

Rugged Temperature Calibrators

Model 786 & 787

Low & High-Temperature Calibration Without Compromise

The Model 786 (-40°C to +140°C) excels in cold rooms, freezers, and sub-zero environments, maintaining accuracy where others fail. Its active environmental control ensures performance in extreme cold. The Model 787 calibrates up to 660°C, ideal for aerospace, automotive, and manufacturing industries. Both models offer exceptional stability and reliability.

Built for Portability & Durability

Encased in an IP56-rated shell, they resist dust, moisture, and impact. A removable lid provides secure accessory storage. Designed for rugged use, they withstand rough transit, vibration, and tight spaces, ensuring reliable field performance.

Precision & Efficiency

Both models offer Basic, Site, and ADVANCED interfaces for fast, responsive calibration. Features include:

- High accuracy and speed
- Rugged IP56 enclosures for harsh environments
- Military-grade durability
- Portable, self-contained design with accessory storage
- Advanced data logging and reference input

From extreme cold to high heat, the Model 786 and 787 deliver unmatched accuracy, efficiency, and reliability.



Low Temperature
Rugged Calibrator



High Temperature
Rugged Calibrator



Parameter	Model	
	786	787
<i>Temperature Range</i>	-40°C to +140°C	+35°C to +660°C
ADVANCED Range		
<i>Stability</i>	±0.008°C	±0.03°C
<i>Display Resolution</i>	0.01°C over whole range	0.01°C over whole range
<i>Input Channel Accuracy: Thermocouple</i>	E,J,K,N: ±0.2°C @ 660°C R: ±0.6°C S: ±0.7°C @ 660°C T ±0.2°C @ 150°C	
<i>CJC Accuracy</i>	±0.35°C	
<i>Input Channel Accuracy: RTD</i>	±0.1°C across range	±0.2°C across range
BASIC / SITE Range		
<i>Stability</i>	±0.01°C	±0.03°C to ±0.05°C
<i>Display Resolution</i>	0.01°C from -19.99°C to 99.99°C then 0.1°C (0.01°C over PC Interface)	0.01°C from 0.00°C to 99.99°C then 0.1°C (0.01°C over PC Interface)
COMMON Specifications		
<i>Display Accuracy</i>	0.15°C	±1°C (500°C) ±2°C (650°C)
<i>Radial Uniformity</i>	<0.008°C	<0.08°C
<i>Axial Uniformity</i>	<0.09°C	<0.5°C
<i>Heating Time</i>	See Graph	See Graph
<i>Cooling Time</i>	See Graph	See Graph
<i>Ingress Protection</i>	IP56 - With Lid Fitted	
<i>Storage Temperature</i>	-30°C to +71°C	
<i>Humidity</i>	0 to 90% (non-condensing)	
<i>Insert Dimensions</i>	29.4mm Diameter x 203mm Deep	25.4mm Diameter x 152mm Deep
<i>Insert Pockets</i>	4.50mm, 6.50mm, 8.00mm, 9.50mm, all 195mm deep, M4 tapped hole for supplied extractor tool.	4.50mm, 4.50mm, 6.50mm, 8.00mm, all 148mm deep, M4 tapped hole for supplied extractor tool.
<i>Power</i>	85-264 Vac, 50/60Hz, 360 Watts	110 or 230 Vac, 50/60Hz, 800 Watts
<i>Dimensions</i>	H 350mm W 400mm D 275mm	
<i>Weight (nominal)</i>	16.8kg	18kg

	ADVANCED	SITE	BASIC
			
<i>Digital Display of Set and Nominal Block Temperature</i>	Yes	Yes	Yes
<i>PC Interface</i>	Ethernet + USB Host	Serial	Serial
<i>Test Thermostats</i>	Yes - Two Inputs	Yes - Single Input	No
<i>Independent Temperature Indicator for Reference Probe</i>	Yes	Yes	No
<i>Additional Inputs for Units Under Test</i>	Up to 3: Two universal inputs for PRT, Thermocouple or Process inputs and a further Thermocouple input	No	No
<i>Automatic Temperature Cycling</i>	Yes	No	No
<i>Data Logging</i>	Yes - Export to USB	No	No
<i>Offset Elimination</i>	Yes - block can follow reference input	No	No
<i>Choose English, French, Italian or Spanish Language</i>	Yes - on full colour display	No	No
<i>In Built Web Server</i>	Yes	No	No
<i>Tamper Proof Data</i>	Yes - Suitable for life science, automotive and aerospace applications	No	No

Rugged Calibrators for Harsh Environments



DUST PROTECTION



WATER PROTECTION



ALTITUDE PROTECTION



EXTREME AMBIENT PROTECTION



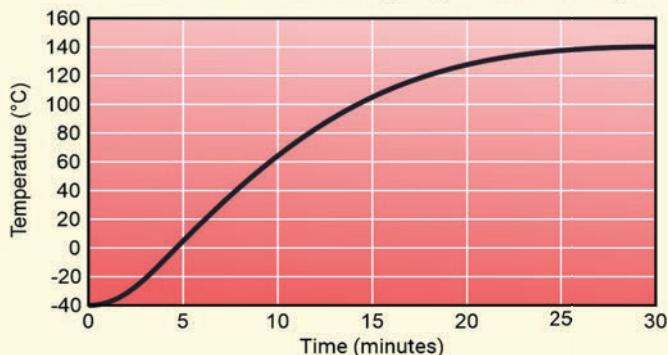
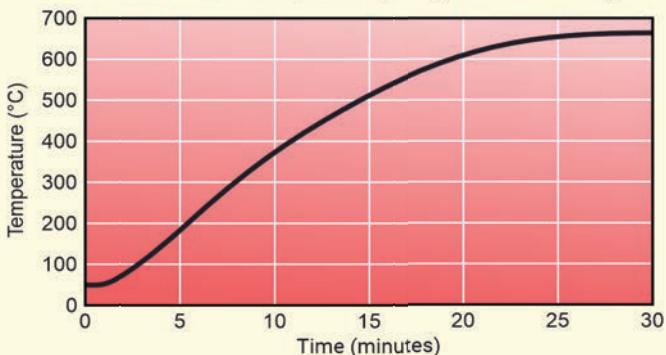
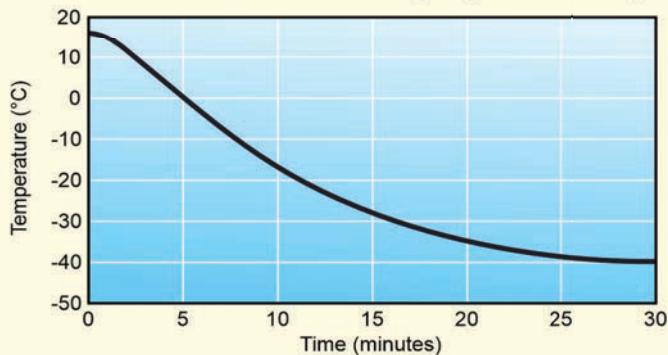
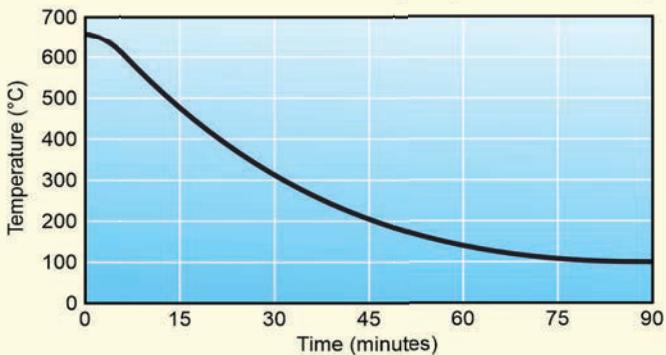
IMPACT PROTECTION



At Isotech we appreciate that operating in challenging environments often necessitates tools that can endure harsh conditions. **These rugged calibrators were designed (to US Navy specifications,) where a range of custom dry block temperature calibrators, constructed to military standards, and capable of operation even when the ambient temperature was well below 0°C.**

Rising to this challenge, and outperforming all international competitors, we developed what we believe to be the World's most rugged Dry Block Calibrator. Our efforts and commitment were well-rewarded, the Navy has already procured hundreds of these calibrators and their continued trust in our design emphasise the quality and reliability of our products.

Recognizing the potential benefits for a broader audience we have made these rugged, precision units available for general use, featuring our standard interface options, with capabilities to suit a wider range of industries.

786 Heat Up Graph (-40°C to 140°C)**787 Heat Up Graph (35°C to 660°C)****786 Cool Down Graph (15°C to -40°C)****787 Cool Down Graph (660°C to 100°C)****786 Cool Down Graph (140°C to 20°C)**