DATASHEET

RFOT-FR

MadgeTech

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MADGETECH
WE BUILD DATA LOGGERS

RFOT

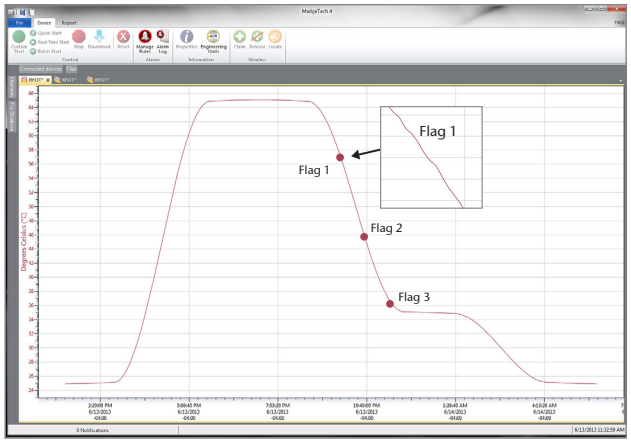
Wireless Meat Temperature Data Logger

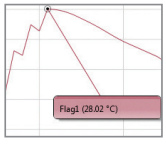
MadgeTech's RFOT is the most advanced wireless temperature data logger in the meat industry today. The RFOT's rugged design, equipped with a flexible piercing probe allows it to be used in the harshest environments. It is perfectly suited for smoke houses, ovens and other cooking processes up to 212 °F (100 °C) as well as refrigerators and freezers down to -4 °F (-20 °C). It is completely splash proof and can with-stand wash down cycles. This state-of-the-art device records and transmits internal product temperature readings back to a central computer for instant real-time monitoring.

The RFOT never needs to be connected to a computer as it has been designed for two way wireless communication. All communication can be performed directly from a central PC. In addition to wirelessly transmitting data, the RFOT also stores each reading to internal memory for backup. This back up data may be retrieved wirelessly at a later time.

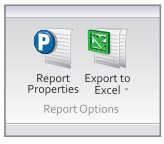
MadgeTech's easy to use software features user programmable critical control points, called "cooling flags" to assist in compliance with USDA Appendix B. The "cooling flags" are automatically annotated on the graph and tabular data views. The summary tab provides the cool down duration between each critical control point. The data can also be automatically exported to Excel® for further calculations.

MadgeTech 4 Software Features

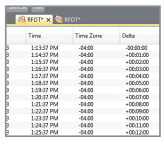


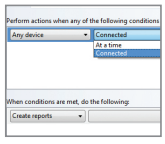


Cooling Flags



Export to Excel


Tabular Data View



Automation

- Multiple graph overlay
- Statistics
- Digital calibration
- Zoom in/ zoom out
- Lethality equations (F0, PU)
- Mean Kinetic Temperature
- Full time zone support
- Data annotation
- Min./Max./Average lines
- Summary view

FEATURES

- Wireless Two-Way Communication
- Splash proof (IP67)
- Real-time Operation
- Battery Life Indicator
- Programmable Start Time
- Memory Wrap Around
- Field Upgradeable Firmware

BENEFITS

- No Wiring
- Fast Installation
- Minimal Long-Term Maintenance
- Long-Term Field Deployment

APPLICATIONS

- Meat Processing
- Meat Storage
- Smoke Houses
- HACCP Compliance
- Complying with USDA Regulations
- Food Process Monitoring

AKRIBIS, www.akribis.info, contacto@akribis.info

Specifications

Specifications are subject to change without notice. Specific warranty remedy limitations apply. Call **(603) 456-2011** or go to **madgetech.com** for details.

GENERAL

Reading Rate	1 reading every 2 seconds up to 1 reading every 24 hours
Memory	21,504 readings; software configurable memory wrap
Wrap Around	Yes
Start Modes	Immediate and delay start
Calibration	Digital calibration through software
Calibration Date	Automatically recorded within device
Battery Type	3.6V lithium battery included; user replaceable
Battery Life	2 years typical at 15 second reading rate
IP Rating	IP67
Data Format	Date and time stamped °C, °F, K, °R
Time Accuracy	±10 second / month (at 25 °C)
Computer Interface	USB; 115,200 baud
Operating System Compatibility	Windows XP SP3 or later
Software Compatibility	Standard Software version 2.00.72 or later Secure Software version 2.03.06 or later
Operating Environment	-20 °C to +100 °C (-4 °F to 212 °F) 0 %RH to 100 %RH non-condensing
Dimensions	**Body:** 7.8 in x 1.62 in dia. (198 mm x 41 mm dia.) **Hook ID:** 0.625 in (16 mm) **Cable Length:** 30 in (760 mm)
Probe Lengths	**RFOT-FR:** 1.75 in (45 mm), Tip Diameter: 0.063 in (1.6 mm) Tip Length: 1.25 in (32 mm) **RFOT-4-TD:** 4.00 in (102 mm), Tip Diameter: 0.125 in (3.2 mm), Tip Length: 3.50 in (89 mm) **RFOT-4:** 4.00 in (102 mm), Tip Diameter: 0.188 in (4.8 mm), Tip Length: Full **RFOT-7:** 7.00 in (177 mm), Tip Diameter: 0.188 in (4.8 mm), Tip Length: Full **RFOT-12:** 12.00 in (305 mm), Tip Diameter: 0.188 in (4.8 mm), Tip Length: Full
Material	**Body:** Radel R-5100 **Cable Jacket:** Silicone Polyurethane
Weight	8.8 oz (250 g)
Approvals	US (FCC), CA (IC), CE

TEMPERATURE

Probe Temperature Range	-50 °C to +200 °C (-58 °F to +392 °F)
Resolution	0.01 °C (0.018 °F)
Probe Calibrated Accuracy	±0.1 °C (14 °F to 212 °F / -10 °C to +100 °C) ±0.5 °C (outside of that range)

WIRELESS

RF Frequency	2.45 GHz IEEE 802.15.4 ultra-low power wireless transceiver with fully bi-directional communication
Band	ISM band 2.405-2.48 GHz
Maximum Output Power	+0 dBm typical (RFOT), 20 dBm maximum (RFC1000)
Receiver Sensitivity (RFC1000)	-95 dBm typical (RFOT), -104 dBm typical (RFC1000)
Transmission Distance (to data loggers)	**RFC1000, RFC1000-CE & RFC1000-IP69K** 2,000 ft max. outdoors - line of sight unobstructed 500 ft max. indoors - typical urban environment
Transmission Distance (To other RFC1000's)	**RFC1000** 4,000 ft max. outdoors - line of sight unobstructed 1,000 ft max. indoors - typical urban environment **RFC1000-CE** 2,500 ft max. outdoors - line of sight unobstructed 700 ft max. indoors - typical urban environment **RFC1000-IP69K** 4,000 ft max. outdoors - line of sight unobstructed 1,000 ft max. indoors - typical urban environment

BATTERY WARNING: Fire, explosion and severe burn hazard. Do not recharge, disassemble, heat above 100 °C (212 °F), incinerate, crush, or expose contents to water.

Ordering Information

RFOT	PN 902143-00 = RFOT-FR PN 902144-00 = RFOT-4 PN 902145-00 = RFOT-4-TD PN 902146-00 = RFOT-7 PN 902147-00 = RFOT-12	Wireless Temperature and Humidity data logger
RFC1000	PN 901383-00	Wireless RF receiver/repeater. USB to mini USB adapter & power supply included
RFC1000-CE	PN 901338-00	Wireless RF transceiver/repeater, CE approved for Europe. USB to mini USB adapter & power supply included
RFC1000-IP69K	PN 901389-00	Wireless RF transceiver/repeater, splash proof with an IP69K rating. USB to mini USB adapter included
TLH-5903	PN 901748-00	MadgeTech Cloud Services Data Logging Hub

For Quantity Discounts call (603) 456-2011 or email **sales@madgetech.com**

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