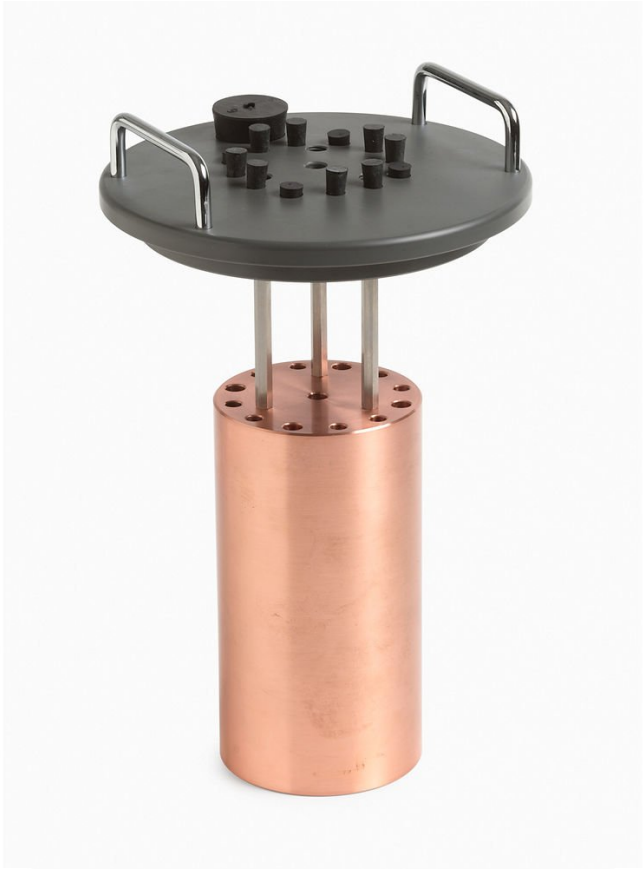
TECHNICAL DATA

# 7196B $LN_2$ Comparison Calibrator



## Key features

- Provides low-cost calibrations to -196°C.
- Uncertainty less than 2 mK, ensuring precise and reliable results.
- Simple and straightforward to use.

## Product overview: 7196B $LN_2$ Comparison Calibrator

The nominal boiling point of nitrogen is –196°C at one atmosphere of pressure. The defining triple point of argon is –189.3442°C. While there is a difference between the nominal boiling point of nitrogen and the argon triple point, the difference can be corrected for mathematically, and an uncertainty of less than 2 mK from the actual argon triple point is achievable.

Fluke Calibration's $LN_2$ Comparison Calibrators consist of a vacuum-sealed stainless steel Dewar Flask, a high-purity copper block, and a precision-fit lid. The dewar is filled with $LN_2$ and the copper block is suspended in it; an SPRT is inserted into the block and a calibration is performed against your own calibrated SPRT. The **7196B-4** includes four 8-mm (0.32") wells. The **7196B-13** includes five 8-mm (0.32") wells and eight 6.35-mm (0.25") wells.

Fluke Calibration's $LN_2$ Comparison Calibrators are neither expensive nor complicated to use. If you need supporting data or would like to discuss the theory of operation of an $LN_2$ Comparison Calibrator, call Fluke Calibration today. (Or come to one of our calibration training courses and we'll show you.)

## Specifications: 7196B $LN_2$ Comparison Calibrator

| Specifications | |
|---|---|
| Temperature | Nominal –196°C depending on atmospheric pressure |
| Thermal Wells | 7196B-4: four 8 mm (0.32") I.D. wells<br>7196B-13: five 8 mm (0.32") I.D. wells, eight 6.35 mm (0.25") I.D. wells<br>Both blocks: 275 mm immersion from top of lid to boom of well, 150 mm immersion into copper block |
| Dimensions (outer diameter x height) | 168 mm x 406 mm (6.6 in O.D. x 16 in) |
| Temperature Stability | Typically beer than 2 mK/20 min[1] |
| Temperature Uniformity | <0.0004 °C |
| Volume | 5.47 liters (1.45 gallons) |
| [1] The equilibrium temperature will change with the atmospheric pressure (dT/dp » 0.085 mK/Pa). The actual temperature stability depends on atmospheric pressure stability. | |

# Ordering information


**7196B-4**

$LN_2$ Comparison Calibrator, 4 holes

**7196B-13**

$LN_2$ Comparison Calibrator, 13 holes

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