

# MSR 85: Reusable PDF Ultra-Low Dry Ice Data Logger for Temperature Monitoring of Cold Chains and Shipments down to -85 °C



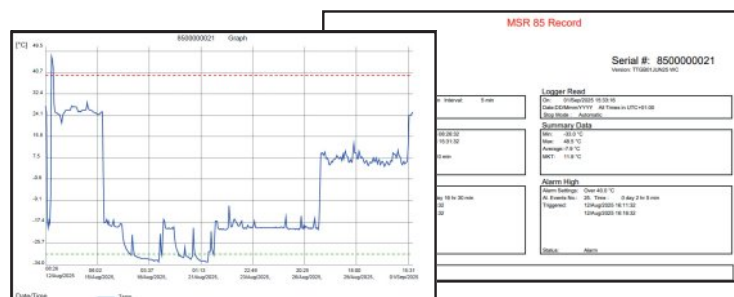
The robust MSR85 data logger ensures reliable temperature monitoring for products transported or stored with dry ice. It is ideal for sensitive goods such as pharmaceuticals, vaccines, biological samples, tissues or enzymes that require a secure cold chain down to -85 °C.

Thanks to its replaceable battery and long operating life, the MSR 85 can be used multiple times – a cost-effective and sustainable solution for cold chain monitoring. Set-up is remarkably simple: Before use, configure all required parameters such as alarm limits, measurement interval or time zone using the Configuration Tool. Recording is then started conveniently with the push of a button.

After transport, recipients can immediately see via the LED whether threshold values have been exceeded. Once recording is stopped by pressing the button, and the logger is connected to a PC via USB, the MSR 85 automatically generates **tamper-proof PDF and CSV reports** with all relevant data.

## Your benefits at a glance

- ✓ PT1000 temperature sensor, -85 °C to +70 °C
- ✓ Storage capacity of up to 32,000 measured values
- ✓ Bright LEDs for easy alarm recognition
- ✓ Replaceable 3.6 V ½ AA battery
- ✓ Integrated USB-C port – simple PC connection
- ✓ Automatic PDF and CSV reports with data and graphics
- ✓ Rugged, temperature-resistant housing (IP67)
- ✓ Incl. 5-point calibration certificate
- ✓ Easy handling, reliable evaluation
- ✓ Measurement data cannot be manipulated
- ✓ **EN 12830 certified** for food and pharmaceutical logistics
- ✓ Complies with **FDA 21 CFR Part 11**



## MSR85 Data Logger – Technical Data

<b>Type</b>	Reusable PDF data logger for temperature monitoring of cold chains and transports in the dry ice range.
<b>Temperature range</b>	-85 to +70 °C (-121 to +158 °F)
<b>Accuracy</b>	better than + 0.7 °C (-85 to -30 °C), + 0.5 °C (-30 to +70 °C)
<b>Resolution</b>	0.1 °C
<b>Sensor</b>	PT1000 temperature sensor, (housing-mounted, no cable)
<b>Memory capacity</b>	32,000 readings (32K – non volatile)
<b>Logging interval</b>	Selectable options: 1 min, 5 min, 8 min, 10 min, 15 min, 30 min, 1 h, 2 h
<b>Start delay</b>	1 min to 45 days
<b>Alarm limits</b>	Min./max. values
<b>LED</b>	6 LEDs indicators: 2 LEDs for recording/stop status; 2 LEDs for high/low alarm status 2 LEDs for battery status (full, ¾, ½ or less).
<b>Push buttons</b>	Two secured push button to start & stop recording.
<b>Housing</b>	Robust, temperature-resistant housing (IP67) made of polycarbonate/ABS, food grade.
<b>Dimensions</b>	Ø 50 mm x H 45 mm, approx. 43 g
<b>Battery type</b>	Replaceable 3.6V ½ AA size. Recommendation: Type EVE ER14250
<b>Battery life</b>	Approx. 100 days at a logging interval of 10 minutes – depending on the sampling rate as well as operating and storage conditions.
<b>PC interface</b>	USB Type-C
<b>Data report</b>	Automatic creation of Adobe PDF and CSV reports with graphs, measurement tables, and summaries of statistical data (tamper-proof).
<b>Configuration tool</b>	The Configuration Tool is provided via a link.
<b>QA certification</b>	Calibration certificate – traceable nationally and internationally. Each MSR85 data logger is factory-calibrated at five temperature points. A copy of the certificate is additionally stored on the data logger.
<b>System requirements</b>	Windows 7 or higher; Adobe Reader 9.0 or higher
<b>Transport regulations</b>	Safe for air, land, and sea transport; no marking required according to IATA Dangerous Goods Regulations (DGR), 58th Edition 2017; UN3019, Packing Instruction 970 Section II – exempted lithium metal cells and batteries. U.S. Department of Transportation, Lithium Battery Hazardous Material Regulations; 49 CFR Parts 171–180; 2016 International Maritime Dangerous Goods (IMDG), Packing Instruction 903

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We will be happy to provide you with information on prices and delivery terms.

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