

# Cryogenic Comparison Calibration System

## CRYO-CAL®-2



### Calibrators

EDL's Cryogenic Calibrator, the CRYO-CAL®-2, is a passively cooled cryostat that allows the user to calibrate a range of temperature measurement devices from 77K (-196 °C) to 0 °C at an affordable price. The CRYO-CAL®-2 uses liquid Nitrogen as the cooling media, thus eliminating the need for expensive cascade compressor systems and cumbersome baths. Calibrating at 113 K (-160 °C) is no problem, and in fact, calibration at any temperature above 77 K (-196 °C) is easily accomplished with dwell times greater than 15 minutes. The CRYO-CAL®-2 requires no expensive bath fluids, and is virtually maintenance free. There are no moving parts, no pumping or stirring systems. With less than four liters of LN2, affordable comparison calibrations are possible at any desired temperature above 77 K (-196 °C).

The CRYO-CAL®-2 is equipped with a high precision Eurotherm controller with a resolution of 0.1 °C. The controller is easy to use, with demo videos available online. The controller is pre-programmed to ensure ease of use. The unit includes an RS-232 interface for use with the supplied iTools software. Full function programming, monitoring, and graphing from your computer is achieved through the use of this software. In addition to a NIST traceable calibration certificate, a stability report is included with your purchase. Available in either 120VAC or 240VAC, EDL will accommodate a cord configuration to match your home country's power requirement. All calibrators are made in the USA and are thoroughly tested for stability and uniformity before shipping.

- **Most Economical Method for Cryogenic Comparison Calibrations**
- **Easy Calibrations From 77 K (-196 °C) to 0°**
- **Virtually Maintenance Free**
- **Calibrate Up to 4 Sensors at One Time in the Standard Block**
- **15 Minute Plateaus at Desired Temperature**
- **NIST Traceable Calibration Certificate Included**

#### CRYO-CAL®-2 BATH SPECIFICATIONS

Model Number	CRYO-CAL®-2
Temperature Range	-196 °C (77 K) to 0 °C (273 K)
Dewar Dimensions	25.71cm (10 1/8") Diameter x 43.18cm (17") H Weight: 14.51kg (32 lbs.) Capacity: ~ 13.9 Liters
Linear Bushings	Teflon
Wells	(4) 8mm holes with (4) included tubes designed for 0.250"
Block Diameter	4.45cm (1.75")
Insertion Length	27.94cm (11") Minimum
Immersion Depth	14.40mm (5.66") (In Block)
Dewar Material	Stainless Steel Vacuum Insulated
Block Material	OFHC / Copper
Lid Material	Polycarbonate
Minimum Use Temperature	-196 °C (77 K)
Maximum Use Temperature	0 °C (273 K)
Stability	< 5mK
Uniformity	< 5mK
Resolution	0.1 °C
Interface	RS-232 Interface and iTools
Power	120VAC, 10 amp, 50/60Hz *Available in 240VAC (Add -2 to base part number; EX: CRYO-CAL-2-2)



Spacer Inserts are available to accommodate your choice of sensor diameters of 0.125", 0.1875", and 0.276". Standard sizes available; custom sizes available upon request.



## PROCESS MEASUREMENT PTE LTD

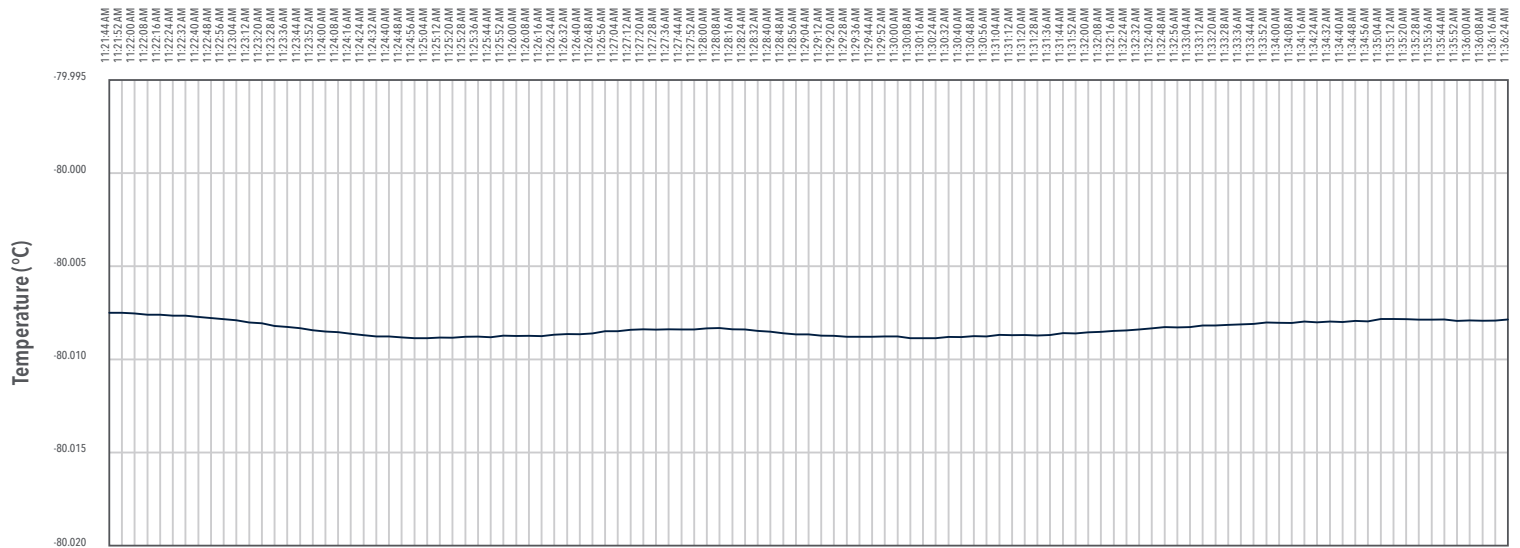


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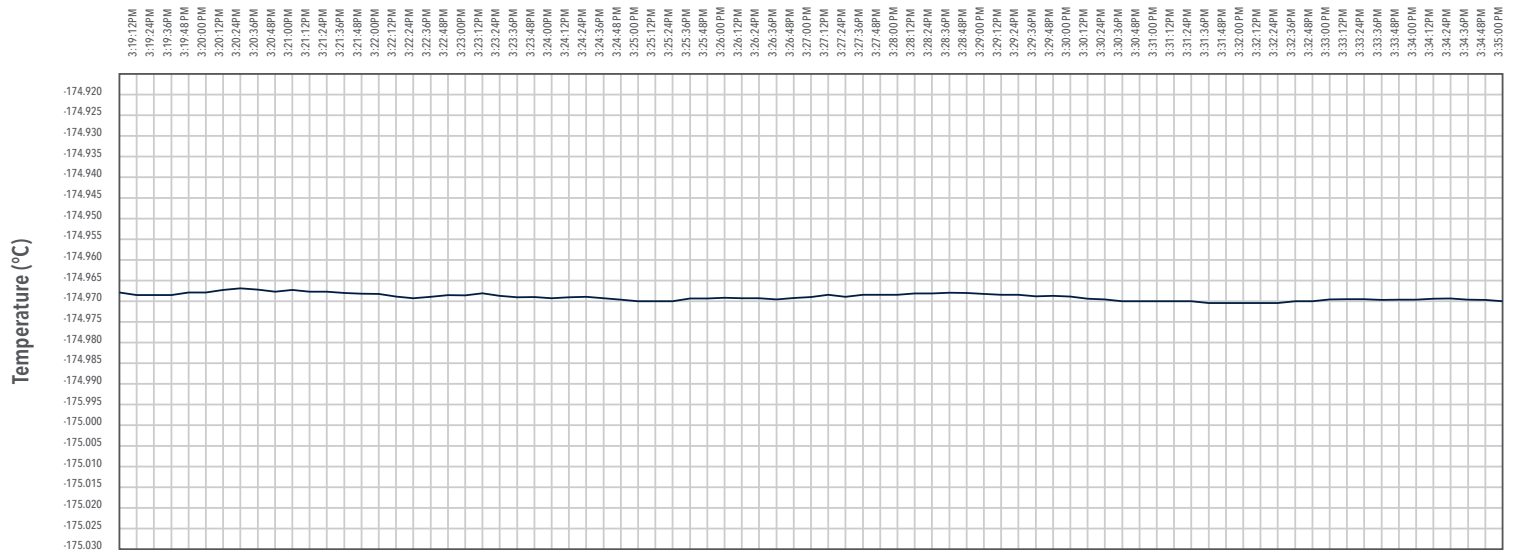


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Stability Over 15 Minutes at -80 °C  
Standard Deviation K=2 0.000852707



Stability Over 15 Minutes at -175 °C  
Standard Deviation K=2 0.00157



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