

THERMOCOUPLE



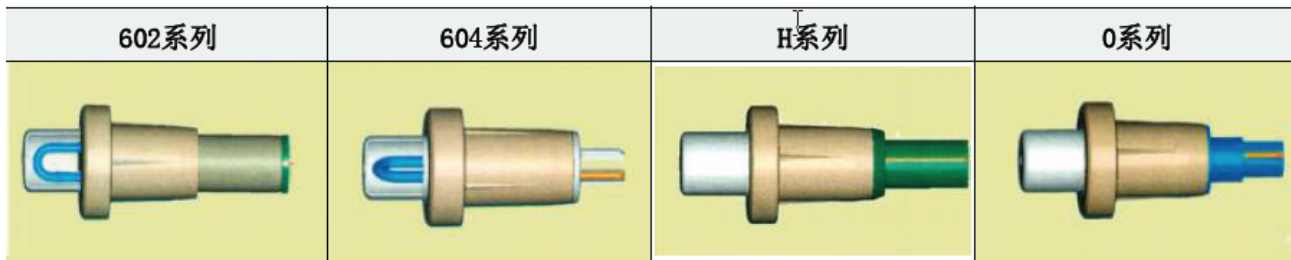
In the process of metalsmelting and melting (converter, furnace), it is necessary to control the change of metal melt temperature. Fast thermocouple is a fast and accurate detection sensor to determine the temperature of metal melt. The fast thermocouple series produced by our factory is to absorb the advantages of similar products at home and abroad, listen to customers' opinions, through continuous improvement. This series of products can not only meet the temperature measurement requirements of different occasions in the production of metal melt, but also adapt to the user from the benefit, quality, operation and other different perspectives of a variety of choices.

金属冶炼熔融（转炉、电炉）过程中，需要控制金属熔体温度的变化。快速热电偶是快速、准确测定金属熔体温度的检测传感器。本厂生产的快速热电偶系列是在汲取国内外同类产品的长处，广泛听取客户意见，经过持续改进而成的。该系列产品不仅能够满足金属熔体生产中不同场合的温度测量要求，而且还能适应用户从效益、质量、操作等不同角度的多种选择。

Working principle

The temperature measurement works on the principle of thermoelectric effect. Two dissimilar metal wires are formed into a conducting loop with two junctions. One junction in contact with the molten steel is called a hot junction (working junction). The other in connection with a secondary instrument is called a cold junction (reference junction). When a temperature difference exists between the two junctions, a thermoelectricity will occur accordingly in the loop. In accordance with the magnitude of the thermocouple the molten steel temperature can be determined.

测温原理是基于金属的热电效应，由两根不同的金属导线组成回路，构成热电偶。它的两个接触点：一个接触钢水称热端（工作端）；另一个连接二次仪表叫冷端（参考端）。当热端和冷端存在温差时，组成的回路中就产生相应的热电动势，根据其势值大小可以确定钢水的温度。



Main technical data

Protective tube	Outside diameter	Inside diameter	length	Material
防溅管 Non-splash tube	Φ30	Φ18.4	150、300可根据客户需求定制	硅酸铝纤维
	Φ42	Φ18.4	150、300可根据客户需求定制	Al ₂ (SiO ₃) ₃

Operation

Select the proper length of a protective paper tube and an applicable test lance in accordance with the measured process and the measuring range. The fast thermocouple is installed on the test gun. When the digital display instrument preparation test light is on, it indicates good contact, and the measurement can be made. Fast thermocouple inserted below the molten metal slag layer is 100-300mm is appropriate; Measurement should be: fast, voltage diode, accurate, when the display instrument results, should immediately lit the gun. The fast thermocouple in the molten steel should not exceed 6 seconds for fear that the test lance should be burnt out

使用方法

- 根据测量的对象和范围,选择适当保护纸管长度及适用的测试枪。
- 把快速热电偶装在测试枪上,当数显仪表预备测试灯亮时,表明接触良好,方可进行测量。快速热电偶插入熔融金属渣层下方为100-300mm为宜;测量时要做到:快、稳压二极管、准,当显示仪表得到结果后,应立即提枪。
- 快速热电偶在钢水中浸渍时间不得超过6s,否则易烧毁测试枪。