Duct thermocouple Type J with silicone cable

Article no.: 803763 1111

Our Duct thermocouple type J with silicone cable is an air thermocouple for air ducts and is suitable for measuring temperatures in gaseous media, especially in air ducts. The exposed measuring element is housed in a perforated stainless steel sleeve, providing mechanical protection while the perforation allows for a fast response time. The silicone cable is designed for operating temperatures from -50 to +180 °C.

General Information	
Measuring range	-50 °C to +180 °C depending on chosen connection cable
Perm. °C range cable	-50 °C to +180 °C
Accuracy	-40 °C to +375 °C: ±1,5 °C according to DIN IEC 60584 Class 1
Pull-out force	≥ 30 N

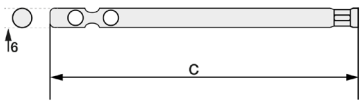
Supply and output	
Measuring element	Thermocouple Type J
Measuring point	Measuring point isolated
Measurement signal	Thermovoltage

Ambient conditions	
Protection class	none (measuring element is exposed)
Humidity and moisture condensation resistance	according to application-specific qualification

Certificates and Standards	
Standards	DIN EN 61326-1:2013 | DIN EN IEC 63000:2019-05
Directive	RoHS 2011/65/EU | 2014/30/EU

Customizable options
C - Length protection sleeve
E - Material connection cable
F - Length connection cable
G - Connector
H - Bend protection

Protection sleeve		C - Length prot. sleeve	
Material	Stainless steel 1.4571 | 316TI	**Code**	**Length (mm)**
Length (mm)	please choose	C0100	100[1]
Ø (mm)	6[1]	C0200	200[1]



other protective sleeve lengths and Ø available on request | [1] Tolerance ± 0,1 mm

E - Cable material and configuration connection cable

Picture	Code	Type	Color	IP	From (°C)[1]	To (°C)[1]	Outside material	Material strand	Ø (mm)[2]	Q (mm²)	Color strand
	E8210	Thermocouple cable	Type J[3]	IP67	-50	+180	Silicone	FEP	3,6	0,22	bk, wt
	Insulation resistance: ≥ 100 MOhm at min. 100 VDC | [1]Perm. range °C | [2]Tolerance ± 0,2 mm | [3]Color according to IEC 584 | [4]per thermocouple										

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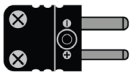
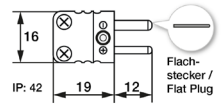
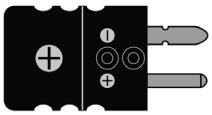
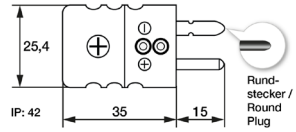
F - Length								
Code	F010	F020	F030	F040	F050	F100	F150	F200
m	1	2	3	4	5	10	15	20
Other lengths on request								

G - Connector			
Picture	**Code**	**Feature**	**Technical drawing - connector**
	G01	Insulated end ferrules (50 mm)	
	G11	Mini-TC connector Type J bk	
	G31	TC connector Type J bk	

H - Bend protection				
Picture	**Length (mm)**	**Material**	**Code**	**Feature**
	50	Stainless steel spring 1.4310 | SUS 302	H0	Without (Standard)
			H1	Metal bend protection

Your order code					
Article no.	Length protection sleeve	Material connection cable	Length connection cable	Connector	Bend protection
803763 1111	C____	E_____	F_____	G_____	H_____

Delivery and Assembly	
Assembly instructions	by using a clamp connection or immersion sleeve | The exposed measuring element is sensitive to mechanical damage. Therefore, do not press the tip of the sleeve with your fingers or a pointed object.
Delivery and Packaging	Probe, Instruction manual, seperatly packaged in PE bag

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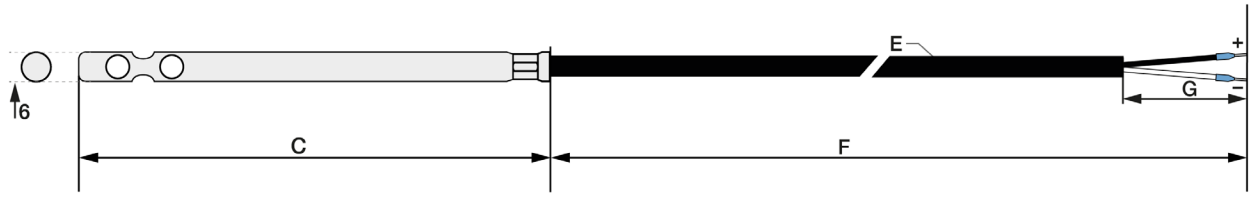
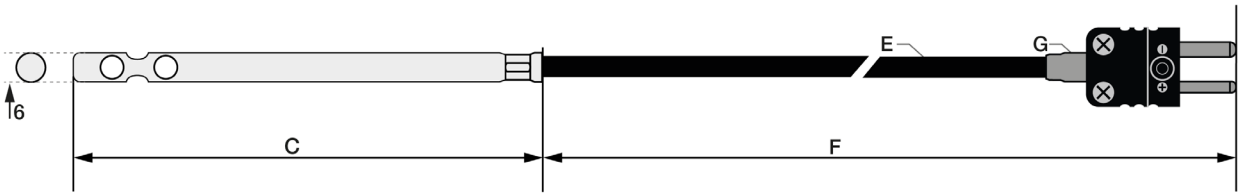
Technical drawing			
Customizable options C - Length protection sleeve	E - Material connection cable F - Length connection cable	G - Connector H - Bend protection	All dimensions in mm

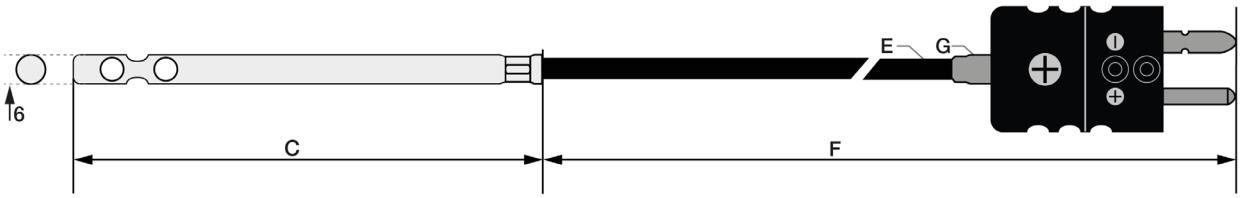
Version with insulated end ferrules



Version with Mini TE connector



Version with TE connector



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Matching accessories: Thermocouple cables

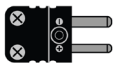
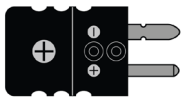
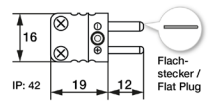
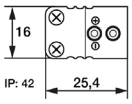
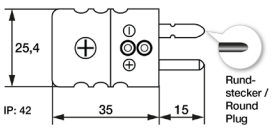
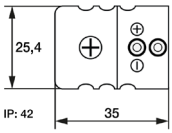
Thermocouple cables - Please select your desired cable first.												
	Order code	**Type**	**Color**	**IP**	**From (°C)[1]**	**To (°C)[1]**	**Outside material**	**Material strand**	**Ø (mm)[2]**	**Q (mm²)**	**Color strand**	**Ω / m[4]**
	809310 1	Thermocouple cable	Type J[3]	IP67	-50	+180	Silicone	FEP	3,6	0,22	bk, wt	2,50

Insulation resistance: ≥ 100 MOhm at min. 100 VDC | [1]per. °C range | [2]Tolerance ± 0.2 mm | [3] Color according to IEC 584 | [4]per thermocouple

Now please select the length and add the code to the article no. of the cable.					
Length (m)	1	2	5	10	20
Code	010	020	050	100	200

Please append these digits to the part number of your desired cable.

Matching accessories: Connector

G - Connector					
Picture	**Code**	**Feature**	**Picture**	**Code**	**Feature**
	809140 1000	Mini-TC connector Type J bk		809100 1000	Mini-TC coupling Type J bk
	809150 1000	TC connector Type J bk		809110 1000	TC coupling Type J bk
Technical drawing - connector					
		Mini-TC connector			Mini-TC coupling
		TC connector			TC coupling

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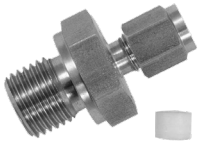
Matching accessories: Compression fittings

Compression fitting with PTFE clamping ring

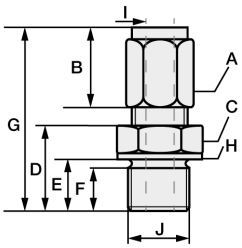
Compression fittings with PTFE clamping ring can be used several times. They are only pressure-tight up to 10 bar. For assembly, please tighten the connecting nut of the compression fitting by hand as far as it will go (clearly noticeable) by hand. With a wrench suitable for the width across flats, please make a 1/4 turn for compression fittings with PTFE pressure ring.



Article no.	809610 2XXX	Code	I - Ø Inside (mm)	Code	J - Process connection
Temp. max	+260 °C	0	1	27	M6x1[1)]
Pressure proof up to	10 bar	1	1,5	28	M8x1[1)]
Material	Stainless steel 1.4571 | 316TI	3	3	22	M10x1
Material clamping ring	PTFE	6	6	14	G1/8 "
Scope of delivery	Compression fitting, packed in PE bag			12	G1/4 "
				11	G1/2 "
Your order code	809610 2	_		_ _	

Append the code for Ø Inside & process connection to the article no. | [1)] not available for Ø Inside (I) 6 mm

Dimensions for technical drawing

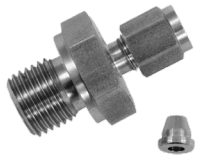


I	J	A	B	C	D	E	F	G	H
1	M6x1[1)]	SW10	13	SW12	13	9	8	31	Ø10
1,5	M8x1[1)]	SW10	13	SW12	13,5	9,5	8	31	Ø11,8
3	M10x1	Ø 1,5 & 3: SW10 | Ø 6: SW12	13	SW14	13,5	9,5	8	32	Ø13,8
6	G1/8 "	Ø 1,5 & 3: SW10 | Ø 6: SW12	13	SW14	13,5	9,5	8	32	Ø13,8
	G1/4 "	Ø 1,5 & 3: SW10 | Ø 6: SW12	13	SW19	20	14	12	38,5	Ø18
	G1/2 "	Ø 1,5 & 3: SW10 | Ø 6: SW12	13	SW27	23	17	14	38,5	Ø26

All dimensions in mm | [1)] not available for Ø Inner (I) 6 mm

Compression fitting with stainless steel cutting ring

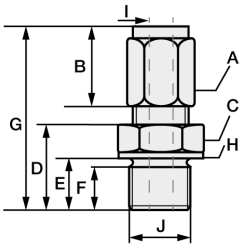
In compression fittings with stainless steel cutting ring, the compression fitting connects with the protective sleeve. This connection is pressure-resistant up to 40 bar. Therefore, these compression fittings can also only be used once and must be tightened more firmly. For assembly, please tighten the union nut of the compression fitting by hand as far as it will go (clearly noticeable). With a wrench suitable for the wrench size, please make 1 3/4 turns for compression fittings with stainless steel cutting ring.



Article no.	809610 1XXX	Code	I - Ø Inside (mm)	Code	J - Process connection
Temp. max	+800 °C	1	1,5	27	M6x1[1)]
Pressure proof up to	40 bar	3	3	28	M8x1[1)]
Material	Stainless steel 1.4571 | 316TI	6	6	22	M10x1
Material clamping ring	Stainless steel 1.4571 | 316TI			14	G1/8 "
Scope of delivery	Cutting ring screw fitting, packed in PE bag			12	G1/4 "
				11	G1/2 "
Your order code	809610 1	_		_ _	

Append the code for Ø Inside & process connection to the article no. | [1)] not available for Ø Inside (I) 6 mm

Dimensions for technical drawing



I	J	A	B	C	D	E	F	G	H
1	M6x1[1)]	SW10	13	SW12	13	9	8	31	Ø10
3	M8x1[1)]	SW10	13	SW12	13,5	9,5	8	31	Ø11,8
6	M10x1	Ø 1,5 & 3: SW10 | Ø 6: SW12	13	SW14	13,5	9,5	8	32	Ø13,8
	G1/8 "	Ø 1,5 & 3: SW10 | Ø 6: SW12	13	SW14	14	9,5	8	32	Ø13,8
	G1/8 "	Ø 1,5 & 3: SW10 | Ø 6: SW12	13	SW19	20	14	12	38,5	Ø18
	G1/4 "	Ø 1,5 & 3: SW10 | Ø 6: SW12	13	SW27	23	17	14	38,5	Ø26

All dimensions in mm | [1)] not available for Ø Inner (I) 6 mm

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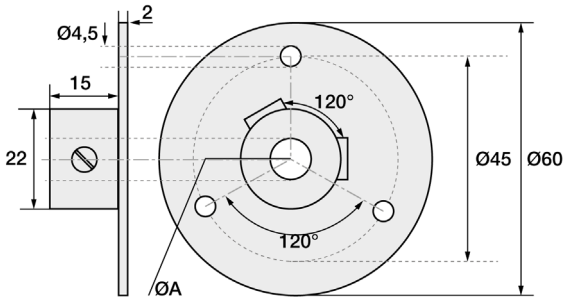
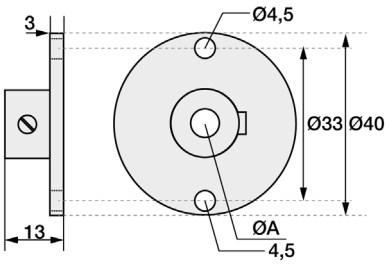
Matching accessories: Mounting flange

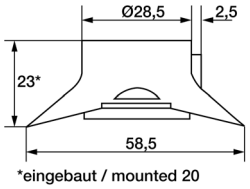
Steel flange	
Article no.	809500 1XXX
Material	Stainless Steel
Fixing	3 x Ø 4,5 mm drill holes
Now please select the size of the hole and append the last digits to your order number.	
A - Hole (mm)	**Code**
6	060
9	090
10	100
15	150
Your order code 809500 1_ _ _	

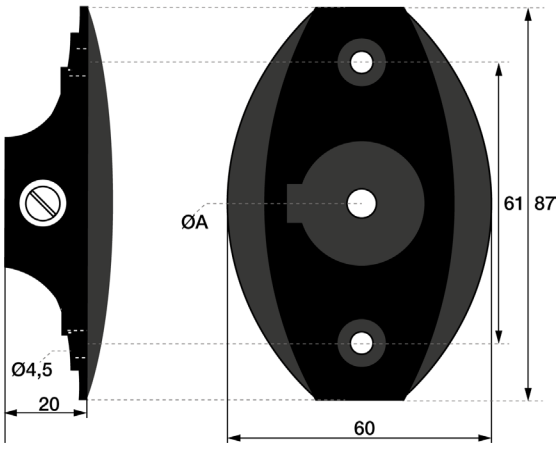


Aluminium flange	
Article no.	809500 2XXX
Material	Aluminium
Fixing	2 x Ø 4,5 mm drill holes
Now please select the size of the hole and append the last digits to your order number.	
A - Hole (mm)	**Code**
6	060
11	110
Your order code 809500 2_ _ _	



Plastic flange	
Article no.	809500 4XXX
Material	Plastic
Fixing	2 x Ø 4,5 mm drill holes
Now please select the size of the hole and append the last digits to your order number.	
A - Hole (mm)	**Code**
6	060
12	120
Your order code 809500 4_ _ _	





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