

MARATHON PRODUCTS

microDL-80C™

Record and Log Ultra-low Temperatures in Shipments, Refrigerators or Freezers



Our multi-use microDL-80C digital display technology now operates at ultra-low temperatures of -80C (-112F). The compact, coin-sized unit with the external thermistor probe can now help you verify that internal temperatures of your dry ice packages meet specifications prior to acceptance of your shipment. Simply push the start button to view critical temperature information upon arrivals. With optional memory sizes of 8k, 32k and 64k, accuracy and resolution of 0.2C, and a one meter long flexible ribbon probe this product is the answer for data logging ultra low temperature freezers or dry ice shipments.

Flexible - Pressing the button will display the following visual information: whether or not the logger is Recording, the Current Temperature, Elapsed Time in Days, MKT (Mean Kinetic Temperature), High Temperature, Low Temperature, Alarm Time Over High Temperature, Alarm Time Below Low Temperature and Alarm Conditions. Customizable settings include: Delay to Start, Stop, Elapsed Time as well as customizable sampling time intervals. Also available: User Descriptions for initialization and for downloading the data.

Visual Alarms - All our data loggers have the ability to program alarm limits. Should the temperature reach levels outside these limits, the digital display will show a notice until reset by the user.

Computer Ready - You can download the recording to your PC and plot the data, at any time. Our proprietary microDL USB Reader is needed to download temperature information to a computer. Marathon's easy-to-use MDAS-Pro software is available for PCs running Microsoft Windows 2000, XP, Vista and Windows 7. 21CFR compliant software is available with full database capabilities.



Temperature Range

-80°C to 30°C

Temperature Accuracy

(NIST traceable)

±0.2°C at zero degree

±1.0°C at extremes

Measurement intervals

2 seconds to months

Number of measurements

7,600 to 63,710 samples

MARATHON
PRODUCTS, INC.

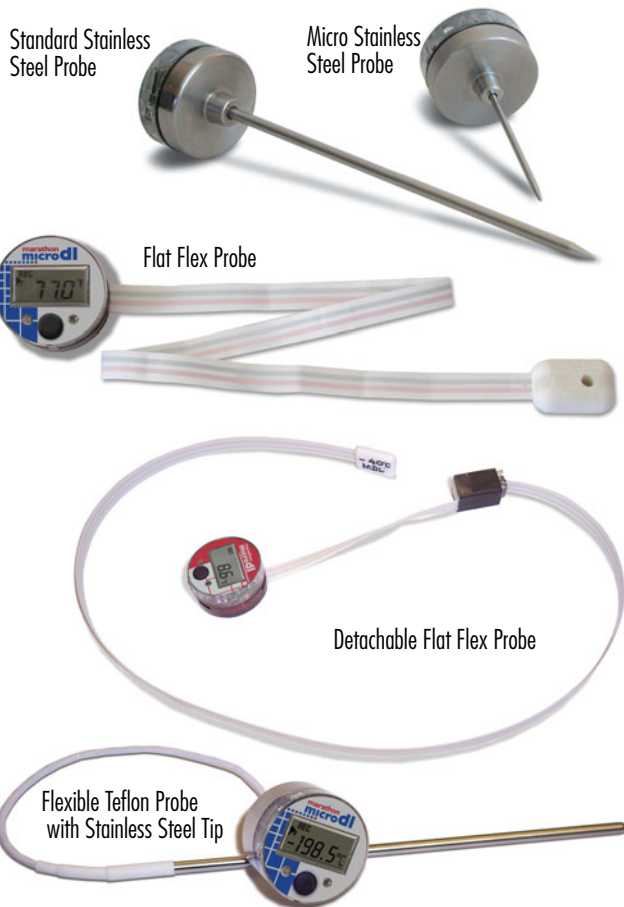
Don't ship without us!®

microDL-80C Specifications

| | |
|--------------------------------|--|
| Measurement Intervals | User programmable from 2 seconds to months |
| Power Source | (2) 3 volt lithium coin cells. 10 year shelf life with approx. 3 year continuous operating mode. |
| Alarm Limits | High & Low Alarms set by temperature and time |
| Size | Diameter: 2.86 cm (1.25 in.), Height: 1.4 cm (0.5 in.) |
| Water Resistant - Splash Proof | |
| Reader Station | USB 1.1 Port Interface |
| Software Compatibility | Windows 2000, XP, Vista, & 7 |

| Model number | mdl8 | mdl32 | mdl64 |
|-----------------------|---------------------------|---------------------------|---------------------------|
| EEPROM Memory | 8K | 32K | 64K (variable) |
| Temperature Range | | | |
| Low / High | -80C / 30C -112F / 86F | -80C / 30C -112F / 86F | -80C / 30C -112F / 86F |
| Temperature Accuracy | | | |
| At zero | 0.2C / 0.4F | 0.2C / 0.4F | 0.2C / 0.4F |
| Extremes | 0.5C / 1.0F | 0.5C / 1.0F | 0.5C / 1.0F |
| Features | | | |
| Stainless steel backs | Yes | Yes | Yes |
| Variable memory | No | No | Yes |
| Continuous memory | Yes | Yes | Yes |
| Weight | 17 g (0.6 oz.) | 17 g (0.6 oz.) | 17 g (0.6 oz.) |
| Mean Kinetic Temp. | Yes | Yes | Yes |
| Warranty | 12 months | 12 months | 24 months |

Probe Options



| | |
|---|--------------------------------------|
| Standard Stainless Steel Probe | |
| Length | 15.24 cm (6 in.) or custom lengths |
| Diameter | 3.49 mm (0.136 in.) |
| Micro Stainless Steel Probe | |
| Length | 7.06 cm (2.78 in.) or custom lengths |
| Diameter | 1.8 mm (0.07 in.) |
| Flat Flex Probe | |
| Length | 61 cm (24 in.) or custom lengths |
| Width | 0.76 cm (0.3 in.) |
| Detachable Flat Flex Probe | |
| Length | Custom Lengths |
| Width | 0.76 cm (0.3 in.) |
| Flexible Teflon Probe with Stainless Steel Tip | |
| Total Length | 50.8 cm (20 in.) or custom lengths |
| Stainless Steel Tip | 15.24 cm (6 in.) |
| Diameter | 3.49 mm (0.136 in.) |

DISPLAY EXAMPLES

Press the Start button to see the following information display with each press:

| | | | |
|--|--|---|---|
| | | | |
| 1. REC: 8.6°C shows recording and current temperature | 2. RUN: 11 D shows elapsed time in days | 3. MKT: 9.1°C shows mean kinetic temperature (available on silver model only) | 4. HI: 15.2°C shows alarm has occurred and high temperature |
| | | | |
| 5. LOW: 8.2°C shows alarm has occurred and low temperature | 6. HI HR: 0.3 shows alarm time hours over high threshold | 7. LOW HR: 1.1 shows alarm time hours over low threshold | 8. REC: 14.9°C Push to return to current temperature |

Also available in standard temperature (-10C to -40C) and cryogenic (-200C) configurations. For more information about the microDL family and MDAS-Pro software please contact Marathon Products.

Please call 1-510-562-6450 x607
for more information or to place an order.

www.marathonproducts.com

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