

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



**Type SFC K et SFCR K**

SFC K – SFCD 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**.....*For SFCK and SFCRK series*  
(According to cable) 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

*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

**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



**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.  
from -20°C to +80°C

**Storage temperature**.....from -20°C to +80°C

**Output**.....stripped wires, male miniature connector or standard on request

**Contact tip and fitting**.....*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

*For SFCKI and SFCRKI series*  
Inconel contact tip 600 T max. 1000°C  
Stainless steel compression fitting 316L T max. 800°C  
Angled at 90° (Other on request)

**Thread of the fitting**.....1/2' or 1/4' Gas



**Mounting of the fitting**.....**On L2 length (See schema)** : 12 or 14 corresponding to 1/2' G and 1/4' G compression fitting  
**On L1 length (See schema)** : 12L1 or 14L1 corresponding to 1/2' G et 1/4' G compression fitting

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

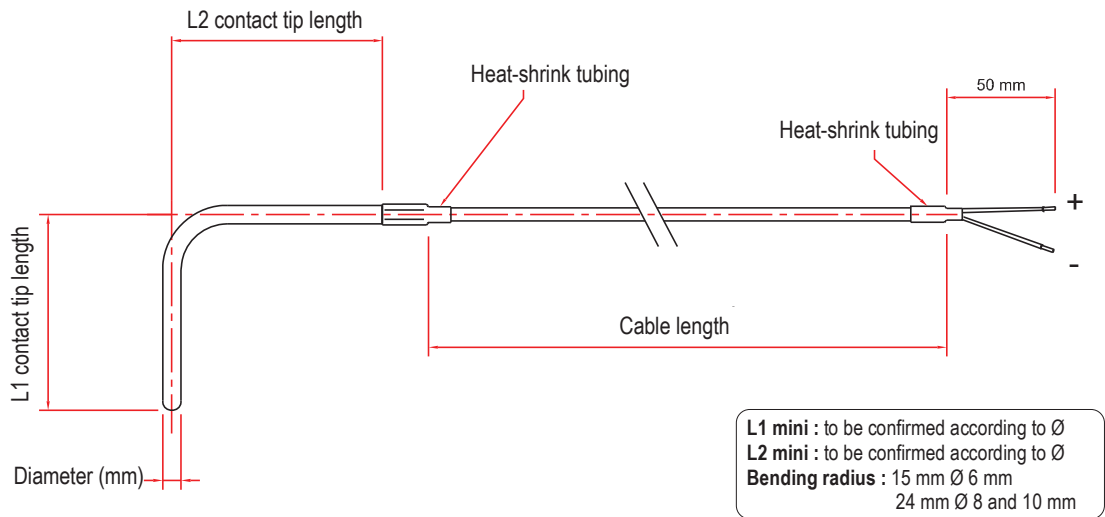
\* Performed in laboratory conditions, the above accuracies mentioned in this document will be guaranteed, provided that you use the calibration compensation data or identical calibration conditions.

# SFC & SFC-I

Angled wire probe or lined inconel

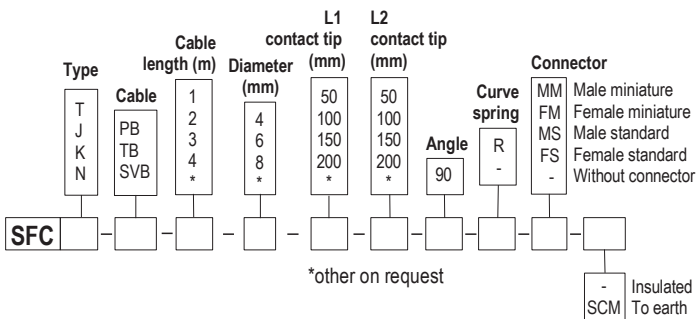


## ■ Dimensions

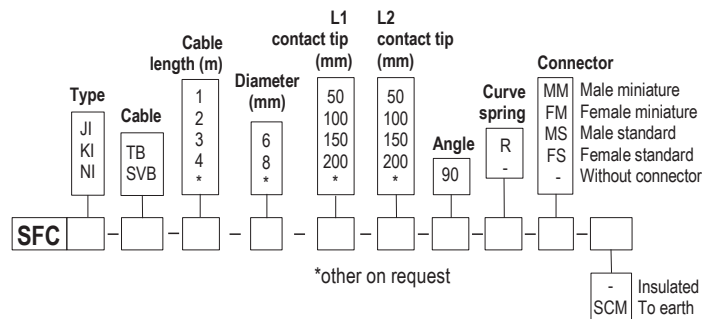


## ■ Part numbers

### • SFC - Stainless steel contact tip -



### • SFC-I – Inconel contact tip -



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.

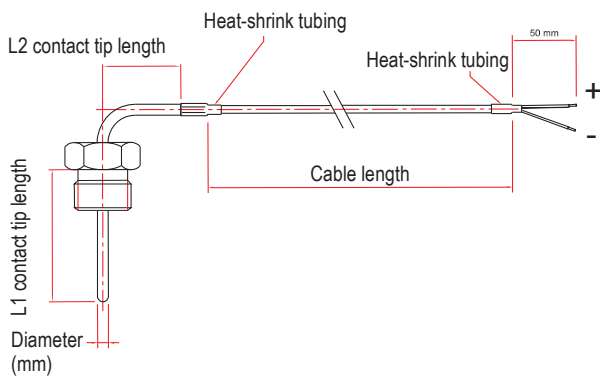
# SFCR & SFCR-I

Angled wire probe or lined inconel with fitting

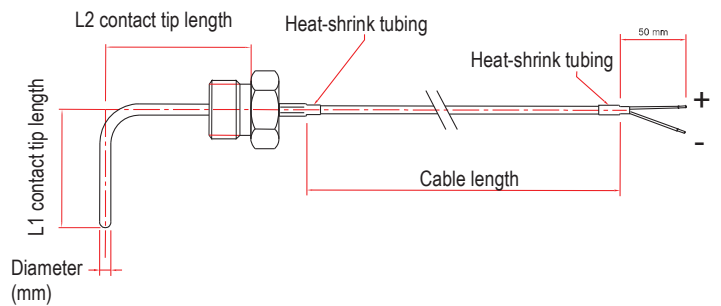


## ■ Dimensions

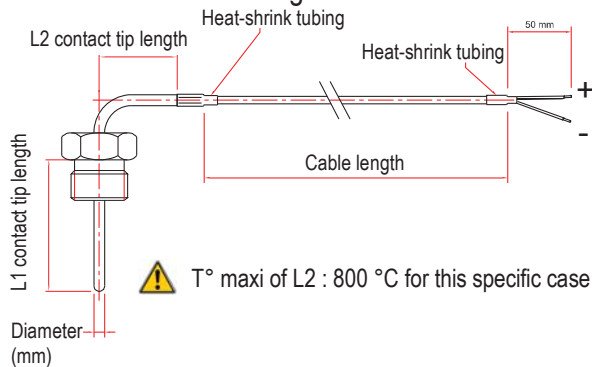
### • Stainless steel with fitting on L1



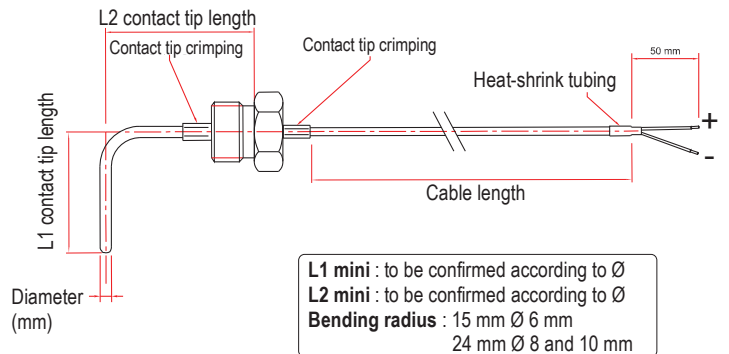
### • Stainless steel with fitting on L2



### • Lined inconel with fitting on L1



### • Lined inconel with fitting on L2



## ■ Part numbers

### • SFCR - Stainless steel contact tip -

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

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

\*other on request      Curve spring [ R ]      [ - ] Insulated To earth [ SCM ]

### • SFCR-I - Inconel contact tip -

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

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

\*other on request      Curve spring [ R ]      [ - ] Insulated To earth [ SCM ]

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 $\pm 0.5^\circ\text{C}$ From 125°C to +350°C $\pm 0.004 \times T^\circ\text{abs}$
J	From -40°C to +750°C	From -40°C to +375°C $\pm 1.5^\circ\text{C}$ From 375°C to 750°C $\pm 0.004 \times T^\circ\text{abs}$
K	From -40°C to +1000°C	From -40°C to +375°C $\pm 1.5^\circ\text{C}$ From 375°C to 1000°C $\pm 0.004 \times T^\circ\text{abs}$
N	From -40°C to +1000°C	From -40°C to +375°C $\pm 1.5^\circ\text{C}$ From 375°C to 1000°C $\pm 0.004 \times T^\circ\text{abs}$

\* 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. color + = GREEN, - = WHITE
T	Copper	Copper-Nickel	Ext. color + = BROWN, - = WHITE
J	Iron	Copper-Nickel	Ext. color + = BLACK, - = WHITE
N	Nickel 84,4% Chromium 14,2% Silicium 1,4%	Nickel 95,6% Silicium 4,4%	Ext. color + = PINK, - = WHITE
R	Platinum-Rhodium 13%	Platinum	Ext. color + = ORANGE, - = WHITE
S	Platinum-Rhodium 10%	Platinum	Ext. color + = ORANGE, - = WHITE
B	Platinum-Rhodium 30%	Platinum-Rhodium 6%	Ext. color + = GREY, - = WHITE

## Accessories (See data sheet)

- 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



[www.kimo.fr](http://www.kimo.fr)



**EXPORT DEPARTMENT**

Tel : + 33. 1. 60. 06. 69. 25 - Fax : + 33. 1. 60. 06. 69. 29

e-mail : [export@kimo.fr](mailto:export@kimo.fr)

Distributed by :

**PRC Technologies Corp., Ltd.**

Tel: 02 530 1714, 02 530 1619, 02 530 1621

Fax: 02 530 1731

Email: [info@prtechth.com](mailto:info@prtechth.com), [www.prtechth.com](http://www.prtechth.com)