Bayonet probe type K with conical measuring tip

Order nr.: 802211 1211

Bayonet thermocouples are used in process measurement technology, e.g. in the plastics industry. The immersion depth or mounting length can be adjusted to suit the measuring task by means of the rotatable bayonet cap. The bayonet lock ensures a secure hold and the threaded rising spring ensures a constant contact pressure. To configure your bayonet probe for your measuring task, simply select the required configuration features and send us the order code.

General Information	
Measuring range	-40 °C to +400 °C
Perm. °C range cable	-50 °C to +400 °C
Accuracy	-40 °C to +375 °C: ±1,5 °C | 375 °C to 1.000 °C: ±0,004 |t| according to DIN IEC 60584 Class 1
Response time	t63 / t99: information is available on request
Pull-out force	≥ 30 N
Supply and output	
Measuring element	Thermocouple Type K
Measuring point	Measuring point isolated
Measurement signal	Thermovoltage
Ambient conditions	
Protection class	IP20 according DIN 60529 (depending on cable)
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
Certificates	Certificate of suitability (on request)

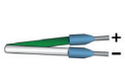
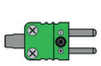
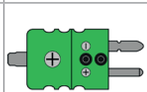
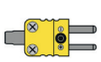
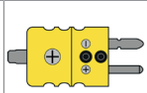
Customizable options
E - Material connection cable
F - Length connection cable
G - Connector
I - Ø bayonet tip
J - Ø bayonet cap

E - Cable material and configuration connection cable

	Code	Type	Color	IP	From (°C)[1]	To (°C)[1]	Outside material	Material strand	Ø (mm)[2]	Q (mm²)	Color strand	Ω / m[4]
	E8320	Thermocouple cable	Type K[3]	IP20	-50	+400	Varnish	Glass fibre	3,0	0,22	gn, wt	4,50

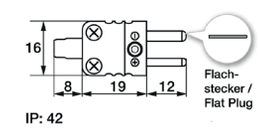
Insulation resistance: ≥ 100 MOhm at min. 100 VDC | [1]Perm. range °C | [2]Tolerance ± 0,2 mm | [3]Color according to IEC 584 | [4]per thermocouple

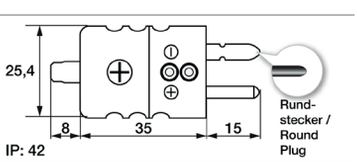
G - Connector

Picture	Code	Feature	Picture	Code	Feature
	G01	Insulated end ferrules (50 mm)			
	G12	Mini-TC connector Type K gn		G32	TC connector Type K gn
	G19	Mini-TC connector Type K ye		G39	TC connector Type K ye

Other connectors available on request

Technical drawing - Connector





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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

Probe design	
Mounting length (mm)	10 to 240
Design	120° measuring tip

Bayonet cap		
	Material	Nickel plated
	Length (mm)	16
	J - Bayonet cap	
	Code	**Ø (mm)**
	J12	12
	J14	14

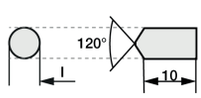
Delivery and Assembly	
Assembly instructions	via bayonet fitting
Delivery and Packaging	Probe, seperatly packaged in PE bag

Pressure spring	
Material	Stainless steel spring 1.4310 | SUS 302
Length (mm)	250

Bayonet tip	
Material	Stainless steel 1.4301 | SUS 304
Length (mm)	10

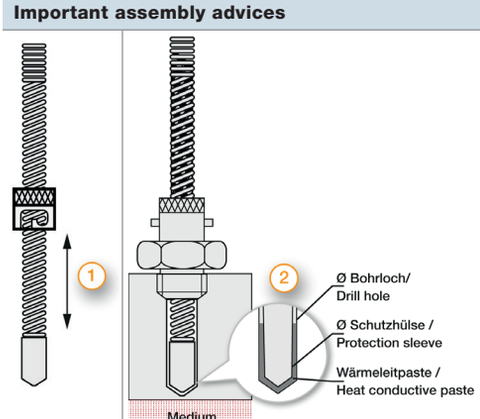
I - Bayonet tip	
Code	**Ø (mm)**
I6	6[1)]
I8	8[1)]

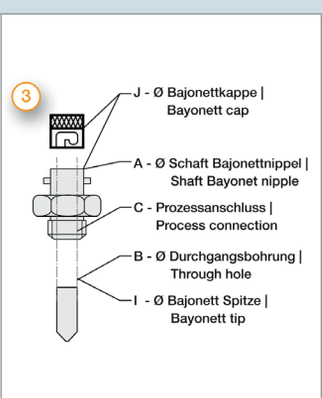
[1)]Tolerance ± 0,1 mm



Your order code					
Order nr.	Material connection cable	Length connection cable	Connector	Ø bayonet tip	Ø bayonet cap
802211 1211	E_____	F_____	G_____	I_____	J_____

Important assembly advices





For optimal integration of the bayonet probe into your process, please observe the following installation steps:
(1) Please set the bayonet spring to the desired length and make sure that the spring pressure is sufficiently high. The spring constant may decrease with temperature influence. Therefore, check the contact pressure regularly and readjust if necessary.

(2) Insert the probe tip into the borehole and fix the probe to the bayonet nipple with the bayonet cap. The borehole should be made so that the borehole is approx. 0.2 mm larger than the outer diameter of the probe and that the borehole corresponds to the shape of the probe tip. The borehole must be clean and free of residues (e.g. shavings). To optimize heat transfer, we recommend using our heat conductive paste at temperatures below 200 °C.

(3) For a safe installation, please select the appropriate bayonet nipple from our accessories. Make sure that the process connection thread is suitable for your application.

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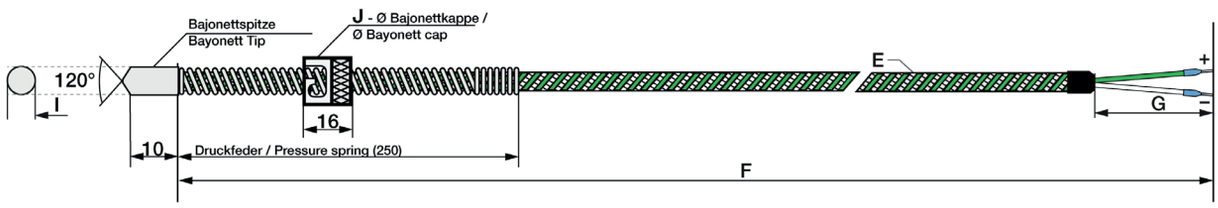
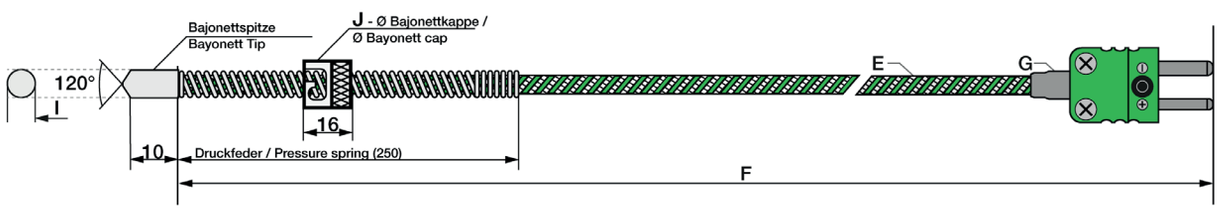
Technical drawing (All dimensions in mm)

Customizable options E - Material connection cable F - Length connection cable G - Connector	I - Ø bayonet tip J - Ø bayonet cap All dimensions in mm

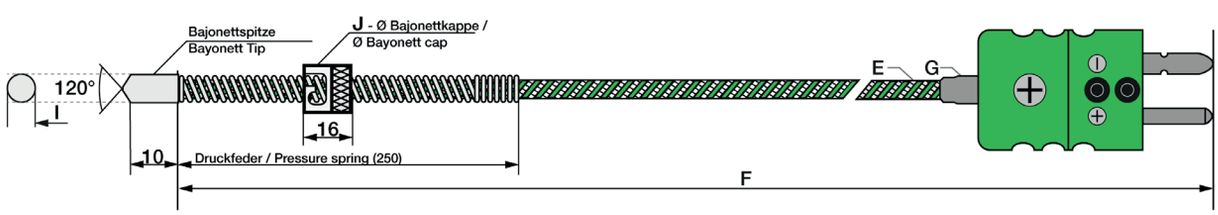
Version with insulated end ferrules



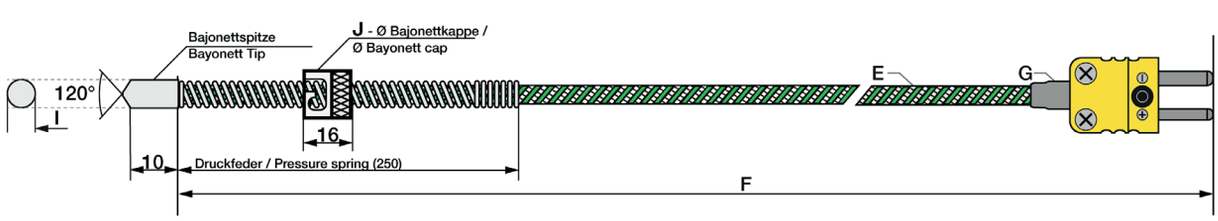
Version with mini TE connector



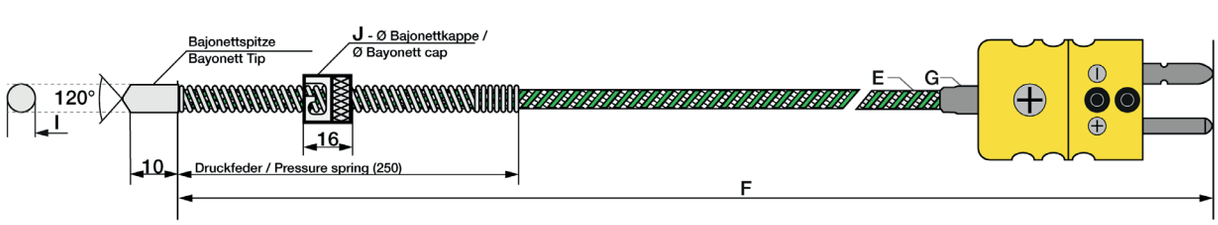
Version with TE connector



Version with mini TE connector



Version with TE connector



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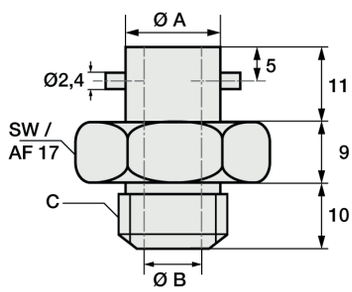
All dimensions in mm

Matching accessories: Bayonet nipple / Threaded nipple

Bayonet nipple / Threaded nipple					
Material	**Please select the appropriate dimensions.**				**Technical drawing**
Nickel plated	**Article no.**	**A - Ø shaft (mm)**	**B - Through hole (mm)**	**C - Screw-in thread**	
Total length (mm)					
30	809601 2622	12	6,5	M10 x 1	
Picture	809601 2812	12	8,5	G1/4 "	
	809601 2823	12	8,5	M12	
	809601 2824	12	8,5	M12x1	
	809601 2825	12	8,5	M12x1,5	
	809601 2826	12	8,5	M14x1,5	
	809601 4812	14	8,5	G1/4 "	
	809601 4823	14	8,5	M12	
	809601 4824	14	8,5	M12x1	
	809601 4825	14	8,5	M12x1,5	
	809601 4826	14	8,5	M14x1,5	



Details of accessories can be found on our website.

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Matching accessories: Thermocouple cables & Connector

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]
	809340 2	Thermocouple cable	Type K[3]	IP20	-50	+400	Varnish	Glass fibre	3,0	0,22	gn, wt	4,50

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

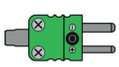
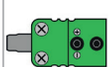
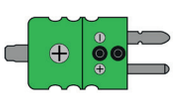
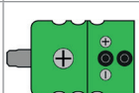
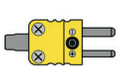
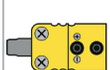
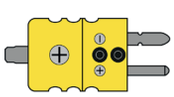
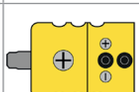
Now please select the length and add the code to the article no. of the cable.

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.

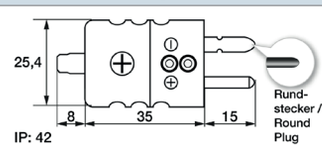
Matching accessories: Connector

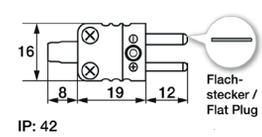
Connector

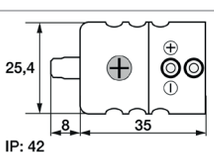
Picture	Code	Feature	Picture	Code	Feature
	809140 2000	Mini-TC connector Type K gn		809100 2000	Mini-TC coupling Type K gn
	809150 2000	TC connector Type K gn		809110 2000	TC coupling Type K gn
	809140 2001	Mini-TC connector Type K ye		809100 2001	Mini-TC coupling Type K ye
	809150 2001	TC connector Type K ye		809110 2001	TC coupling Type K ye

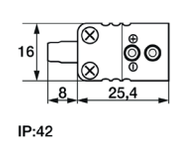
Other connectors available on request

Technical drawing - Connector









Matching accessories: Heat-conducting paste

Heat-conducting paste

	Article no.	809540 1000
	Content	10 ml
	Thermal conductivity	>2.5 W/mK
	Min / Max °C	-30 °C to +280 °C
	Thermal resistance	< 0.126

Details of accessories can be found on our website.

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