



FURNACE GAS TEMPERATURE- CDB

The CDB thermometer is optimised to accurately measure the true gas temperature in boilers and incinerators using LAND's unique non-contact infrared technology.

CDB 'sees' through a cold ambient atmosphere to measure the main combustion product, hot carbon dioxide. With advanced spectral filtering of CO₂, CDB provides a true gas temperature for exceptional control - improving both process safety and process efficiency.

Installed on a boiler or incinerator, the thermometer works non-contact, 24/7, with its sight path extending above the furnace bed. With a two-wire loop connection and standard 4-20 mA signal output for easy connectivity, CDB ensures no interference with the process, ensuring an accurate measurement and high reliability.

Originally designed for measuring gas temperature in incineration processes like waste, biomass and others, the CDB can also be used to measure furnace exit gas temperature in power generation and industrial processing applications, provided the path length is sufficient.

The CDB thermometer is LAND's non-contact solution for measuring gas temperature in furnace processes.



FEATURES & BENEFITS

- **Resilient and Accurate Measurement:** Delivers stable, true gas temperature; unaffected by gases other than hot carbon dioxide.
- **System 4 Compatible:** Fully fits LAND System 4 accessories, including air/water-cooled jackets and air-purged sighting tubes
- **Low Maintenance:** External fitting avoids combustion interaction, reducing maintenance needs.
- **FEGT Measurement:** Accurately measures Furnace Exit Gas Temperature – essential for boiler performance and optimisation.

See degrees differently.

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SPECIFICATIONS

Range:	400 to 1800 °C / 752 to 3272 °F
Field of View:	Parallel beam <20 mm diameter to 900 mm / 35 in
Output:	4 to 20 mA linear (2-wire loop connection)
Response Time:	1 to 10 seconds adjustable
Emissivity Adjustment:	0.1 to 1.09 in steps of 0.01
Resolution:	<0.5 °C / 1 °F
Accuracy:	0.5 %K or 5 °C 0.5 %K or 9 °F (Whichever is higher)
Ambient Temp Limits:	5 to 50 °C / 41 to 122 °F
Drift with Ambient Temp:	<2° per 10° ambient change
Drift with Time:	<1 °C / 2 °F per year
Power Supply:	11 to 45 V d.c.
Sealing:	To IP65 / NEMA4X requirements
CE:	EN 50-082-2 (immunity), EN 50-081-1 (emission), IEC 1010 (safety)
Vibration:	3 g to 10 to 300 Hz



CONTACT US

WEB: www.ametek-land.com

EMAIL: land.enquiry@ametek.com

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