

THERMOCOUPLE PROBES FOR PORTABLE INSTRUMENTS

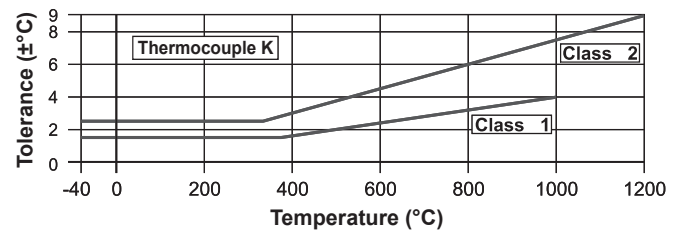
TOLERANCE CLASSES OF THERMOCOUPLES

Tolerances according to IEC 60584-2 standard. The values refer to thermocouples with reference junction at 0 °C.

Type of thermocouple	Tolerance class 1		Tolerance class 2		Tolerance class 3	
	Temperature range (°C)	Tolerance (°C)	Temperature range (°C)	Tolerance (°C)	Temperature range (°C)	Tolerance (°C)
B	---	---	+600...+1700	$\pm 0,0025 \cdot t$	+600...+800	± 4
	---	---	---	---	+800...+1700	$\pm 0,005 \cdot t$
E	-40...+375	$\pm 1,5$	-40...+333	$\pm 2,5$	-167...+40	$\pm 2,5$
	+375...+800	$\pm 0,004 \cdot t$	+333...+900	$\pm 0,0075 \cdot t$	-200...-167	$\pm 0,015 \cdot t$
J	-40...+375	$\pm 1,5$	-40...+333	$\pm 2,5$	---	---
	+375...+750	$\pm 0,004 \cdot t$	+333...+750	$\pm 0,0075 \cdot t$	---	---
K, N	-40...+375	$\pm 1,5$	-40...+333	$\pm 2,5$	-167...+40	$\pm 2,5$
	+375...+1000	$\pm 0,004 \cdot t$	+333...+1200	$\pm 0,0075 \cdot t$	-200...-167	$\pm 0,015 \cdot t$
R, S	0...+1100	± 1	0...+600	$\pm 1,5$	---	---
	+1100...+1600	$\pm [1+0,003 \cdot (t-1100)]$	+600...+1600	$\pm 0,0025 \cdot t$	---	---
T	-40...+125	$\pm 0,5$	-40...+133	± 1	-67...+40	± 1
	+125...+350	$\pm 0,004 \cdot t$	+133...+350	$\pm 0,0075 \cdot t$	-200...-67	$\pm 0,015 \cdot t$

Note: t = temperature of measurement junction in °C.

The K type thermocouple probes supplied by Delta OHM have tolerance class 1 in the operating temperature range, that depends on the thermoelements diameter.



Response time for a 63% variation ($\tau_{0.63}$)

Response time τ s is the reaction time of the sensor to a temperature variation, with a variation of the measured signal to a given percentage (63%) of the variation.

Response times are referred to:

Immersion probes when into water at 100°C.

Contact probes when in contact with a metallic surface at 200°C.

Air probes at air temperature of 100°C.

At temperature above 400°C avoid violent impact or thermal shocks. The probe can be irreparably damaged.

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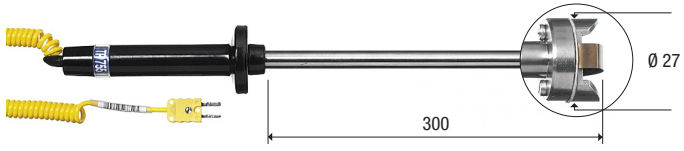
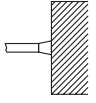
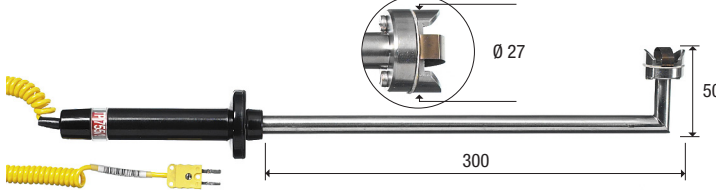
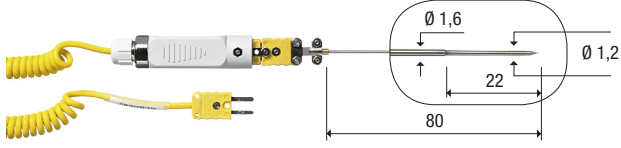

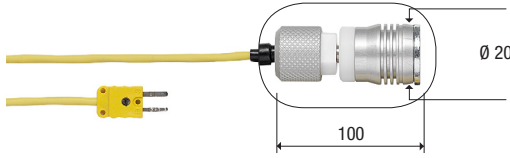
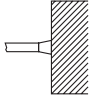
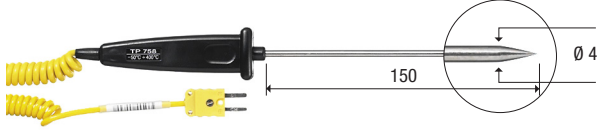
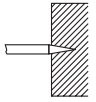
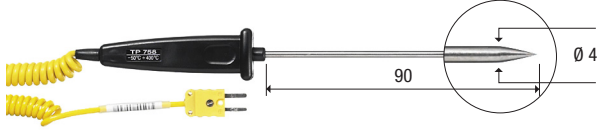
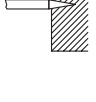

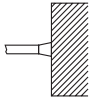
TYPE "K" (CHROMEL - ALUMEL) THERMOCOUPLE PROBES

CODE	°C max	τ s	DIMENSIONS	USE
TP 741	+800	2s		
TP 741/1	+400	2s		
TP 741/2	+800	2s		
TP 742	+800	2s		
TP 742/1	+400	2s		

TYPE "K" (CHROMEL - ALUMEL) THERMOCOUPLE PROBES

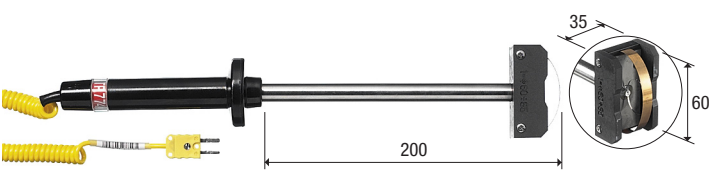
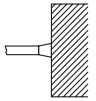
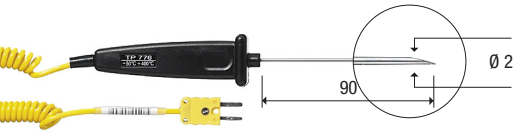
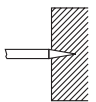
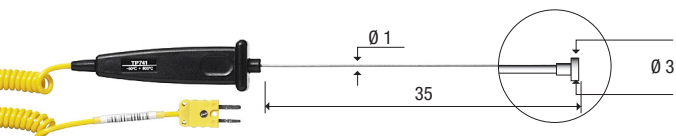
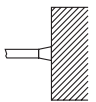
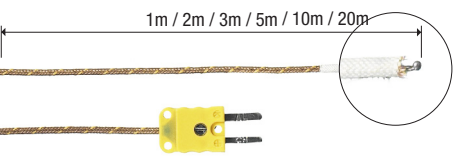
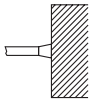
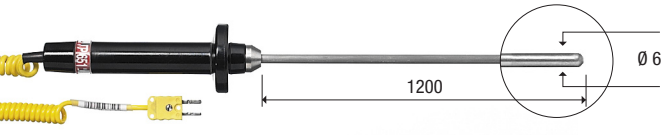
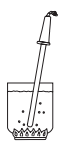
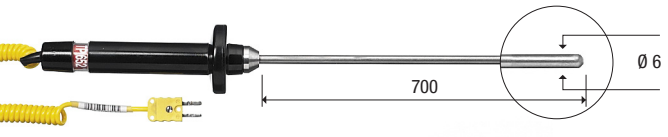

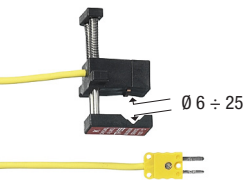
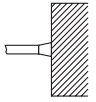
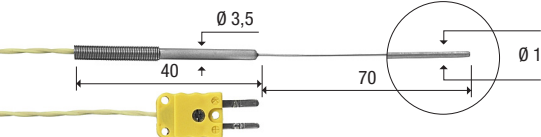
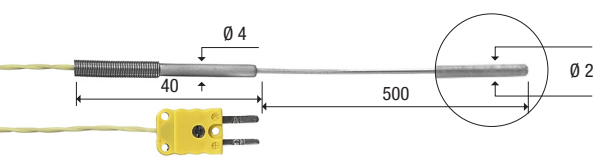
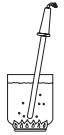
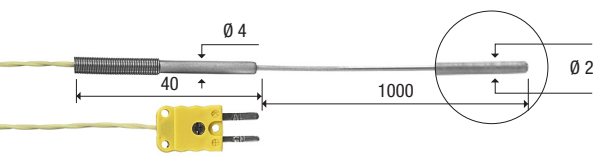
CODE	°C max	τ s	DIMENSIONS	USE
TP 742/2	+800	2s		
TP 743	+800	3s		
TP 744	+400	4s		
TP 745	+500	5s		
TP 746	+250	2s		
TP 750	-196 +1000	3s		
TP 750.0	-196 +800	3s		
TP 751	+200	2s		
TP 754	+500	2s		
TP 754/9	+500	2s		

TYPE "K" (CHROMEL - ALUMEL) THERMOCOUPLE PROBES

CODE	°C max	τ s	DIMENSIONS	USE
TP 755	+800	2s		
TP 755/9	+800	2s		
TP 756	+200	2s		
TP 757	+180	30s	MAGNETIC PROBE FOR CONTACT MEASURE ON MAGNETIC METALLIC SURFACES 	
TP 758	+400	4s		
TP 758.1	+400	4s		
TP 772	+400	3s		



TYPE "K" (CHROMEL - ALUMEL) THERMOCOUPLE PROBES

CODE	°C max	τ s	DIMENSIONS	USE
TP 774	+250	2s		
TP 776	+200	2s		
TP 777	+200	3s		
TP 647 TP 647/2 TP 647/3 TP 647/5 TP 647/10 TP647/20	+300 +300 +300 +300 +300 +300	2s 2s 2s 2s 2s 2s	For ACCREDIA calibration up to 300°C. 	
TP 651	+1200	6s		
TP 652	+1200	6s		
TP 655	+180	2s		
TP 656	+200	1s		
TP 656/1	+1000	1s		
TP 656/2	+1000	1s		

TYPE "K" (CHROMEL - ALUMEL) THERMOCOUPLE PROBES

CODE	°C max	τ s	DIMENSIONS	USE
TP 657/1	+100	5s		
TP 659	+400	3s		
TP 660	+400	4s		
TP 661	-60 +50	30s		
TP 662	+110	120s	<p style="text-align: center;">PROBE WITH VELCRO TAPE FOR MEASURES ON PIPES MAX 110 DIAM.</p>	
TP 663	+1050	150s		
CM CS	"K"			
PW	"K"		<p style="text-align: right;">Cable length = 2m, 5m, 10m, 15m, 20m</p>	

"T" TYPE THERMOCOUPLE PROBES WITH ISOLATED HOT JUNCTION

CODE	°C max	τ s	DIMENSIONS	USE
TP 32MT.11P	-40 +100	60s		
TP 32MT.12	-40 +100	60s		