Example: SFCRJI-SVB-4-6-100-100-90-12-MM

Model: J thermocouple sensor, insulated hot welding with lined inconel® contact tip of 6 mm Ø angled at 90° and L1 and L2 lengths of 100 mm, without curve spring with ½G thread union fixed on L2. Contact tip mounted on shielded glass silk cable ended by a male miniature connector.

TOLERANCES* OF THE PROBE

As per IEC 584-3 norm

TC	Measuring range Class 1	TOLERANCE
T	From -40 °C to +350 °C	From -40 °C to +125 °C ± 0.5 °C From 125 °C to +350 °C $\pm 0.004 \times T^{\circ}$ abs
J	From -40 °C to +750 °C	From -40 °C to +375 °C ± 1.5 °C From 375 °C to 750 °C $\pm 0.004 \times T^{\circ}$ abs
K	From -40 °C to +1000 °C	From -40 °C to +375 °C ± 1.5 °C From 375 °C to 1000 °C $\pm 0.004 \times T^{\circ}$ abs
N	From -40 °C to +1000 °C	From -40 °C to +375 °C ± 1.5 °C From 375 °C to 1000 °C $\pm 0.004 \times T^{\circ}$ abs

* Performed in laboratory conditions, the above accuracies mentioned in this document will be guaranteed, provided that you use the calibration compensation data or identical calibration conditions.

MOST COMMON THERMOCOUPLE TYPES

THERMOCOUPLE TYPES	+ CONDUCTOR	- CONDUCTOR	COLOR OF COMPENSATING CABLE
K	Nickel-Chrome 10%	Nickel-Aluminium 5% -Silicium	Ext. colour + = GREEN, - = WHITE
T	Copper	Copper-Nickel	Ext. colour + = BROWN, - = WHITE
J	Iron	Copper-Nickel	Ext. colour + = BLACK, - = WHITE
N	Nickel 84,4% Chromium 14,2% Silicium 1,4%	Nickel 95,6% Silicium 4,4%	Ext. colour + = PINK, - = WHITE
R	Platinum-Rhodium 13%	Platinum	Ext. colour + = ORANGE, - = WHITE
S	Platinum-Rhodium 10%	Platinum	Ext. colour + = ORANGE, - = WHITE
B	Platinum-Rhodium 30%	Platinum-Rhodium 6%	Ext. colour + = GREY, - = WHITE

ACCESSORIES (SEE DATASHEET)

- Extension cable
- Compensating cable
- Standard or miniature connector
- Cable seal for plug and socket connector
- Miniature or standard connectors panel
- Miniature or standard connectors panel
- Extension lead
- Converters



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