

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' au pas Gaz*

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



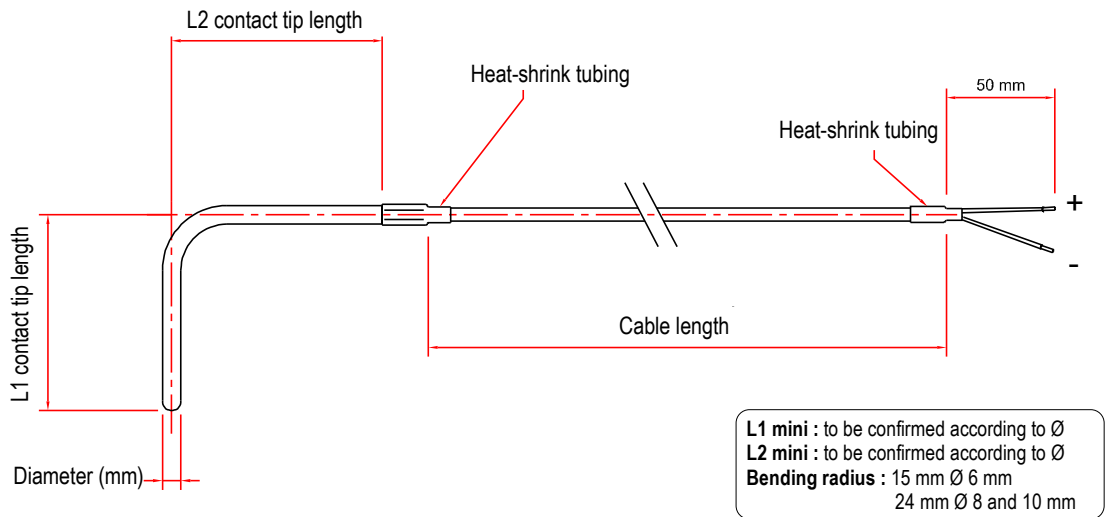
⚠ T° maxi of L2 : 800 °C for this specific case

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

SFC [] - [] - [] - [] - [] - [] - [] - []

*other on request

[] Insulated 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

SFC [] - [] - [] - [] - [] - [] - [] - []

*other on request

[] Insulated 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.

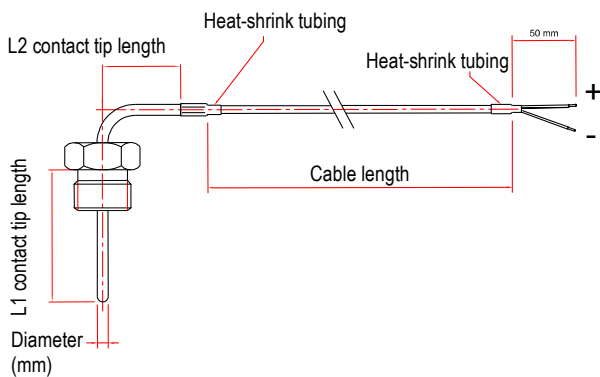
SFCR & SFCR-I

Angled wire probe or lined inconel with fitting

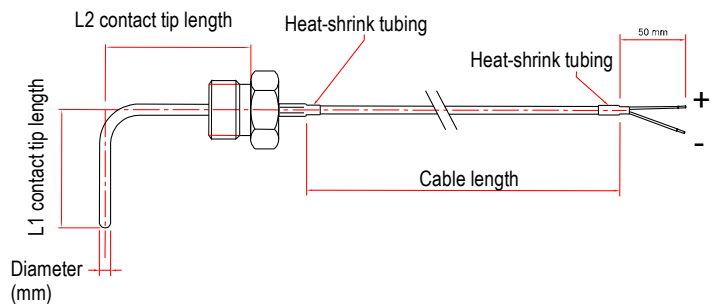


■ Dimensions

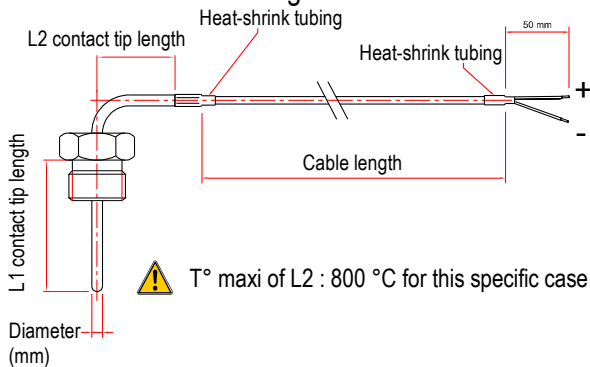
• Stainless steel with fitting on L1



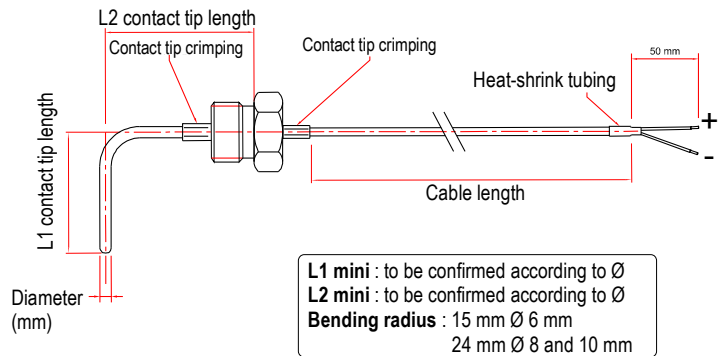
• Stainless steel with fitting on L2



• Lined inconel with fitting on L1



• Lined inconel with fitting on L2



■ Part numbers

• SFCR - Stainless steel contact tip -

Type	Cable		L1 contact tip diameter (mm)	L2 contact tip (mm)	Angle	Fitting	Connector	
	length (m)	Diameter (mm)					MM	Female standard
T	1	4	50	50	90	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 standard
J	1	4	50	50	90	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

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 $\pm 0.004 \times T^\circ\text{abs}$

■ 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

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