

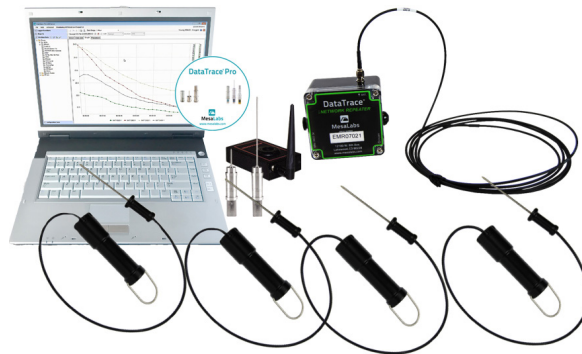
# DT Sentinel Process Monitoring System

The combination of high temperatures, by-products and environmental conditions present in a meat curing or cooking environment presents complications when trying to get accurate, real-time data from within the process. Ending the cooking process too soon can lead to undercooked product and potential recalls and spoilage, while ending it too late can lead to overcooked product and unnecessary energy consumption. Knowing exactly when to pull the product from the cooking process means higher yields and better profitability.

In an extreme environment, additional considerations must be made to protect the body of the data logger and to ensure the delivery of the data.

DataTrace introduces the DT Sentinel Process Monitoring System, designed specifically for real-time process monitoring in harsh environments.

- Robust Construction
- Increased Yield
- Reduced Energy Consumption
- Higher Profitability
- Improved Worker Safety



The DataTrace Sentinel Monitoring System allows for real-time transmission of key parameters so that the accurate determinations can be made about the product within the process and product can be removed from the process at the most efficient and appropriate time, eliminating the need for manual temperature verification.

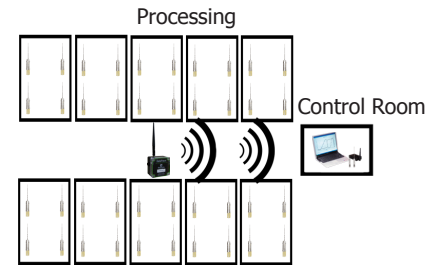
Mesa's new DataTrace Logger Armor offers a robust, heat-resistant casing for MPRF DataTrace data loggers. Each data logger unit is designed to not only protect the electronics of the logger, but also to provide the user with greater convenience placing the logger probe within the product and positioning the logger within the process.

Included in the system:

- MPRF real-time data loggers with customizable probe lengths complete with DataTrace Logger Armor technology
- Complete DT Pro software package
- PC Interface
- DataTrace Repeaters

Combining our data logger technology with Mesa's powerful DT Pro software allows the user several key advantages including: thermal mapping, pre-process calibration checks, real-time cycle data delivery, and the ability to accurately and quickly predict cook finish times.

## DT Sentinel



## MPRF Armored Flex Logger Specifications

**Operating Temperature:**

0°C to +100°C (-32°F to +212°F) Up to 140°C available upon request

**Temperature Accuracy:**

±0.27°C (±0.5°F)

**Operating Pressure:**

Up to 10 BAR

**Wireless Range:**

100 feet (30 meters) Line of Sight

**Radio Frequency:**

2.4 GHz ISM Band

**Physical****Size:**

Width: 1.5 in (38.1mm)

Length: 5.27 in (133.85mm)

**Weight:**

10.4 oz (294.8 grams)

**Material:**

316 stainless steel and ULTEM or PCTFE

Tecaform armor, Teflon or silicone shielding

**Mechanical****Calibration:**

Factory calibrated (NIST traceable) Field Calibration

**Battery Type:**

AA Lithium (field-replaceable)

**Battery Life:**

6 months to 1 year (depending on usage)

**Clock accuracy:**

10 seconds per 24 hours (25°C)

**Certifications:**

FCC Class B digital device (part 15 compliant)

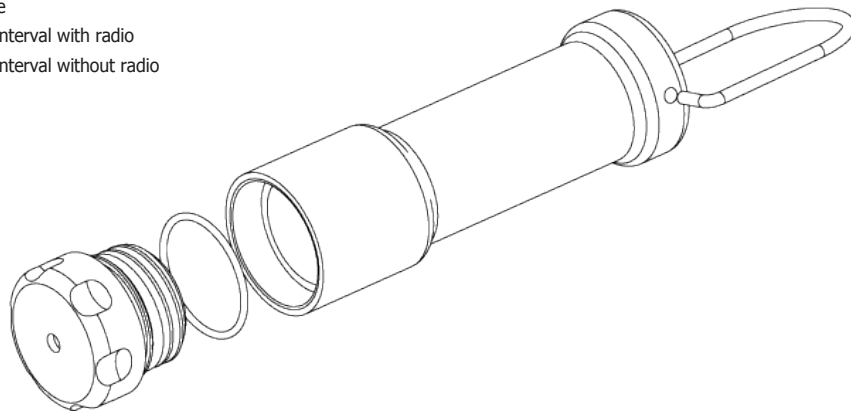
**Monitoring Parameters****Memory:**

1,532 time/temperature observations (Unlimited time/temperature observations under normal operation with no radio)

**Sample rates:**

Operator programmable

- 5 sec. to 1 hour interval with radio
- 1 sec. to 1 hour interval without radio



All specifications subject to change without notice. DataTrace is a registered trademark and Micropack RF is a trademark of Mesa Laboratories, Inc. All other trademarks and registered trademarks are the sole property of their respective owners.

© Copyright 2016 Mesa Laboratories, Inc.



21 CFR Part 11 Compliant

## Network Repeater Specifications

<p><b>Operating Temperature:</b> -40°C to +80°C</p> <p><b>Operating Pressure:</b> Ambient</p> <p><b>Wireless Range:</b> 1000 feet</p> <p><b>Radio Frequency:</b> 2.4 GHz ISM Band</p>	<p><b>Mechanical</b></p> <p><b>Battery Type:</b> C-cell (field-replaceable) AC Powered</p> <p><b>Battery Life:</b> 5 days or AC Power</p> <p><b>Clock accuracy:</b> Same as host PC</p> <p><b>Certifications:</b> FCC Class B digital device (part 15 compliant)</p>
<p><b>Physical</b></p> <p><b>Size:</b> Antenna: 5.4" Box Height w/ Ant: 3.47" Box Height: 3.15" Box Width: 3.22" Box Depth: 2.21" Box Width w/ Button: 3.95"</p> <p><b>Weight:</b> 3.1 oz (89 grams)</p> <p><b>Material:</b> ABS &amp; polycarbonate Water-resistant*</p>	<p><b>Rated Antennas</b></p> <p>9 dB monopole 7 dB monopole 3 dB monopole DT Antenna Antenna inside Repeater</p> <p>*Water-resistant only on request, requires antenna inside Repeater option</p>

## Intenna Specifications

	<b>Waterproof</b>	<b>Standard (Low Loss)</b>
<b>Operating Temperature</b>	-55°C to 150°C*	-55°C to 150°C*
<b>Signal Loss</b>	3 dB/10ft	1.83 dB/10ft
<b>Radio Frequency</b>	2.4 GHz ISM Band	2.4 GHz ISM Band
<b>Length</b>	10 feet	10 feet or 20 feet
<b>Diameter</b>	0.082"	0.175"
<b>Material</b>	Teflon Insulated	Teflon Insulated
<b>Certifications</b>	FCC Class B digital Device (Part 15 Compliant)	

## PC Requirements

**Operating Temperature:**  
-40°C to +80°C

**Operating Pressure:**  
Ambient

**Wireless Range:**  
1000 feet

**Operating Temperature:**  
-40°C to +80°C

**Operating Pressure:**  
Ambient

**Wireless Range:**  
1000 feet