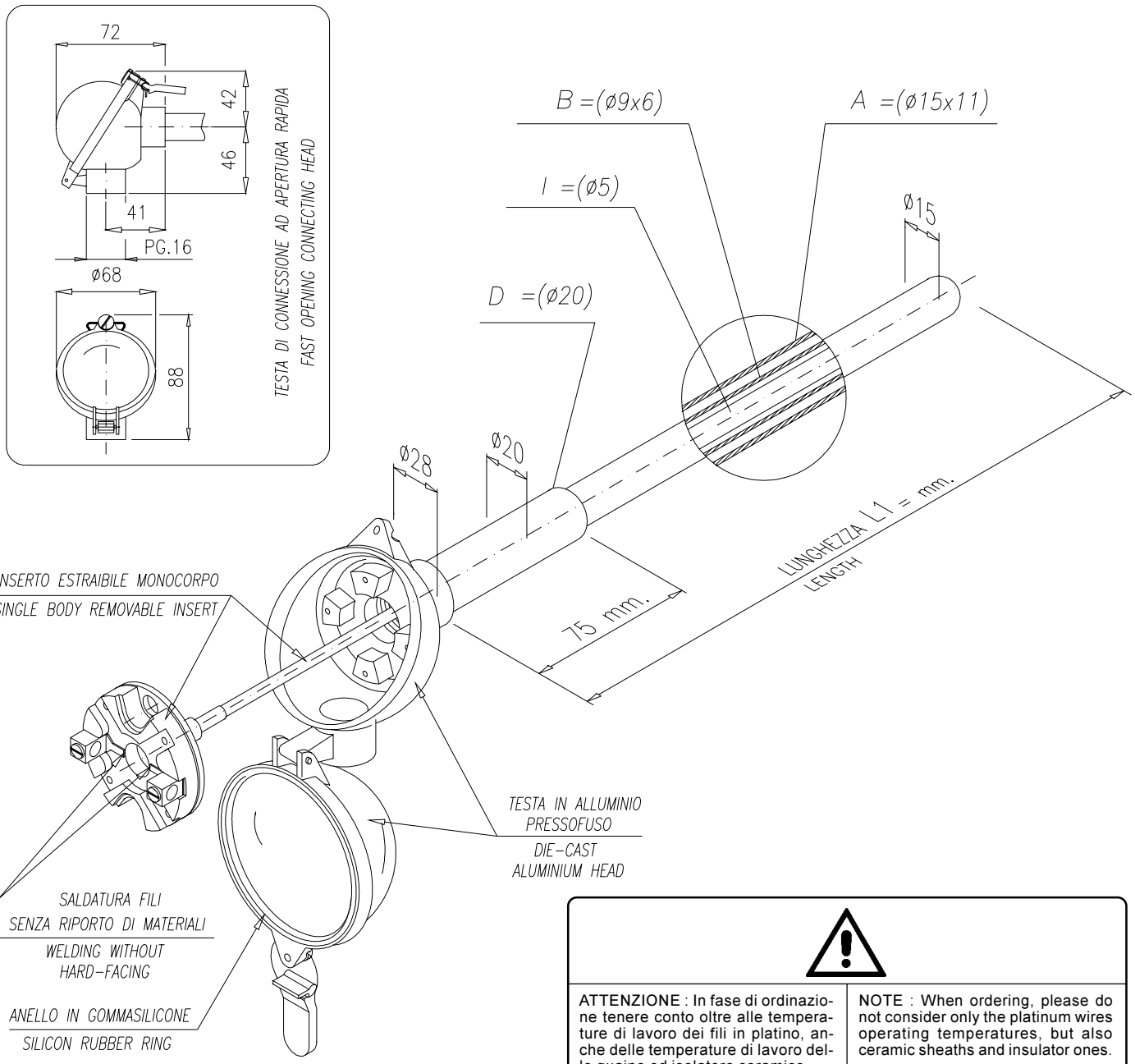
TERMOCOPPIA DOPPIA GUAINA PER ALTE TEMPERATURE CON TESTA DI CONNESSIONE TIPO “D”
HIGH TEMPERATURE THERMOCOUPLE WITH DOUBLE SHEATH. TYPE “D” CONNECTING HEAD



ATTENZIONE : In fase di ordinazione tenere conto oltre alle temperature di lavoro dei fili in platino, anche delle temperature di lavoro delle guaine ed isolatore ceramico.	NOTE : When ordering, please do not consider only the platinum wires operating temperatures, but also ceramic sheaths and insulator ones.

Materiale Ceramico tipo DIN VDE 0335 cod.610 (PYTHAGORAS) E’ il materiale a tenuta di gas più economico e può essere impiegato di norma fino a 1500°C in continuo. La sua resistenza contro i gas esenti da acido idrofluoridrico, è molto buona ; una percentuale di Allumina del 60% e un assorbimento inferiore allo 0.2%, danno al materiale una ottima stabilità dimensionale per guaine inserite orizzontalmente, nonchè un ottimo coefficente di TSR (resistenza shock termico).	***Ceramic material type DIN VDE 0335 cod.610 (PYTHAGORAS)*** It is the most cheap impervious material, and can be normally used continuously up to 1500°C. It has a very good resistance against gas free from Hidrofluoric acid. The 60% Al203 content and the absorption less than 0.2% give to this material a good dimensional stability, (referred to horizontally inserted sheaths), and a good thermal shock resistance (TSR rate).
Materiale Ceramico tipo DIN VDE 0335 cod.799 (ALSINT) Ad altissima refrattarietà permessa da un contenuto di Allumina pari al 99.7 (il resto è Mgo). Refrattarietà e stabilità termica fino a 1700°C, una buona resistenza agli shock termici grazie a un’alta conduttività termica; ottima resistenza elettrica e impermeabilità ai materiali policristallini, ai gas aggressivi come azoto o altri gas riducenti. Elevata resistenza a compressione e a flessione, discreta resistenza a trazione. Resistente agli acidi e agli alcali, alle radiazioni nucleari ai raggi X e ai raggi UV. Chimicamente inerte e non degasante in condizioni di vuoto. Durezza al livello del diamante.	***Ceramic material type DIN VDE 0335 cod.799 (ALSINT)*** Very high refractory material, due to 99.7 Al203 content (0.3 balance being MgO). Refractoriness and thermal stability up to 1700°C. Good thermal shock resistance due to high thermal conductivity. Very good electrical resistance and impermeableness to multicrystalline materials and to aggressive gas (Nitrogen and other reducing gas). Very good resistance to compressive and flexural strength, good to tensile stress. Resistant to acids/alkali, nuclear radiations, X-rays, UV-rays. Chemically inert and not degassing under vacuum state. Hardness at diamond grade.

Tolleranze secondo norme IEC 584.2 cl.2 (+/- 1.5°C oppure +/- 0.25%) (vale il maggiore tra i due valori).
Tolerances according to IEC 584.2 cl.2 (+/- 1.5°C or +/- 0.25%) (the highest value applies).

ZAMA SENSOR s.r.l. / DISEGNATORE : 544 / APPROVATO DA : 003 / DATA : 08/10/1998 / REVISIONE N° 00.01 DEL 09/12/1998

TIPO DI TERMOCOPPIA
THERMOCOUPLE TYPE

"**S**" (Pt Rh 10% - Pt)	**4**
"**R**" (Pt Rh 13% - Pt)	**5**
"**B**" (Pt Rh 30% - Pt Rh 6%) *	**6**

* Disponibile solo per ø0.50 mm.
Avalaible only for ø0.50 mm.

TIPO ELEMENTO
ELEMENT TYPE

1	SINGOLO ELEMENTO (2 FILI - WIRES) SINGLE ELEMENT
2	DOPPIO ELEMENTO (4 FILI - WIRES) DOUBLE ELEMENT

LUNGHEZZA (L1)
LENGTH (L1)

	L1 = mm.
03	150 mm.
04	200 mm.
05	250 mm.
06	300 mm.
07	350 mm.
08	400 mm.
09	450 mm.
10	500 mm.
11	550 mm.
12	600 mm.
13	650 mm.
14	700 mm.
15	750 mm.
16	800 mm.
17	850 mm.
18	900 mm.
19	950 mm.
20	1000 mm.
21	1050 mm.
22	1100 mm.
23	1150 mm.
24	1200 mm.
25	1250 mm.
26	1300 mm.
27	1350 mm.
28	1400 mm.
29	1450 mm.
30	1500 mm.
31	1550 mm.
32	1600 mm.
33	1650 mm.
34	1700 mm.
35	1750 mm.
36	1800 mm.
37	1850 mm.
38	1900 mm.
39	1950 mm.
40	2000 mm.

DIAMETRO FILI INSERTO
INSERT WIRES DIAMETER

25	ø 0.25 mm.
35	ø 0.35 mm.
50	ø 0.50 mm.

MATERIALE GUAINE ED ISOLATORE SECONDO DIN VDE 0335
SHEATHS AND INSULATOR MATERIAL CONFORM TO DIN VDE 0335 STANDARD

(**A**) GUAINA ESTERNA OUTSIDE SHEATH	610 1500°C	610 1500°C	799 1700°C
(**B**) GUAINA INTERNA INSIDE SHEATH	610 1500°C	799 1700°C	799 1700°C
(**I**) ISOLATORE INSULATOR	610 1500°C	799 1700°C	799 1700°C
	1	**3**	**7**

Cod. 2 3 7 . 0 .

TEMPERATURE MASSIME DI LAVORO CONSIGLIATE (°C)
ADVISED MAX. OPERATING TEMPERATURES (°C)

TIPO DI TERMOCOPPIA THERMOCOUPLE TYPE	USO CONTINUO (°C) CONTINUOUS USE (°C)			USO INTERMITTENTE (°C) INTERMITTENT USE (°C)		
	ø0.25	ø0.35	ø0.50	ø0.25	ø0.35	ø0.50
"**S**" (Pt Rh 10% - Pt)	1100	1300	1400	1190	1420	1650
"**R**" (Pt Rh 13% - Pt)	1100	1300	1400	1190	1420	1650
"**B**" (Pt Rh 30% - Pt Rh 6%)	—	—	1600	—	—	1770

OPZIONE CANOTTO (D)
ROD OPTION

C . 2 0 0 . .

MATERIALE CANOTTO
ROD MATERIAL

A	ACCIAIO AL CARBONIO ZINCATO GALVANIZED CARBON STEEL
I	ACCIAIO INOX AISI 310 STAINLESS STEEL AISI 310

100	L = 100 mm.
150	L = 150 mm.
200	L = 200 mm.
250	L = 250 mm.
300	L = 300 mm.
350	L = 350 mm.
400	L = 400 mm.
450	L = 450 mm.
500	L = 500 mm.
550	L = 550 mm.
600	L = 600 mm.
650	L = 650 mm.
700	L = 700 mm.
750	L = 750 mm.
800	L = 800 mm.
850	L = 850 mm.
900	L = 900 mm.
950	L = 950 mm.

SPORGENZA INTERNA MINIMO 40 mm.
INSIDE PROJECTION MIN. 40 mm.

SPORGENZA INTERNA IN MONTAGGIO ORIZZONTALE MAX. 180 mm.
INSIDE PROJECTION WITH HORIZONTAL ASSEMBLY MAX. 180 mm.

IL CANOTTO STANDARD E' PROPOSTO CON LUNGHEZZA 75 mm. IN ACCIAIO AL CARBONIO ZINCATO.
PER ALTRE LUNGHEZZE O MATERIALI DIVERSI, ORDINARE LA TERMOCOPPIA CON AGGIUNTA DELLA OPZIONE A FIANCO INDICATA.

STANDARD ROD : GALVANIZED CARBON STEEL, LENGTH 75 mm.
PLEASE ORDER THE THERMOCOUPLE ADDING THE SIDE-MENTIONED OPTION IN CASE OF DIFFERENT MATERIALS OR LENGTHS.

Esempio di ordinazione : **Cod. 2371.401.3520 + CI 200 150** Ordering code example : **Cod. 2371.401.3520 + CI 200 150**
Termocoppia tipo S con guaina esterna, guaina interna e isolatore in ceramica 610, singolo elemento, diametro fili 0.35 mm. e lunghezza L1 = 1000 mm. con opzione del canotto in acciaio inox AISI 310 L = 150 mm.
"S" type thermocouple with ceramic material code 610 outside sheath, inside sheath and insulator, single element, wires diameter 0.35 mm. L1 length : 1000 mm. - Option : stainless steel AISI 310 rod, length 150 mm.

ZAMA SENSOR s.r.l. / DISEGNATORE : 544 / APPROVATO DA : 003 / DATA : 08/10/1998 / REVISIONE N° 00.01 DEL 04/04/2001

CALIBRATION TABLE FOR THERMOCOUPLES TYPE B (Platinum-30% Rh / Platinum-6% Rh) ACCORDING TO IEC 584-1
TABELLA DI CALIBRAZIONE PER TERMOCOPPIE TIPO B (Platino-30% Rh / Platino-6% Rh) SECONDO NORMATIVA IEC 584-1

Thermometric voltage in absolute mV - Reference junction at 0°C

	0	1	2	3	4	5	6	7	8	9
400	0,787	0,791	0,795	0,799	0,803	0,807	0,811	0,815	0,819	0,824
410	0,828	0,832	0,836	0,840	0,844	0,849	0,853	0,857	0,861	0,866
420	0,870	0,874	0,878	0,883	0,887	0,891	0,896	0,900	0,904	0,909
430	0,913	0,917	0,922	0,926	0,930	0,935	0,939	0,944	0,948	0,953
440	0,957	0,961	0,966	0,970	0,975	0,979	0,984	0,988	0,993	0,997
450	1,002	1,007	1,011	1,016	1,020	1,025	1,030	1,034	1,039	1,043
460	1,048	1,053	1,057	1,062	1,067	1,071	1,076	1,081	1,086	1,090
470	1,095	1,100	1,105	1,109	1,114	1,119	1,124	1,129	1,133	1,138
480	1,143	1,148	1,153	1,158	1,163	1,167	1,172	1,177	1,182	1,187
490	1,192	1,197	1,202	1,207	1,212	1,217	1,222	1,227	1,232	1,237
500	1,242	1,247	1,252	1,257	1,262	1,267	1,272	1,277	1,282	1,288
510	1,293	1,298	1,303	1,308	1,313	1,318	1,324	1,329	1,334	1,339
520	1,344	1,350	1,355	1,360	1,365	1,371	1,376	1,381	1,387	1,392
530	1,397	1,402	1,408	1,413	1,418	1,424	1,429	1,435	1,440	1,445
540	1,451	1,456	1,462	1,467	1,472	1,478	1,483	1,489	1,494	1,500
550	1,505	1,511	1,516	1,522	1,527	1,533	1,539	1,544	1,550	1,555
560	1,561	1,566	1,572	1,578	1,583	1,589	1,595	1,600	1,606	1,612
570	1,617	1,623	1,629	1,634	1,640	1,646	1,652	1,657	1,663	1,669
580	1,675	1,680	1,686	1,692	1,698	1,704	1,709	1,715	1,721	1,727
590	1,733	1,739	1,745	1,750	1,756	1,762	1,768	1,774	1,780	1,786
600	1,792	1,798	1,804	1,810	1,816	1,822	1,828	1,834	1,840	1,846
610	1,852	1,858	1,864	1,870	1,876	1,882	1,888	1,894	1,901	1,907
620	1,913	1,919	1,925	1,931	1,937	1,944	1,950	1,956	1,962	1,968
630	1,975	1,981	1,987	1,993	1,999	2,006	2,012	2,018	2,025	2,031
640	2,037	2,043	2,050	2,056	2,062	2,069	2,075	2,082	2,088	2,094
650	2,101	2,107	2,113	2,120	2,126	2,133	2,139	2,146	2,152	2,158
660	2,165	2,171	2,178	2,184	2,191	2,197	2,204	2,210	2,217	2,224
670	2,230	2,237	2,243	2,250	2,256	2,263	2,270	2,276	2,283	2,289
680	2,296	2,303	2,309	2,316	2,323	2,329	2,336	2,343	2,350	2,356
690	2,363	2,370	2,376	2,383	2,390	2,397	2,403	2,410	2,417	2,424
700	2,431	2,437	2,444	2,451	2,458	2,465	2,472	2,479	2,485	2,492
710	2,499	2,506	2,513	2,520	2,527	2,534	2,541	2,548	2,555	2,562
720	2,569	2,576	2,583	2,590	2,597	2,604	2,611	2,618	2,625	2,632
730	2,639	2,646	2,653	2,660	2,667	2,674	2,681	2,688	2,696	2,703
740	2,710	2,717	2,724	2,731	2,738	2,746	2,753	2,760	2,767	2,775
750	2,782	2,789	2,796	2,803	2,811	2,818	2,825	2,833	2,840	2,847
760	2,854	2,862	2,869	2,876	2,884	2,891	2,898	2,906	2,913	2,921
770	2,928	2,935	2,943	2,950	2,958	2,965	2,973	2,980	2,987	2,995
780	3,002	3,010	3,017	3,025	3,032	3,040	3,047	3,055	3,062	3,070
790	3,078	3,085	3,093	3,100	3,108	3,116	3,123	3,131	3,138	3,146
800	3,154	3,161	3,169	3,177	3,184	3,192	3,200	3,207	3,215	3,223
810	3,230	3,238	3,246	3,254	3,261	3,269	3,277	3,285	3,292	3,300
820	3,308	3,316	3,324	3,331	3,339	3,347	3,355	3,363	3,371	3,379
830	3,386	3,394	3,402	3,410	3,418	3,426	3,434	3,442	3,450	3,458
840	3,466	3,474	3,482	3,490	3,498	3,506	3,514	3,522	3,530	3,538
850	3,546	3,554	3,562	3,570	3,578	3,586	3,594	3,602	3,610	3,618
860	3,626	3,634	3,643	3,651	3,659	3,667	3,675	3,683	3,692	3,700
870	3,708	3,716	3,724	3,732	3,741	3,749	3,757	3,765	3,774	3,782
880	3,790	3,798	3,807	3,815	3,823	3,832	3,840	3,848	3,857	3,865
890	3,873	3,882	3,890	3,898	3,907	3,915	3,923	3,932	3,940	3,949
900	3,957	3,965	3,974	3,982	3,991	3,999	4,008	4,016	4,024	4,033
910	4,041	4,050	4,058	4,067	4,075	4,084	4,093	4,101	4,110	4,118
920	4,127	4,135	4,144	4,152	4,161	4,170	4,178	4,187	4,195	4,204
930	4,213	4,221	4,230	4,239	4,247	4,256	4,265	4,273	4,282	4,291
940	4,299	4,308	4,317	4,326	4,334	4,343	4,352	4,360	4,369	4,378
950	4,387	4,396	4,404	4,413	4,422	4,431	4,440	4,448	4,457	4,466
960	4,475	4,484	4,493	4,501	4,510	4,519	4,528	4,537	4,546	4,555
970	4,564	4,573	4,582	4,591	4,599	4,608	4,617	4,626	4,635	4,644
980	4,653	4,662	4,671	4,680	4,689	4,698	4,707	4,716	4,725	4,734
990	4,743	4,753	4,762	4,771	4,780	4,789	4,798	4,807	4,816	4,825
1000	4,834	4,843	4,853	4,862	4,871	4,880	4,889	4,898	4,908	4,917
1010	4,926	4,935	4,944	4,954	4,963	4,972	4,981	4,990	5,000	5,009
1020	5,018	5,027	5,037	5,046	5,055	5,065	5,074	5,083	5,092	5,102
1030	5,111	5,120	5,130	5,139	5,148	5,158	5,167	5,176	5,186	5,195
1040	5,205	5,214	5,223	5,233	5,242	5,252	5,261	5,270	5,280	5,289
1050	5,299	5,308	5,318	5,327	5,337	5,346	5,356	5,365	5,375	5,384
1060	5,394	5,403	5,413	5,422	5,432	5,441	5,451	5,460	5,470	5,480
1070	5,489	5,499	5,508	5,518	5,528	5,537	5,547	5,556	5,566	5,576
1080	5,585	5,595	5,605	5,614	5,624	5,634	5,643	5,653	5,663	5,672
1090	5,682	5,692	5,702	5,711	5,721	5,731	5,740	5,750	5,760	5,770

Thermometric voltage in absolute mV - Reference junction at 0°C

	0	1	2	3	4	5	6	7	8	9
1100	5,780	5,789	5,799	5,809	5,819	5,828	5,838	5,848	5,858	5,868
1110	5,878	5,887	5,897	5,907	5,917	5,927	5,937	5,947	5,956	5,966
1120	5,976	5,986	5,996	6,006	6,016	6,026	6,036	6,046	6,055	6,065
1130	6,075	6,085	6,095	6,105	6,115	6,125	6,135	6,145	6,155	6,165
1140	6,175	6,185	6,195	6,205	6,215	6,225	6,235	6,245	6,256	6,266
1150	6,276	6,286	6,296	6,306	6,316	6,326	6,336	6,346	6,356	6,367
1160	6,377	6,387	6,397	6,407	6,417	6,427	6,438	6,448	6,458	6,468
1170	6,478	6,488	6,499	6,509	6,519	6,529	6,539	6,550	6,560	6,570
1180	6,580	6,591	6,601	6,611	6,621	6,632	6,642	6,652	6,663	6,673
1190	6,683	6,693	6,704	6,714	6,724	6,735	6,745	6,755	6,766	6,776
1200	6,786	6,797	6,807	6,818	6,828	6,838	6,849	6,859	6,869	6,880
1210	6,890	6,901	6,911	6,922	6,932	6,942	6,953	6,963	6,974	6,984
1220	6,995	7,005	7,016	7,026	7,037	7,047	7,058	7,068	7,079	7,089
1230	7,100	7,110	7,121	7,131	7,142	7,152	7,163	7,173	7,184	7,194
1240	7,205	7,216	7,226	7,237	7,247	7,258	7,269	7,279	7,290	7,300
1250	7,311	7,322	7,332	7,343	7,353	7,364	7,375	7,385	7,396	7,407
1260	7,417	7,428	7,439	7,449	7,460	7,471	7,482	7,492	7,503	7,514
1270	7,524	7,535	7,546	7,557	7,567	7,578	7,589	7,600	7,610	7,621
1280	7,632	7,643	7,653	7,664	7,675	7,686	7,697	7,707	7,718	7,729
1290	7,740	7,751	7,761	7,772	7,783	7,794	7,805	7,816	7,827	7,837
1300	7,848	7,859	7,870	7,881	7,892	7,903	7,914	7,924	7,935	7,946
1310	7,957	7,968	7,979	7,990	8,001	8,012	8,023	8,034	8,045	8,056
1320	8,066	8,077	8,088	8,099	8,110	8,121	8,132	8,143	8,154	8,165
1330	8,176	8,187	8,198	8,209	8,220	8,231	8,242	8,253	8,264	8,275
1340	8,286	8,298	8,309	8,320	8,331	8,342	8,353	8,364	8,375	8,386
1350	8,397	8,408	8,419	8,430	8,441	8,453	8,464	8,475	8,486	8,497
1360	8,508	8,519	8,530	8,542	8,553	8,564	8,575	8,586	8,597	8,608
1370	8,620	8,631	8,642	8,653	8,664	8,675	8,687	8,698	8,709	8,720
1380	8,731	8,743	8,754	8,765	8,776	8,787	8,799	8,810	8,821	8,832
1390	8,844	8,855	8,866	8,877	8,889	8,900	8,911	8,922	8,934	8,945
1400	8,956	8,967	8,979	8,990	9,001	9,013	9,024	9,035	9,047	9,058
1410	9,069	9,080	9,092	9,103	9,114	9,126	9,137	9,148	9,160	9,171
1420	9,182	9,194	9,205	9,216	9,228	9,239	9,251	9,262	9,273	9,285
1430	9,296	9,307	9,319	9,330	9,342	9,353	9,364	9,376	9,387	9,398
1440	9,410	9,421	9,433	9,444	9,456	9,467	9,478	9,490	9,501	9,513
1450	9,524	9,536	9,547	9,558	9,570	9,581	9,593	9,604	9,616	9,627
1460	9,639	9,650	9,662	9,673	9,684	9,696	9,707	9,719	9,730	9,742
1470	9,753	9,765	9,776	9,788	9,799	9,811	9,822	9,834	9,845	9,857
1480	9,868	9,880	9,891	9,903	9,914	9,926	9,937	9,949	9,961	9,972
1490	9,984	9,995	10,007	10,018	10,030	10,041	10,053	10,064	10,076	10,088
1500	10,099	10,111	10,122	10,134	10,145	10,157	10,168	10,180	10,192	10,203
1510	10,215	10,226	10,238	10,249	10,261	10,273	10,284	10,296	10,307	10,319
1520	10,331	10,342	10,354	10,365	10,377	10,389	10,400	10,412	10,423	10,435
1530	10,447	10,458	10,470	10,482	10,493	10,505	10,516	10,528	10,540	10,551
1540	10,563	10,575	10,586	10,598	10,609	10,621	10,633	10,644	10,656	10,668
1550	10,679	10,691	10,703	10,714	10,726	10,738	10,749	10,761	10,773	10,784
1560	10,796	10,808	10,819	10,831	10,843	10,854	10,866	10,877	10,889	10,901
1570	10,913	10,924	10,936	10,948	10,959	10,971	10,983	10,994	11,006	11,018
1580	11,029	11,041	11,053	11,064	11,076	11,088	11,099	11,111	11,123	11,134
1590	11,146	11,158	11,169	11,181	11,193	11,205	11,216	11,228	11,240	11,251
1600	11,263	11,275	11,286	11,298	11,310	11,321	11,333	11,345	11,357	11,368
1610	11,380	11,392	11,403	11,415	11,427	11,438	11,450	11,462	11,474	11,485
1620	11,497	11,509	11,520	11,532	11,544	11,555	11,567	11,579	11,591	11,602
1630	11,614	11,626	11,637	11,649	11,661	11,673	11,684	11,696	11,708	11,719
1640	11,731	11,743	11,754	11,766	11,778	11,790	11,801	11,813	11,825	11,836
1650	11,848	11,860	11,871	11,883	11,895	11,907	11,918	11,930	11,942	11,953
1660	11,965	11,977	11,988	12,000	12,012	12,024	12,035	12,047	12,059	12,070
1670	12,082	12,094	12,105	12,117	12,129	12,141	12,152	12,164	12,176	12,187
1680	12,199	12,211	12,222	12,234	12,246	12,257	12,269	12,281	12,292	12,304
1690	12,316	12,327	12,339	12,351	12,363	12,374	12,386	12,398	12,409	12,421
1700	12,433	12,444	12,456	12,468	12,479	12,491	12,503	12,514	12,526	12,538
1710	12,549	12,561	12,572	12,584	12,596	12,607	12,619	12,631	12,642	12,654
1720	12,666	12,677	12,689	12,701	12,712	12,724	12,736	12,747	12,759	12,770
1730	12,782	12,794	12,805	12,817	12,829	12,840	12,852	12,863	12,875	12,887
1740	12,898	12,910	12,921	12,933	12,945	12,956	12,968	12,980	12,991	13,003
1750	13,014	13,026	13,037	13,049	13,061	13,072	13,084	13,095	13,107	13,119
1760	13,130	13,142	13,153	13,165	13,176	13,188	13,200	13,211	13,223	13,234
1770	13,246	13,257	13,269	13,280	13,292	13,304	13,315	13,327	13,338	13,350
1780	13,361	13,373	13,384	13,396	13,407	13,419	13,430	13,442	13,453	13,465
1790	13,476	13,488	13,499	13,511	13,522	13,534	13,545	13,557	13,568	13,580

CALIBRATION TABLE FOR THERMOCOUPLES TYPE S (Platinum- 10% Rh / Platinum) ACCORDING TO IEC 584-1

TABELLA DI CALIBRAZIONE PER TERMOCOPPIE TIPO S (Platino - 10% Rh / Platino) SECONDO NORMATIVA IEC 584-1

Thermometric voltage in absolute mV - Reference junction at 0°C

	0	1	2	3	4	5	6	7	8	9
300	2,323	2,332	2,341	2,350	2,360	2,369	2,378	2,387	2,396	2,405
310	2,415	2,424	2,433	2,442	2,451	2,461	2,470	2,479	2,488	2,497
320	2,507	2,516	2,525	2,534	2,544	2,553	2,562	2,571	2,581	2,590
330	2,599	2,609	2,618	2,627	2,636	2,646	2,655	2,664	2,674	2,683
340	2,692	2,702	2,711	2,720	2,730	2,739	2,748	2,758	2,767	2,776
350	2,786	2,795	2,805	2,814	2,823	2,833	2,842	2,851	2,861	2,870
360	2,880	2,889	2,899	2,908	2,917	2,927	2,936	2,946	2,955	2,965
370	2,974	2,983	2,993	3,002	3,012	3,021	3,031	3,040	3,050	3,059
380	3,069	3,078	3,088	3,097	3,107	3,116	3,126	3,135	3,145	3,154
390	3,164	3,173	3,183	3,192	3,202	3,212	3,221	3,231	3,240	3,250
400	3,259	3,269	3,279	3,288	3,298	3,307	3,317	3,326	3,336	3,346
410	3,355	3,365	3,374	3,384	3,394	3,403	3,413	3,423	3,432	3,442
420	3,451	3,461	3,471	3,480	3,490	3,500	3,509	3,519	3,529	3,538
430	3,548	3,558	3,567	3,577	3,587	3,596	3,606	3,616	3,626	3,635
440	3,645	3,655	3,664	3,674	3,684	3,694	3,703	3,713	3,723	3,732
450	3,742	3,752	3,762	3,771	3,781	3,791	3,801	3,810	3,820	3,830
460	3,840	3,850	3,859	3,869	3,879	3,889	3,898	3,908	3,918	3,928
470	3,938	3,947	3,957	3,967	3,977	3,987	3,997	4,006	4,016	4,026
480	4,036	4,046	4,056	4,065	4,075	4,085	4,095	4,105	4,115	4,125
490	4,134	4,144	4,154	4,164	4,174	4,184	4,194	4,204	4,213	4,223
500	4,233	4,243	4,253	4,263	4,273	4,283	4,293	4,303	4,313	4,323
510	4,332	4,342	4,352	4,362	4,372	4,382	4,392	4,402	4,412	4,422
520	4,432	4,442	4,452	4,462	4,472	4,482	4,492	4,502	4,512	4,522
530	4,532	4,542	4,552	4,562	4,572	4,582	4,592	4,602	4,612	4,622
540	4,632	4,642	4,652	4,662	4,672	4,682	4,692	4,702	4,712	4,722
550	4,732	4,742	4,752	4,762	4,772	4,782	4,793	4,803	4,813	4,823
560	4,833	4,843	4,853	4,863	4,873	4,883	4,893	4,904	4,914	4,924
570	4,934	4,944	4,954	4,964	4,974	4,984	4,995	5,005	5,015	5,025
580	5,035	5,045	5,055	5,066	5,076	5,086	5,096	5,106	5,116	5,127
590	5,137	5,147	5,157	5,167	5,178	5,188	5,198	5,208	5,218	5,228
600	5,239	5,249	5,259	5,269	5,280	5,290	5,300	5,310	5,320	5,331
610	5,341	5,351	5,361	5,372	5,382	5,392	5,402	5,413	5,423	5,433
620	5,443	5,454	5,464	5,474	5,485	5,495	5,505	5,515	5,526	5,536
630	5,546	5,557	5,567	5,577	5,588	5,598	5,608	5,618	5,629	5,639
640	5,649	5,660	5,670	5,680	5,691	5,701	5,712	5,722	5,732	5,743
650	5,753	5,763	5,774	5,784	5,794	5,805	5,815	5,826	5,836	5,846
660	5,857	5,867	5,878	5,888	5,898	5,909	5,919	5,930	5,940	5,950
670	5,961	5,971	5,982	5,992	6,003	6,013	6,024	6,034	6,044	6,055
680	6,065	6,076	6,086	6,097	6,107	6,118	6,128	6,139	6,149	6,160
690	6,170	6,181	6,191	6,202	6,212	6,223	6,233	6,244	6,254	6,265
700	6,275	6,286	6,296	6,307	6,317	6,328	6,338	6,349	6,360	6,370
710	6,381	6,391	6,402	6,412	6,423	6,434	6,444	6,455	6,465	6,476
720	6,486	6,497	6,508	6,518	6,529	6,539	6,550	6,561	6,571	6,582
730	6,593	6,603	6,614	6,624	6,635	6,646	6,656	6,667	6,678	6,688
740	6,699	6,710	6,720	6,731	6,742	6,752	6,763	6,774	6,784	6,795
750	6,806	6,817	6,827	6,838	6,849	6,859	6,870	6,881	6,892	6,902
760	6,913	6,924	6,934	6,945	6,956	6,967	6,977	6,988	6,999	7,010
770	7,020	7,031	7,042	7,053	7,064	7,074	7,085	7,096	7,107	7,117
780	7,128	7,139	7,150	7,161	7,172	7,182	7,193	7,204	7,215	7,226
790	7,236	7,247	7,258	7,269	7,280	7,291	7,302	7,312	7,323	7,334
800	7,345	7,356	7,367	7,378	7,388	7,399	7,410	7,421	7,432	7,443
810	7,454	7,465	7,476	7,487	7,497	7,508	7,519	7,530	7,541	7,552
820	7,563	7,574	7,585	7,596	7,607	7,618	7,629	7,640	7,651	7,662
830	7,673	7,684	7,695	7,706	7,717	7,728	7,739	7,750	7,761	7,772
840	7,783	7,794	7,805	7,816	7,827	7,838	7,849	7,860	7,871	7,882
850	7,893	7,904	7,915	7,926	7,937	7,948	7,959	7,970	7,981	7,992
860	8,003	8,014	8,026	8,037	8,048	8,059	8,070	8,081	8,092	8,103
870	8,114	8,125	8,137	8,148	8,159	8,170	8,181	8,192	8,203	8,214
880	8,226	8,237	8,248	8,259	8,270	8,281	8,293	8,304	8,315	8,326
890	8,337	8,348	8,360	8,371	8,382	8,393	8,404	8,416	8,427	8,438
900	8,449	8,460	8,472	8,483	8,494	8,505	8,517	8,528	8,539	8,550
910	8,562	8,573	8,584	8,595	8,607	8,618	8,629	8,640	8,652	8,663
920	8,674	8,685	8,697	8,708	8,719	8,731	8,742	8,753	8,765	8,776
930	8,787	8,798	8,810	8,821	8,832	8,844	8,855	8,866	8,878	8,889
940	8,900	8,912	8,923	8,935	8,946	8,957	8,969	8,980	8,991	9,003
950	9,014	9,025	9,037	9,048	9,060	9,071	9,082	9,094	9,105	9,117
960	9,128	9,139	9,151	9,162	9,174	9,185	9,197	9,208	9,219	9,231
970	9,242	9,254	9,265	9,277	9,288	9,300	9,311	9,323	9,334	9,345
980	9,357	9,368	9,380	9,391	9,403	9,414	9,426	9,437	9,449	9,460
990	9,472	9,483	9,495	9,506	9,518	9,529	9,541	9,552	9,564	9,576

Thermometric voltage in absolute mV - Reference junction at 0°C

	0	1	2	3	4	5	6	7	8	9
1000	9,587	9,599	9,610	9,622	9,633	9,645	9,656	9,668	9,680	9,691
1010	9,703	9,714	9,726	9,737	9,749	9,761	9,772	9,784	9,795	9,807
1020	9,819	9,830	9,842	9,853	9,865	9,877	9,888	9,900	9,911	9,923
1030	9,935	9,946	9,958	9,970	9,981	9,993	10,005	10,016	10,028	10,040
1040	10,051	10,063	10,075	10,086	10,098	10,110	10,121	10,133	10,145	10,156
1050	10,168	10,180	10,191	10,203	10,215	10,227	10,238	10,250	10,262	10,273
1060	10,285	10,297	10,309	10,320	10,332	10,344	10,356	10,367	10,379	10,391
1070	10,403	10,414	10,426	10,438	10,450	10,461	10,473	10,485	10,497	10,509
1080	10,520	10,532	10,544	10,556	10,567	10,579	10,591	10,603	10,615	10,626
1090	10,638	10,650	10,662	10,674	10,686	10,697	10,709	10,721	10,733	10,745
1100	10,757	10,768	10,780	10,792	10,804	10,816	10,828	10,839	10,851	10,863
1110	10,875	10,887	10,899	10,911	10,922	10,934	10,946	10,958	10,970	10,982
1120	10,994	11,006	11,017	11,029	11,041	11,053	11,065	11,077	11,089	11,101
1130	11,113	11,125	11,136	11,148	11,160	11,172	11,184	11,196	11,208	11,220
1140	11,232	11,244	11,256	11,268	11,280	11,291	11,303	11,315	11,327	11,339
1150	11,351	11,363	11,375	11,387	11,399	11,411	11,423	11,435	11,447	11,459
1160	11,471	11,483	11,495	11,507	11,519	11,531	11,542	11,554	11,566	11,578
1170	11,590	11,602	11,614	11,626	11,638	11,650	11,662	11,674	11,686	11,698
1180	11,710	11,722	11,734	11,746	11,758	11,770	11,782	11,794	11,806	11,818
1190	11,830	11,842	11,854	11,866	11,878	11,890	11,902	11,914	11,926	11,939
1200	11,951	11,963	11,975	11,987	11,999	12,011	12,023	12,035	12,047	12,059
1210	12,071	12,083	12,095	12,107	12,119	12,131	12,143	12,155	12,167	12,179
1220	12,191	12,203	12,216	12,228	12,240	12,252	12,264	12,276	12,288	12,300
1230	12,312	12,324	12,336	12,348	12,360	12,372	12,384	12,397	12,409	12,421
1240	12,433	12,445	12,457	12,469	12,481	12,493	12,505	12,517	12,529	12,542
1250	12,554	12,566	12,578	12,590	12,602	12,614	12,626	12,638	12,650	12,662
1260	12,675	12,687	12,699	12,711	12,723	12,735	12,747	12,759	12,771	12,783
1270	12,796	12,808	12,820	12,832	12,844	12,856	12,868	12,880	12,892	12,905
1280	12,917	12,929	12,941	12,953	12,965	12,977	12,989	13,001	13,014	13,026
1290	13,038	13,050	13,062	13,074	13,086	13,098	13,111	13,123	13,135	13,147
1300	13,159	13,171	13,183	13,195	13,208	13,220	13,232	13,244	13,256	13,268
1310	13,280	13,292	13,305	13,317	13,329	13,341	13,353	13,365	13,377	13,390
1320	13,402	13,414	13,426	13,438	13,450	13,462	13,474	13,487	13,499	13,511
1330	13,523	13,535	13,547	13,559	13,572	13,584	13,596	13,608	13,620	13,632
1340	13,644	13,657	13,669	13,681	13,693	13,705	13,717	13,729	13,742	13,754
1350	13,766	13,778	13,790	13,802	13,814	13,826	13,839	13,851	13,863	13,875
1360	13,887	13,899	13,911	13,924	13,936	13,948	13,960	13,972	13,984	13,996
1370	14,009	14,021	14,033	14,045	14,057	14,069	14,081	14,094	14,106	14,118
1380	14,130	14,142	14,154	14,166	14,178	14,191	14,203	14,215	14,227	14,239
1390	14,251	14,263	14,276	14,288	14,300	14,312	14,324	14,336	14,348	14,360
1400	14,373	14,385	14,397	14,409	14,421	14,433	14,445	14,457	14,470	14,482
1410	14,494	14,506	14,518	14,530	14,542	14,554	14,567	14,579	14,591	14,603
1420	14,615	14,627	14,639	14,651	14,664	14,676	14,688	14,700	14,712	14,724
1430	14,736	14,748	14,760	14,773	14,785	14,797	14,809	14,821	14,833	14,845
1440	14,857	14,869	14,881	14,894	14,906	14,918	14,930	14,942	14,954	14,966
1450	14,978	14,990	15,002	15,015	15,027	15,039	15,051	15,063	15,075	15,087
1460	15,099	15,111	15,123	15,135	15,148	15,160	15,172	15,184	15,196	15,208
1470	15,220	15,232	15,244	15,256	15,268	15,280	15,292	15,304	15,317	15,329
1480	15,341	15,353	15,365	15,377	15,389	15,401	15,413	15,425	15,437	15,449
1490	15,461	15,473	15,485	15,497	15,509	15,521	15,534	15,546	15,558	15,570
1500	15,582	15,594	15,606	15,618	15,630	15,642	15,654	15,666	15,678	15,690
1510	15,702	15,714	15,726	15,738	15,750	15,762	15,774	15,786	15,798	15,810
1520	15,822	15,834	15,846	15,858	15,870	15,882	15,894	15,906	15,918	15,930
1530	15,942	15,954	15,966	15,978	15,990	16,002	16,014	16,026	16,038	16,050
1540	16,062	16,074	16,086	16,098	16,110	16,122	16,134	16,146	16,158	16,170
1550	16,182	16,194	16,205	16,217	16,229	16,241	16,253	16,265	16,277	16,289
1560	16,301	16,313	16,325	16,337	16,349	16,361	16,373	16,385	16,396	16,408
1570	16,420	16,432	16,444	16,456	16,468	16,480	16,492	16,504	16,516	16,527
1580	16,539	16,551	16,563	16,575	16,587	16,599	16,611	16,623	16,634	16,646
1590	16,658	16,670	16,682	16,694	16,706	16,718	16,729	16,741	16,753	16,765
1600	16,777	16,789	16,801	16,812	16,824	16,836	16,848	16,860	16,872	16,883
1610	16,895	16,907	16,919	16,931	16,943	16,954	16,966	16,978	16,990	17,002
1620	17,013	17,025	17,037	17,049	17,061	17,072	17,084	17,096	17,108	17,120
1630	17,131	17,143	17,155	17,167	17,178	17,190	17,202	17,214	17,225	17,237
1640	17,249	17,261	17,272	17,284	17,296	17,308	17,319	17,331	17,343	17,355
1650	17,366	17,378	17,390	17,401	17,413	17,425	17,437	17,448	17,460	17,472
1660	17,483	17,495	17,507	17,518	17,530	17,542	17,553	17,565	17,577	17,588
1670	17,600	17,612	17,623	17,635	17,647	17,658	17,670	17,682	17,693	17,705