



**Phoenix<sup>TM</sup>**  
Phoenix Temperature Measurement

# TS27 Series

Thermal barrier



Datasheet

*Where experience counts :*





## TS27 Thermal Barriers

TS27 thermal barriers are normally engineered for specific customer applications where there is a requirement for a system to operate in a high temperature process where clearance inside the furnace is limited.

The thermal barrier keeps the data logger at a safe operating temperature by using evaporative water technology. Protected by a high operating temperature alloy steel, microporous insulation layers encase a water jacket which in turn surrounds the data logger. The ratio of insulation to the volume of water in these barriers has to be carefully calculated to optimize the barrier performance given the limitations of the heat treatment process.

As evaporative technology is used in these barriers, they are generally not used in processes where a controlled atmosphere (nitrogen, carburizing, etc.), or a vacuum is used.

Typical processes include: steel heat treatment, ceramic tableware decorating, aluminum reheat, etc.



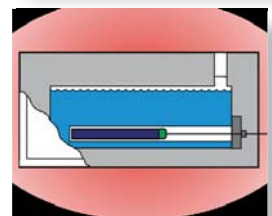
Standard TS27 range performance:

Type	TS27-080-1	TS27-165-1	TS27-171-1	TS27-240-3	TS27-310-1	TS27-400-1
932°F (500°C)/ h	3.0	11.0				
1112°F (600°C)/ h	2.2	9.0	17.5	25.0	39.0	75.0
1292°F (700°C)/ h	1.8	8.3			32.0	60.0
1472°F (800°C)/ h	1.3	6.0	11.0	15.3	24.0	50.0
1652°F (900°C)/ h				13.1	21.0	
1832°F(1000°C)/ h					17.0	30.0
Height / " / mm	3.2 / 80	6.5 / 165	6.75 / 171	9.44 / 240	12.2 / 310	15.75 / 400
Width / " / mm	10.8 / 275	13.78 / 350	17.3 / 440	14.7 / 374	15.7 / 400	19.3 / 490
Length / " / mm	17.7 / 450	18.1 / 459	24.8 / 630	18.9 / 480	19.7 / 500	26.0 / 660
Weight / lb / kg	23.4 / 31.0 / 10.6 / 13.9	41.5 / 61.8 / 18.8 / 28.0	62.0 / 81.5 / 28.3 / 37.0	57.3 / 86.2 / 26.0 / 39.1	79.4 / 113.5 / 36.0 / 51.5	145.5 / 231.5 / 66 / 105

10 and 20 channel versions available.



Evaporation technology combined with high efficiency insulation for ultimate size / performance ratio.



High temperature materials and highest quality workmanship!



Need a thermal barrier to suit your application? Tell us your requirements and if it's possible we'll design and manufacture it for you! We are constantly developing and looking forward to any new challenge.

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