

3M Industrial Adhesives and Tapes Division

3M™ Temperature Logger TL Series - Performance, Quality and Compliance Statement

- 3M™ Temperature Logger TL Series
- 3M™ Temperature Logger TL USB Cable
- 3M™ Temperature Logger TL Series Software

Safety Information Explanation of Warning Symbols:



WARNING: Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury and/or property damage.



CAUTION: Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury and/or property damage.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



Caution: Contains Lithium Battery.



Caution: Do Not Incinerate.



Warning: Read Accompanying Documentation.



WARNING:

- **To reduce the risk associated with fire, explosion, and/or food contamination:**
 - Read, understand and follow the safety information contained in all accompanying documentation.
 - Do not use this product for purposes other than that stated in the intended use statement.
 - Do not use this product in potentially flammable / explosive environments.
- **To reduce the risk associated with food contamination:**
 - Do not use with damaged or unsealed bag.
 - Do not use the collected data if there are reasons to believe that device failure or misuse has occurred.
 - Provide appropriate instructions and training to all personnel operating and collecting data from the temperature logger.



CAUTION: To reduce the risk associated with fire, explosion, and/or food or ground water contamination:

- Always dispose of this product in a manner consistent with local, regional and national regulations.
- Lithium battery enclosed. Do not incinerate.

United States of America: FCC and I.C. Information:

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. **NOTE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful

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interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Canada:

- This Class B digital apparatus complies with Canadian ICES-003.
- Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

European Union:

- **This device complies with EN standard 12830:1999 (Temperature Recorders for Chilled and Frozen Foods):**
- From +30°C to +60°C: Accuracy Class '2'
- From -20°C to +30°C : Accuracy Class '1'
- 'S' (storage) and 'T' (transport)
- Climatic Environments; 'C' and 'D'

Must be sealed in the supplied bag when used in the food industry.

- **EMC Directive conformance statement:**

This product is in conformity with the protection requirements of EU Council Directive 89/336/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility. This product has been tested and found to comply with the limits for Class B Equipment according to CISPR 22 / European Standard EN 55022 on emissions, and CISPR 24 /European Standards EN 61000-4-3, EN 61000-4-2 on immunity.



This device is compliant with the EU Directive 2002/95/EC – RoHS (“Restriction of the use of certain hazardous substances in electrical and electronic equipment). “RoHS compliant” means that the product or part does not contain any of the substances in excess of the maximum concentration values in EU Directive 2002/95/EC, as amended by Commission Decision 2005/618/EC, unless the substance is in an application that is exempt under RoHS. Unless otherwise stated by 3M in writing, this information represents 3M’s knowledge and belief based on information provided by third party suppliers to 3M.

3M™ TL Series Software

-The 3M™ TL Series Temperature Logger and Software system is both secure and accurate. It is compliant with **21 CFR Part 11**, a standard that ensures data security when used according to software instructions provided for the intended use. The 3M™ temperature Logger TL20V undergoes a **3 point temperature verification** test, utilizing processes that comply with ISO/IEC 17025 and standards traceable to NIST, to ensure the highest levels of accuracy.

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The TL20-V carries a label stating the month of temperature accuracy verification. The data of the temperature accuracy verification are made available at the website: 3M.com/temperaturelogger.

Computer System Requirements: Hardware: IBM™ compatible Pentium™ PC or Higher.
Software: Windows™ 2000 or Windows™ XP with 256 MB RAM, 256 VGA color monitor with 60 MB free space, CD-ROM drive and a USB port.

Storage: Store the 3M™ Temperature Logger TL20 products prior to use in a clean, dry environment in non-condensing conditions between 2°C (35°F) and 32°C (90°F).

Product Use: All statements, technical information and recommendations contained in this document are based upon tests or experience that 3M believes are reliable. However, many factors beyond 3M's control can affect the use and performance of a 3M product in a particular application, including the conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. Since these factors are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method of application. This product is not intended for any medical diagnostic use. Any use of this product that is inconsistent with the intended use statement is not recommended by 3M.

Warranty and Limited Remedy: Unless stated otherwise in 3M's product literature, packaging inserts or product packaging for individual products, 3M warrants that each 3M product meets the applicable specifications at the time 3M ships the product. Individual products may have additional or different warranties as stated on product literature, package inserts or product packages. 3M MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY ARISING OUT OF A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's application. If the 3M product is defective within the warranty period, your exclusive remedy and 3M's and seller's sole obligation will be, at 3M's option, to replace the product or refund the purchase price.

Limitation of Liability: Except where prohibited by law, 3M will not be liable for any loss or damage arising from this 3M product, whether direct, indirect, special, incidental or consequential regardless of the legal theory asserted, including warranty, contract, negligence or strict liability.

The TL20 Product is manufactured according to the Quality Policy of 3M Industrial Adhesive and Tape Division Quality to meet the stated product specifications.

Product manufactured in China for 3M.

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3M™ Temperature Logger TL Series

Intended Use:

The 3M™ Temperature Logger system is intended to be used for monitoring and recording environmental temperatures during storage and transport of temperature sensitive goods.

- For use in the food industry, it must be sealed in a container or in a plastic bag approved for direct food contact. The 3M™ Temperature Logger itself should not be placed in direct contact with food.
- It is not intended for any medical diagnostic use.
- Any other use of this product not recommended by 3M constitutes misuse.

Quality Verification

- The 3M™ temperature loggers are individually tested for the relevant functional performances before release, utilizing a standardized statistical sampling plan to verify operational functionality and product performance. In addition, a random statistical sample of each production lot of 3M™ Temperature Loggers is tested for temperature accuracy by an ISO/IEC 17025 accredited laboratory. All the standards used in the temperature accuracy verification process are in compliance with ISO/IEC 17025 and are traceable to the International System of Units (SI) through a country's National Measurement Institute, such as NIST (National Institute of Standards and Technology) in the U.S.A.
- Each TL20V device is verified by the 3M Corporate Metrology Services accredited to ISO/IEC 17025 (Certificate No. 2218.01, American Association for Laboratory Accreditation, A2LA).

Typical Performance Properties:

Temperature Range and accuracy limits of the 3M TL20:

- From -20°C/-4F to +30°C/+86°F - Temperature Accuracy: +/-0.5°C; +/- 0.9°F
- From +30°C/+86°F to +60°C/+140°F - Temperature Accuracy: +/-1.0°C; +/-1.8°F
- Temperature Resolution: 0.1°C / 0.3°F
- Memory Data Points: 12 000+
- Data Logging Frequency: 1 to 120 minutes with 1 minute increment
- Auto Start-up Delay: 0 min to 1080 min (168 hours or 7 days)
- Manual Start-Up Delay: 0 min to 240 min (4 hours)
- Range of Monitoring Time: 1 to 255 days
- Water Splash Resistance NEMA 3R
- Size 70 mm x 44 mm x 11 mm (2.8" x 1.7" x 0.4")
- Weight 26 grams / 0.91 oz.

Compliance with the Performance Standard EN 12830:1999 for Temperature Measuring Devices suitable for the transport and storage of chilled and frozen foods:

- **Temperature Range and accuracy:**
 - From +30°C to +60°C: **Class '2'** (Accuracy within +/- 1.0°C)
 - From -20°C to +30°C : **Class '1'** (Accuracy within +/- 0.5°C)
- **The device is suitable for:**
 - **'S'** : Storage
 - **'T'** : Transport

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- **Climatic environments** usable for operating and storing this device:
 - **'C'**: device with internal sensor suitable for food storage and distribution within the stated operating range.
 - **'D'**: device with internal sensor suitable for use in food transport vehicle within the stated operating range.
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- 3M™ temperature logger was tested and was found in compliance with the following requirements:
 - Data accuracy
 - Data security
 - Recording time and timing error
 - Response time
 - Shock Resistance
 - Mechanical vibration resistance
 - Power-cut off data retention
 - Electrical safety (short circuit protection)
- 3M™ temperature logger was found compliant with the **NEMA 3R** requirements for protection against ingress of water. It is resistant to water splash but it cannot be submerged in water or subjected to direct water spray without possible recording errors or damage to the device.

EMC Directive conformance statement:

- This product is in conformity with the protection requirements of EU Council Directive 89/336/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility. This product has been tested and found to comply with the limits for Class B Equipment according to CISPR 22 / European Standard EN 55022 on emissions, and CISPR 24 /European Standards EN 61000-4-3 and EN 61000-4-2 on immunity.