HIRDA-Kiln-K rotary kiln shell

Infrared thermal imaging online temperature detection and analysis system

Technical Specifications

Product Description

HIRDA-Kiln-K rotary kiln shell infrared thermal imaging online temperature detection and analysis system is a high-tech equipment specially used to detect the temperature of rotary kiln shell, the system is composed of infrared thermal imaging core, stainless steel high-temperature resistant air cooling shield, electric control box, algorithm server and intelligent temperature measurement software.

A number of high-resolution infrared thermal imaging equipment are reasonably arranged according to the length of the kiln body to achieve comprehensive coverage of the kiln body; In the process of kiln rotation, the infrared heat map of the rotating kiln body can be automatically spliced to form an infrared expansion map of the rotary kiln shell, and once an abnormal temperature point is found, it can be accurately located and alarmed. Through long-term data accumulation, a model of the temperature of the rotary kiln shell and the service life of the internal refractory materials is established, so as to give early warning and remind the staff to overhaul in time and prevent problems.

In order to detect the temperature of the rotary kiln shell for a long time, the system selects a high-temperature resistant stainless steel air-cooled protective cover, which can pass into the cooling air to ensure that the infrared sensor in the shield can work at a suitable temperature and can work stably for a long time in the environment of 80~200°C.

Fig.1. Product and installation diagram of HIRDA-Kiln-K rotary kiln shell infrared thermal imaging online temperature detection and analysis system

Fig.2. Block diagram of the HIRDA-Kiln-K rotary kiln shell infrared thermal imaging online temperature detection and analysis system

System features:

High-temperature resistant design, withstanding up to 200°C ambient temperature

High degree of protection up to IP66

The window is automatically blown, and there is no need to manually clean the window regularly

Full-screen real-time temperature measurement, wide coverage;

It does not depend on the system platform, and can directly log in to the IP page to access the image and configuration, and can directly output the alarm signal to the PLC or alarm;

Support onvif protocol, can access mainstream NVR;

The temperature data can be connected to the LED screen and PLC;

Motorized/autofocus, focus operation through software at any time;

The temperature measurement range can be customized, and the maximum support is -40°C to 2000°C;

The temperature measurement accuracy is better than ±2°C or ±2%;

It supports modbus protocol and can be connected with the DCS system for temperature data transmission

High-temperature infrared thermal imaging thermometer

The main technical indicators of PFC320-NS high-temperature infrared thermal imaging thermometer are as follows.

Image resolution	384×288	640×480
Lens options	4、8、13	8、19、25
Wavelength range	8～14μm	
Thermal Sensitivity (NETD)	≤50mk@30℃	
Frame rate	25Hz	
Focusing	Electric/automatic	
Delay	≤200ms	
Image algorithms	Gamma correction and enhancement algorithms	
Temperature measurement accuracy	±2℃ or ±2%	
Temperature measurement range	-20℃～350℃	
data type	H264, H265, 16Bit raw temperature data	
Network standards	Gigabit LAN/Adaptive 10M/100M/1000M	
Protocol support	IPv4/IPv6、TCP、UDP、NTP、HTTP、RTSP、RTP、ICMP、WebSocket、ONVIF	
Temperature output	Support analog 4--20ma, RS485	
external trigger	Support RS485 level, TTL level	
Ingress protection	IP66	
size	Φ126mm×351mm	
Cooling method	Water is air-cooled	
Installation:	Equipped with a gimbal stand	
weight	≤8Kg	
Operating temperature	-20～200℃	