

IR-Camera for Rotary Kiln

Model number:RB-TemTV-L

The RB-TemTV-L Infrared Camera for Rotary Kiln is equipped with a probe that can be directly inserted into the heating furnace, enabling continuous real-time monitoring of the furnace's heated workpiece status and precise temperature measurement from the centralised control room. Users can adjust combustion parameters based on temperature data to ensure that the workpiece reaches the rated temperature while optimising energy efficiency. The system supports simultaneous temperature monitoring of multiple points or zones, including furnace walls and workpieces, over a wide area. Users can define temperature measurement zones and set hazardous temperature thresholds. If the measured temperature exceeds the threshold, the system triggers alarms through visual and video notifications and archives temperature data for further analysis. The high-temperature probes feature air and water cooling mechanisms, ensuring stable and maintenance-free operation in furnaces with temperatures up to 1800°C.



Product Features

- A high-precision short-wave infrared thermographic temperature measurement sensor specifically designed for high-temperature furnace applications.
- Wide field of view 85°.
- Can be inserted into the furnace to shoot in harsh high temperature environment.
- Camera can be automatically withdrawn from the furnace in case of over temperature, low air pressure, power failure, etc.
- Induction wavelength: 8μm-14μm.
- Temperature range: 150°C~1800°C.
- Temperature measurement accuracy: 1%
- Resolution: 640*480.

Technical Specification

Camera shot	
Lens length	920mm or 787mm
Viewing angle	Direct view 0°
Angular field of view	HxVxD 65°, 56°, 85°
Induction wavelength	8μm-14μm.
Focus and Iris	Manually adjustable

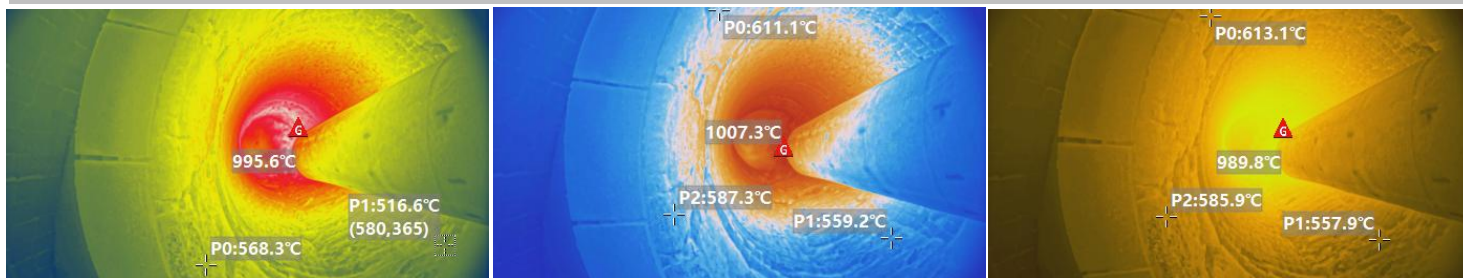
Conditions of use	
Heat-resistant	Up to 2000°C
Cooling system	Compressed air and water cooling
Transmission device	Pneumatic Rodless Cylinder
Power supply	220VAC/50Hz

Compressed air requirements	
Air pressure	≥0.5MPa
Air flow rate	≥30m³/h
Air temperature	<35°C
Air mass	Clean air free of dust, oil and water

Cooling water requirements	
Water inlet pressure	≥0.3MPa
Water flow rate	≥1m³ /h

Infrared camera specifications	
Induction wavelength: 8μm-14μm.	
Resolution: 640*480.	
30fps, can output real-time image.	
Support wide dynamic range up to 120dB, suitable for backlight environment monitoring.	
Real-time display of temperature and history curve.	
Support 1000M adaptive network interface.	
TCP/IP digital output.	
Power Supply	DC12V±10%/ DC12V±10% /PoE
Operating Temperature	-30°C~60°C
Power Consumption	<30W

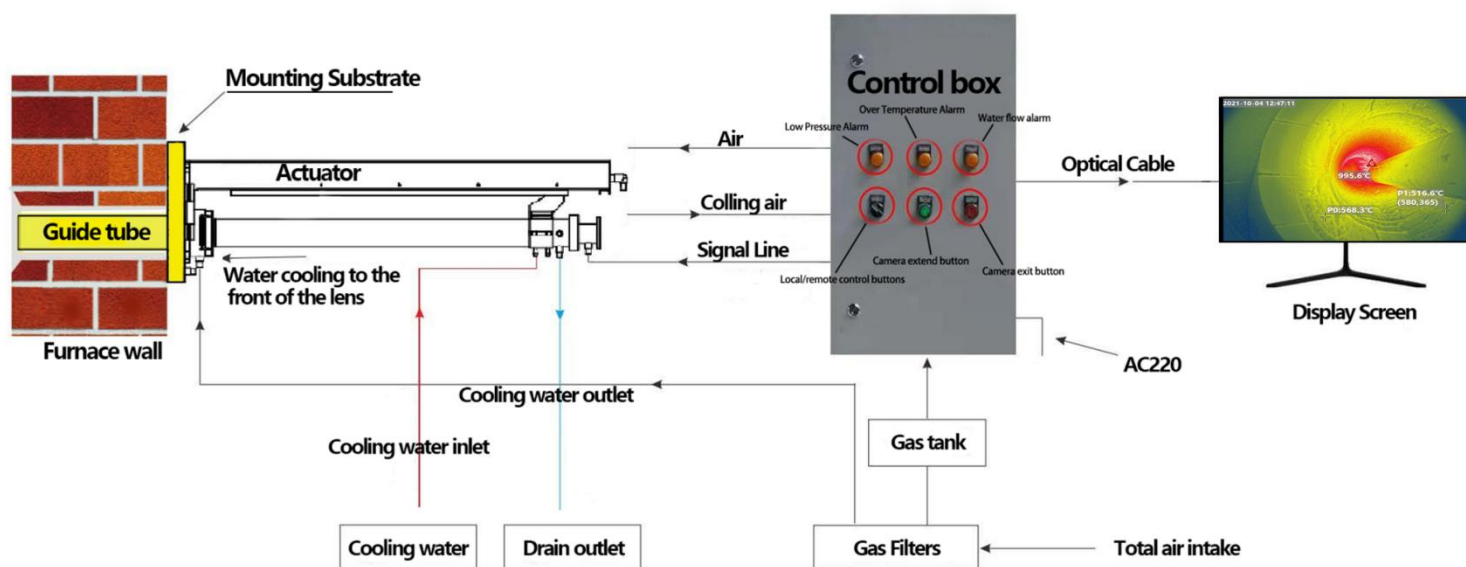
Rendering



Furnace camera system with retraction device

The pneumatic retraction mechanism consists of a cylinder, guide rail, and mounting bracket, designed for precise and reliable operation. The retraction control system uses relay control to monitor critical conditions, such as low cooling gas pressure, over-temperature, or power failure. Under these circumstances, the mechanism automatically retracts from the furnace chamber, effectively safeguarding the infrared camera system from potential damage.

Video camera system structure diagram



On-site image

