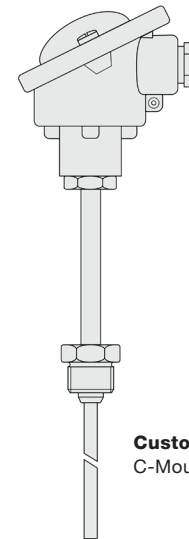


# Thermocouple Type J with B-Head - HL

**Article no.: 803021 6111**

Our screw-in thermocouple type J with B-head - HL is suitable for use in the high temperature range up to 750 °C and is installed via the G1/2 " thread and the neck tube. The B-head with the protection sleeve and neck tube is designed according to DIN43772 Form 2G and has a replaceable measuring insert. To configure your screw-in thermocouple for your measuring task, simply select the required configuration features and send us the order code.



**Customizable options**  
C-Mounting length

General Information	
Measuring range	-40 °C to +750 °C
Perm. (°C) conn. head	-40 °C to +100 °C
Accuracy	-40 °C to +375 °C: ±1,5 °C   375 °C to 750 °C: ±0,004  t  according to DIN IEC 60584 Class 1
Supply and output	
Measuring element	Thermocouple Type J
Measuring point	Measuring point isolated
Measurement signal	Thermovoltage
Ambient conditions	
Protection class	IP54 according to DIN 60529
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

Connection head	
Design	Form B
Material	Aluminium
W/H/Ø (mm)	76/82/70
Color	RAL 9006 aluminium silver
Cable gland head	with strain relief
Cable electrical connection	Screw terminals max. 2,5mm <sup>2</sup>
Clamping range (mm)	4,8 to 13
Ambient temperature max	+100 °C
Sensor unit	Replaceable

Screw-in thread		Your order code		C - Mounting length			
Material	Stainless steel 1.4571   316TI	Article no.	Code	Length (mm)			
Length (mm)	14					C0050	50 <sup>1)</sup>
Process connection	G1/2 "					C0100	100 <sup>1)</sup>
Wrench size	27					C0150	150 <sup>1)</sup>
Protection sleeve		803021 6111	C	C0200	200 <sup>1)</sup>		
Material	Stainless steel 1.4571   316TI			C0250	250 <sup>1)</sup>		
Mounting length (mm)	please choose			C0300	300 <sup>1)</sup>		
Ø (mm)	9 <sup>2)</sup>			C0400	400 <sup>1)</sup>		
Length neck tube (mm)	80			C0500	500 <sup>1)</sup>		
Other mounting lengths on request   <sup>1)</sup> Tolerance ± 1%   <sup>2)</sup> Tolerance ± 0,1 mm							

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## Testo Sensor GmbH

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Please find our whole temperature probe and transmitter portfolio in our webshop at: [www.testo-sensor.shop](http://www.testo-sensor.shop)

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Amtsgericht Freiburg HRB 706025 | Umsatzsteuer-ID.: DE274417683

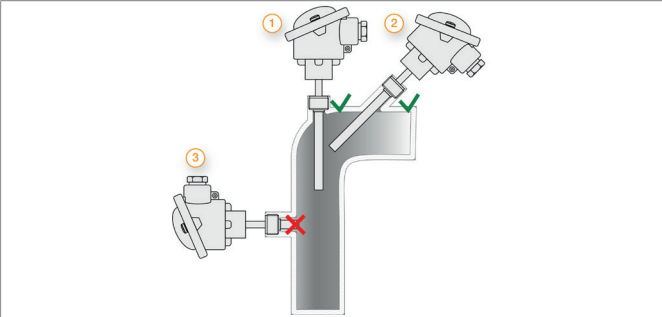
Testo-Straße 1  
D-79853 Lenzkirch

**Delivery and Assembly**

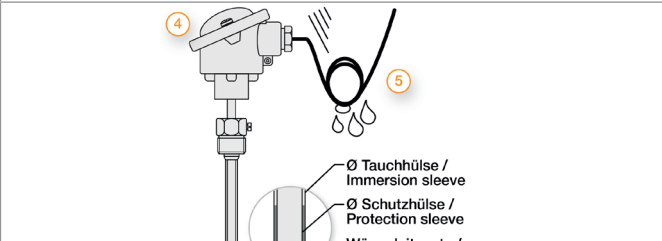
Delivery and Packaging	Probe, separately packaged in PE bag
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**Important assembly advices**

Measuring errors can occur due to heat dissipation to the environment. To keep these as small as possible, we recommend immersing the protection sleeve of your temperature probe as deep as possible into the medium to be measured during installation. The optimum installation depth should be 10-15 times the Ø of the protection sleeve or, if an immersion sleeve is used, the Ø of the immersion sleeve. When installing in pipes whose Ø does not have a sufficiently deep installation depth, you should either install the probe at an angle or in a pipe elbow. Make sure that you have enough space so that the probe can be removed again. 1) Installation with sufficient installation depth 2) Installation at an angle with small pipe Ø 3) Not like this: Minimum installation depth not reached



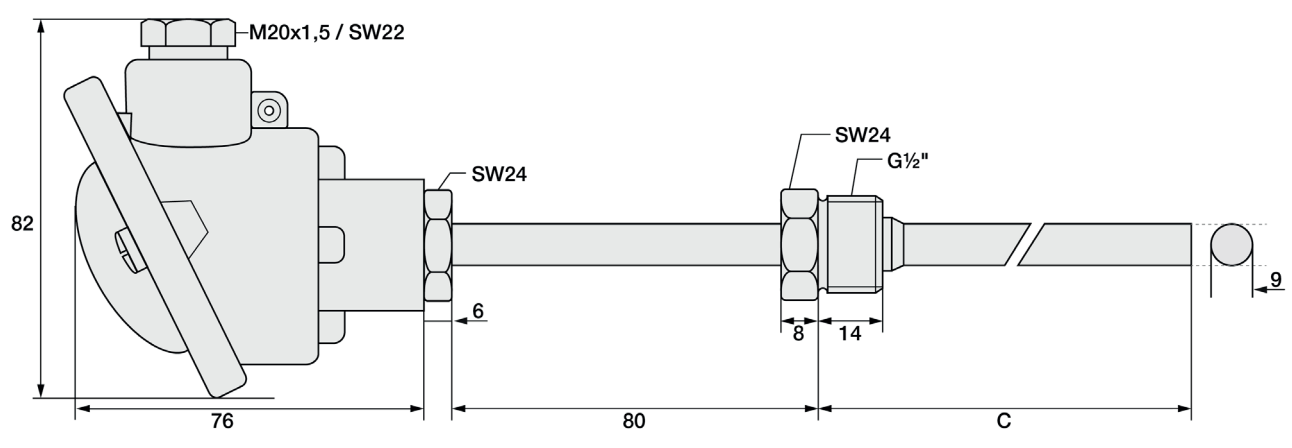
Installation by using an immersion sleeve (4): Please ensure that the Ø and length of the immersion sleeve are selected to suit the installation situation so that the minimum immersion depth can be achieved. Please also ensure that the process connection is correct. Because the probe is not inserted directly into the medium, but via the immersion sleeve, the response times are somewhat slower. The probe should be selected so that the protection sleeve touches the bottom of the immersion sleeve and the air cushion around the protection tube is as small as possible. The use of thermal conduction paste can improve the response times.



Please lay the cable so that no water can penetrate the probe and with a spare loop (4). This allows you to extend the probe without disconnecting the electrical connection.

**Technical drawing**

<b>Customizable options</b>	C - Mounting length	All dimensions in mm
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# Matching accessories: Thermocouple cables

Details of accessories can be found on our website.





Thermocouple cables											
Please select your desired cable first.											
Order code	Type	Color	IP	From (°C) <sup>1)</sup>	To (°C) <sup>1)</sup>	Outside material	Material strand	Ø (mm) <sup>2)</sup>	Q (mm <sup>2</sup> )	Color strand	Ω / m <sup>4)</sup>
809300 1	Thermocouple cable	Type J <sup>3)</sup>	IP67	-30	+90	PVC	PVC	3,8	0,22	bk, wt	2,50
809310 1	Thermocouple cable	Type J <sup>3)</sup>	IP67	-50	+180	Silicone	FEP	3,6	0,22	bk, wt	2,50

Insulation resistance: ≥ 100 MOhm at min. 100 VDC | <sup>1)</sup>per. °C range | <sup>2)</sup>Tolerance ± 0.2 mm | <sup>3)</sup>Color according to IEC 584 | <sup>4)</sup>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 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

Other connectors available on request

# 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

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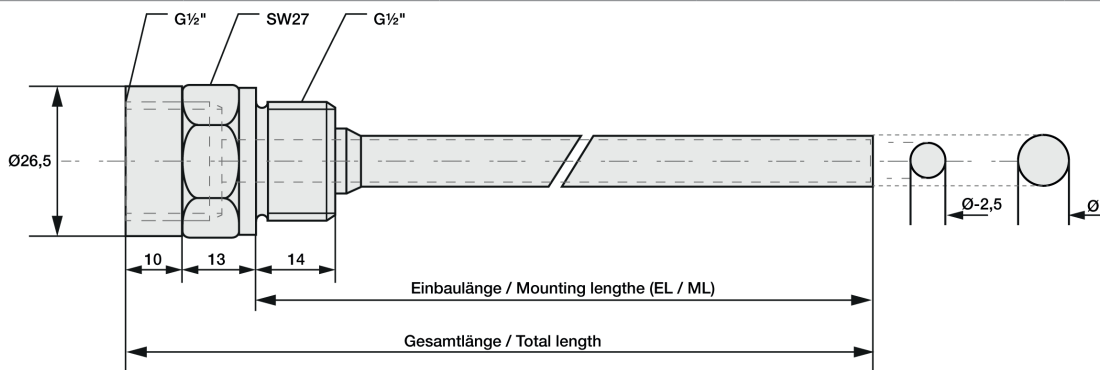
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# Matching accessories: Immersion sleeves

Immersion sleeves		Please select Ø and mounting length and append the codes to your order code.				
Picture	Immersion sleeve G1/2 " with internal thread		Code	Ø Inside / Outside (mm)	Code	ML (mm)
	Article no.	809520 3XXX				
	Temp. Max	+600 °C				
	pressure proof until	40 bar	1	6,5 / 9	03	30
	Material	Stainless steel 1.4571   316TI	2	7,5 / 10	08	80
	Process connection	G1/2 "	3	8,5 / 11	13	130
	Wrench size	27	4	9,5 / 12	18	180
	Screw-in thread	G1/2 "			23	230
	Scope of delivery	Immersion sleeve, packed in PE bag			28	280
					38	380
Your order code	809520 3	-		--		

## Technical drawing Immersion sleeves



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