

Infrared thermal leak detector

Model: KC-186C

User's manual



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Introduction

KC-186C infrared thermal leak detector, mainly used for surface temperature of hand-held non-contact measurement object. The instrument also measured thermal leakage of sound and light locations remind and warning.

It has the advantages of low consumption, LCD and backlight, LCD visual display measurement results, auto save the measuring data and laser pointer. Its easy operation and portability design makes it widely used for applications of finding the hot spot of electric connection and bearing, measuring the hot and high-frequency objects, monitoring food processing and storage, inspecting temperature leak for heating & refrigeration system, inspecting temperature for technics control of metallurgy industry, inspecting temperature during laying asphalt and fire-control work, or any others. It is a good helper for measuring and discovering leak for the metallurgy, the electric power, the chemical industry, the rubber, the spinning and weaving, the plastic, the papermaking and the food processing. etc.

KC-186C is Class II laser product and accords with EN60825-1 safety standard.

Instrument components



- | | |
|------------------------------------------------------------|-----------------------------------------|
| A: Occur Leakage color indicator | G: Backward query storage + set add key |
| B: LCD | H: Laser emission window |
| C: Laser open and close +unit switch key | I: Infrared receiving window |
| D: Measurement lock + forward query storage + set down key | J: Battery compartment |
| E: Mode control button | K: Infrared measurement hook key |
| F: Infrared and thermocouple mode switch key | L: Battery compartment cover |

Technical Specifications

Product name	Infrared thermal leak detector		
Model	KC-186C		
Surface temperature measurement range	-50°C ~ +650°C (-58°F ~ 1202°F)		
IR response wavelength	8 ~ 14 μ m		
Repetition	1% of reading or 1°C		
Response time	500mSec, 95% response		
Temperature difference leakage range	0.5°C (1°F), 3°C (5°F), 5.5°C (10°F)		
Thermocouple jack detection range	-99°C ~ 1370°C (-146°F ~ 2498°F)		
Measurement accuracy	For surface temperature	-50°C ~ -2°C (-58°F ~ -28.4°F)	±4°C (±7.2°F)
		-2°C ~ 100°C (-28.4°F ~ 212°F)	±2.5°C (±4.5°F)
		100°C ~ 400°C (212°F ~ 752°F)	±1.5% ± 1°C (±1.8°F)
		400°C ~ 650°C (752°F ~ 1202°F)	±4% ± 1°C (±1.8°F)
	Thermocouple measurement temperature	< 0°C (< 32°F)	±2°C (±3.6°F) or ±2% of reading
		0°C (32°F) ~ 300°C (572°F)	±1°C (±1.8°F) or ±1% of reading
		> 300°C (572°F)	±2°C (±3.6°F) or ±2% of reading
D:S	12: 1		
Display resolution	0.1°C (°F)		
Emissivity	0.1 ~ 1.0 adjustable		
laser power	< 1mW		
Laser class	Class II		
Laser type	630nm ~ 670nm		
Laser switch	Yes		
Data storage group	20		
Thermocouple measurement model	K type (not included)		
Max/Min threshold alarm	Yes		
Locking measurement mode	Yes		
Temperature units exchange	°C/°F (Default: °C)		
Power supply	9V battery(6F22/6LR61)		
Continuous operating life time for battery	More than 6 hours		
Auto power off	1 minutes inactivity		
Operating temperature range	-10°C ~ +40°C (14°F ~ 104°F)		
Operating humidity	0 ~ 95%RH non-condensing		
Storage temperature	-20°C ~ +60°C (-4°F ~ 140°F), ≤ 85% (w/o battery)		
Product dimension	170mm × 135mm × 45mm		
Product weight	About 168g (w/o battery)		