

Product category 18-TKL Micro- and Laboratory Thermocouple Assemblies



Application Examples for Micro- and Laboratory Thermocouple Assemblies:

Ö,	Plant and Machine Construction
8	Steel and Iron Industry
	Automobile Industry
<u>>>>></u>	Heat Treatment
	Chemical Industry
Ś	Laboratories

Industrial Furnace Construction

18-TKL

Micro- and Laboratory Thermocouple Assemblies

Micro- and laboratory thermocouple assemblies (18-TKL) are preferentially used for technical temperature measurements in liquid and gaseous media within a temperature range between 200°C and 1800°C.

Micro- and laboratory thermocouple assemblies differ from conventional thermocouple assemblies in their very small dimensions, light weight and variable mounting options. They also warrant exact temperature measurements within a constrained installation space. In consequence of design, these sensors also have very short reaction times.

There is a notable danger of "poisoning" noble metal thermocouples in micro- and laboratory thermocouple assemblies by substances diffusing through the protective fitting, such as those to be found in flue gas, for example. In order to avoid these types of influences, we recommend using a version employing gas-tight ceramic.

Operation Temperature for Platinum-Rhodium / Platinum Thermocouples:

Туре	Diameter	Maximum Temperature
S	0,35 mm	1350°C
S	0,50 mm	1600°C
R	0,35 mm	1350°C
R	0,50 mm	1600°C
В	0,35 mm	1600°C
В	0,50 mm	1800°C

The thermal materials used by GÜNTHER GmbH for micro- and laboratory thermocouple assemblies are pursuant to DIN EN 60584.

Further technical information for this product line, e.g. an overview of individual properties of most common ceramics, is available on our website:

http://www.guenther.eu/en/products/thermocouples/18-tkl/ smallest-and-laboratory-thermocouples

Visit us online at: www.guenther.eu



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)	Connection Types
	Head B
	Head DL
	Head L
	Connection Socket Type S
	The following listed connection types are fitted
	with welded holding tubes and connection
	socket type S.
	Head L with Tube 1.4571
	Head L with Tube 1.4571
	Connection Clip 55x20 mm
	Flanged Plate 60x60 mm
	Connection Socket Type S

2 Holding Tube (Materials)

St. 35.8	Mat. No. 1.0305
Brass	
Stainless Steel	Mat. No. 1.4571
Inconel	Mat. No. 2.4816

3 Process Connector (Detachable)

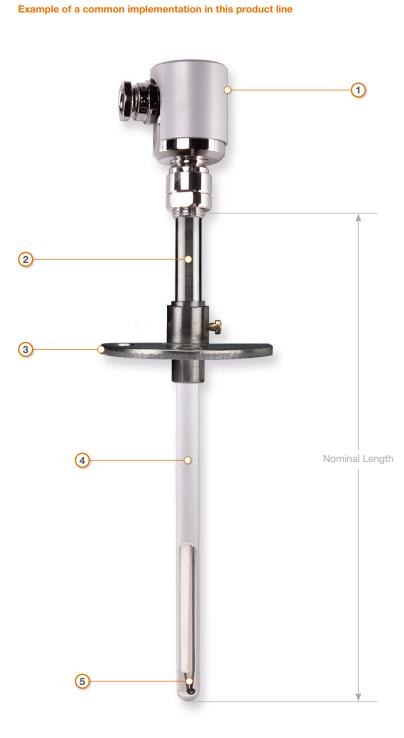
Flange
Threaded Socket
Flange / Counter Flange

4 Protective Tube (Materials)

C610
C799

(5) Thermocouple (Single, Double or Triple)

Type R	PtRh13-Pt
Type S	PtRh10-Pt
Туре В	PtRh30-PtRh6
Туре К	NiCr-Ni
Туре Ј	Fe-CuNi
Type L	Fe-CuNi
Туре С	WRe5-WRe26
Туре N	Nicrosil-Nisil
Type D	WRe3-WRe25



Individual Solutions such as, for example materials, process connectors, accessories, etc.not listed here, are often viable. Please contact us for further information!

		Γ	1 0								
Ceramic protecti	ion tube + them	nocouple	1 8	-				-			
Protection tub	e 6 x 4	mm	C610	1				Nom	inal len	igth / mm	
(dimensions /	6 x 4	mm	C799	2							
material)	7 x 4	mm	C799	3							
	7 x 4.5	mm	C610	4							
	7.5 x 5.5	mm	C610	5							
	8 x 5	mm	C610	6							
	10 x 7	mm	C610	7							
	10 x 6	mm	C799	8							
	8 x 5	mm	C799	9							
Contact termin	nations										
Head Type B 12	2.2 mm				11						
Head Type DL v		1 thread			12						
Head Type L wi					12						
Head Type L wi					14						
Connection soc					15						
Connection soc					16						
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Head Type L wi) mm		32						
	S connection		/ 11111		52					Temperati	irmesst
Type S connect			4571, 10 x 0 5	x 24 mm	33						
Type S connect					33					Bauhofst	raße 12
Connection clip				5 x 30 mm	35					D-90571	Schwa
	S connection		1.4071, 0 X 0		00						Commu
Connection clip			1.4571.10 ×	0.5 x 24 mm	36						
	S connection									Fel.	1
Flanged plate, 6			tube 1.4571, 1	12 x 2 x 25 mi	m 37				-	⊦49 (0)9 <mark>1</mark> 1	/ 50 69
	e S connection								5	Fax	
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Holding tubes											
Holding tubes	St. 35.8	Brass	1.4571	Alloy 600							
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