# **fisher**brand



# Keep Your Research on Track

Fisherbrand Traceable Products



Fisherbrand<sup>™</sup> Traceable<sup>™</sup> products are manufactured to the highest standards and undergo rigorous quality assurance testing to meet your exact needs.

A **Traceable Calibration Certificate** is provided with any Traceable product that you purchase. The Traceable certificate indicates that the product is traceable to the standards of the National Institute of Standards and Technology (NIST), a U.S. Government agency within the Commerce Department. Thermometer, timer, and humidity meter certificates are produced in laboratories that meet ISO/IEC 17025:2005 requirements and are accredited by the American Association for Laboratory Accreditation (A2LA). Traceable certificates must comply with ANSI/NCSL Z540-1 requirements.

The Fisherbrand Traceable product line includes timers, stopwatches, clocks; datalogging, bench, differential, and printing thermometers; hygrometers; barometers; conductivity meters, pH and conductivity standards, and calipers and other measurement tools.

Visit **fishersci.com/fisherbrand** or **fishersci.ca/fisherbrand** to see the full collection of Fisherbrand<sup>™</sup> products.

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# Traceable Certificate Overview

# A Traceable<sup>™</sup> certificate ensures complete testing and calibration of your chosen product.

Traceable Products have an individually numbered Traceable certificate provided with each unit that assures accuracy from an ISO/IEC 17025:2017(1750.01) calibration laboratory accredited by A2LA. It indicates traceability of measurements to the SI units through NIST or other recognized national measurement institutes (NMI) that are signatories to the CIPM Mutual Recognition Agreement. Each product goes through an intense vetting process before it can carry the Traceable name, thus saving you both time and money by not having to calibrate separately.

Accredited by A2LA (1750.01)
(The American Association for Laboratory Accreditation), dedicated to "one test accepted everywhere, one accreditation accepted everywhere." A2LA is your assurance of internationally recognized technical laboratory competence.

A2LA is recognized by ILAC and MRA.

Displays **catalog number** for complete product reference.

Itemizes the **test equipment** used for calibration.

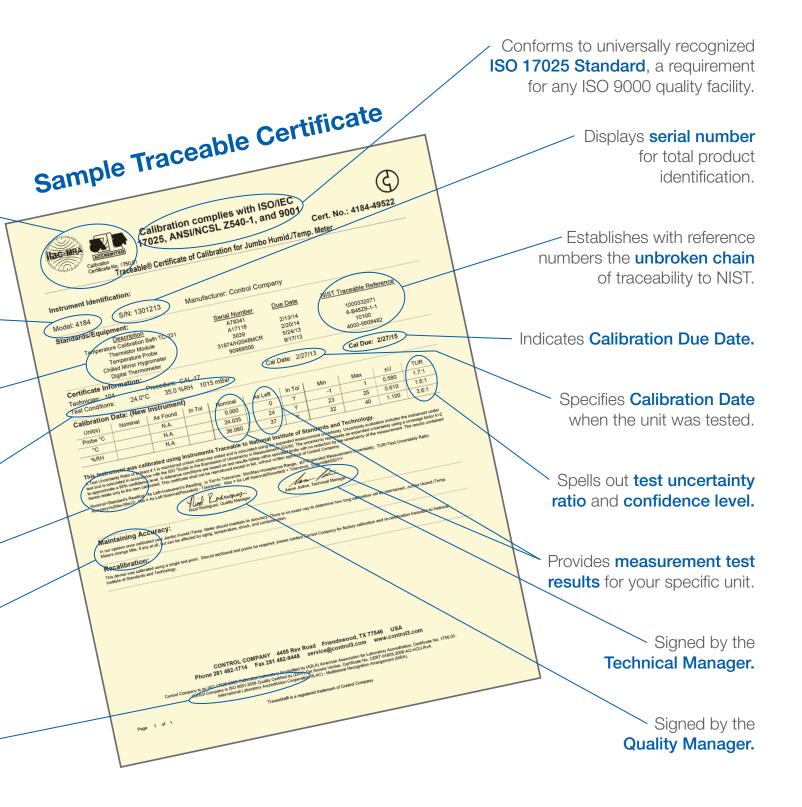
Reports **environmental conditions** at the time of measurement.

Spells out test uncertainty ratio and confidence level.

Lists **specific conditions**that may affect product accuracy.

Supplied from an ISO 9001 quality facility certified by DNV GL.





# TraceableLive Products

# **Get Connected Get Notified** Get TraceableLIVE®

# **TraceableLIVE Cloud Service**



## Stay connected to your critical environments — wherever you go!

- Alerts: out of range conditions, connectivity interruption,
   Unlimited scalability use dataloggers in individual low battery, calibration due
- TraceableLIVE cloud-based application no local software required; web, Android, iOS data visibility
- Receive mobile push/email/text notifications
- Continuous data transmission and monitoring using SSL-encrypted SECURE connection
- labs or an entire network of facilities
- TraceableLIVE Cloud Service compatible dataloggers provided with multi-point calibration traceable to NIST

#### TraceableLIVE Subscription Cost through traceablelive.com

#### Standard Premium FREE \$8.99/month \$22.00/month Features Features Email and Push Alarms Email and Push Alarms Email and Push Alarms SMS Text Notifications SMS Text Notifications \*\$2+/month SMS Text Notifications Unlimited Data Storage Unlimited Data Storage Unlimited Data Storage **UNLIMITED DEVICES UNLIMITED DEVICES** UNLIMITED DEVICES UNLIMITED USERS **UNLIMITED USERS** UNLIMITED USERS ✓ Graphical UI to Analyze Data Graphical UI to Analyze Data Graphical UI to Analyze Data Summary Data Display: MIN/MAX, Summary Data Display: MIN/MAX, Summary Data Display: MIN/MAX, Kinetic Mean, Time in Alarm Kinetic Mean, Time in Alarm Kinetic Mean, Time in Alarm 21 CFR Part 11 Compliance x 21 CFR Part 11 Compliance 21 CFR Part 11 Compliance



# Monitoring Made Easy with Real-time Text, Email, and Push Alerts

When you can't be there, TraceableLIVE **ALERTS YOU** via your smartphone, tablet, or computer at any time, anywhere...

### TraceableLIVE provides simple, digital monitoring of

Refrigerator/Freezers • ULT Freezers • Vaccines • Chemical Storerooms • Liquid Nitrogen Storage • Controlled Warehouses





# Traceable Datalogger Meters



The Fisherbrand™ series of Traceable Temperature Dataloggers provides an accurate and reliable multi-point record of temperatures and other environmental measures over time to help monitor quality and output. They are widely used in many research and academic laboratories, and food processing, medical, agriculture, and environmental work environments.

Most Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Dataloggers store more than 500,000 readings, including the time and date they occurred. Visible flashing and audible alarms alert users to readings outside the user-defined range, and advanced units also record the beginning, end, and duration of any alarm events.

Fisherbrand™ TraceableLIVE™ Digital Dataloggers connect via Ethernet or Wi-Fi and offer users real-time alerts about changes in conditions. No local software is required for continuous data transmission and monitoring using an SSL-encrypted secure connection to cloud-based applications. Receive mobile push, email, and text notifications via web, Android, or iOS. Data access and remote notifications require a TraceableLIVE subscription.

All Fisherbrand Traceable Datalogging Thermometers are individually certified and come with a Traceable certificate.

## TraceableLive Dataloggers

# The simple, efficient, and reliable way to stay connected to critical environments through a smart phone, tablet, or personal computer.

- Monitor temperature and more either locally or remotely by connecting to existing Wi-Fi or via Ethernet with select catalog numbers
- Alerts: temperature alarm, connectivity interruption, low battery, calibration due
- Cloud-based data interface means no local software required; web, Android, Apple iOS data visibility
- Continuous data transmission and monitoring using SSL-encrypted secure connection
- Receive mobile push/email/text notifications
- Unlimited scalability use TraceableLIVE software in individual labs or an entire network of facilities
- Multiple-point temperature calibration traceable to NIST



15-079-615

# Fisherbrand<sup>™</sup> TraceableLIVE<sup>™</sup> Wi-Fi Datalogging Refrigerator/Freezer Thermometers with Remote Notification

Cat. No.	Range	Resolution	Accuracy	Probe		
15-079-615	-50° to +60°C (-58° to +140°F)	0.01°	±0.25°C	2 Bottles (Patented)		
15-079-616	-50° to +60°C (-58° to +140°F)	0.01°	±0.25°C	1 Bottle, 1 Bullet™ Probe		
15-079-617	-50° to +60°C (-58° to +140°F)	0.01°	±0.25°C	2 Bullet Probes		
15-079-618	-50° to +60°C (-58° to +140°F)	0.01°	±0.25°C	2 Stainless-Steel Probes		
Ethernet Cable Thermometer (no Wi-Fi)						
15-079-704	-50° to +60°C (-58° to +140°F)	0.01°	±0.25°C	1 Bottle Probe		



15-079-626

# Fisherbrand™ TraceableLIVE™ Ultra-Low Temperature WiFi Datalogging Thermometer with Remote Notification

Cat. No.	Range	Resolution	Accuracy	Probe
15-079-626	-90.00° to +105.00°C (-130.00° to +221.00°F)	0.01°	±0.1°C	1 Stainless-Steel 316 Probe
15-079-627	-90.00° to +105.00°C (-130.00° to +221.00°F)	0.01°	±0.1°C	2 Stainless-Steel 316 Probes
Ethernet Cable	Thermometer (no Wi-Fi)			
15-079-705	-90.00° to +105.00°C (-130.00° to +221.00°F)	0.01°	±0.1°C	1 Stainless-Steel Probe



# Fisherbrand<sup>™</sup> TraceableLIVE<sup>™</sup> WiFi Datalogging LN2 Thermometer with Remote Notification

Cat. No.	Range	Calibration	Accuracy	Probe
15-079-639	-200° to +105°C (-328° to +221°F)	–196°C, –80°C, 0°C, and 100°C (–321°F, –112°F, 32°F, and 212°F)	±0.25°C	1 Stainless-Steel Probe
15-079-640	-200° to +105°C (-328° to +221°F)	–196°C, –80°C, 0°C, and 100°C (–321°F, –112°F, 32°F, and 212°F)	±0.25°C	2 Stainless-Steel Probes

# TraceableLive Dataloggers



# Fisherbrand™ TraceableLIVE™ WiFi Hi-Temp Datalogging Thermometers with Remote Notification

Cat. No.	Range	Resolution	Calibration	Accuracy	Sensor/Probe
15-079-641	0.00° to 300.00°C (32.00° to 572.00°F)	0.01°	0°C, 100°C, 200°C, and 290°C (32°F, 212°F, 392°F, and 554°F)	±0.25°C	1 Platinum RTD Sensor, 1 Stainless-Steel 316 Probe
15-079-642	0.00° to 300.00°C (32.00° to 572.00°F)	0.01°	0°C, 100°C, 200°C, and 290°C (32°F, 212°F, 392°F, and 554°F)	±0.25°C	2 Platinum RTD Sensors, 2 Stainless-Steel 316 Probes



#### 15-079-628



15-079-662

# Fisherbrand<sup>™</sup> TraceableLIVE<sup>™</sup> WiFi Datalogging Hygrometer/Thermometer with Remote Notification

	Temperature Humidity				
Cat. No.	Range	Accuracy	Range	Accuracy	Sensor
15-079-628	0.00° to 55.00°C (32.00° to 131.00°F)	±0.4°C	0.0 to 100% RH	±3% (20 to 80%), Otherwise ± 5%	Ambient Sensor Dongle
15-079-629	0.00° to 55.00°C (32.00° to 131.00°F)	±0.4°C	0.0 to 100% RH	±3% (20 to 80%), Otherwise ± 5%	Humidity/Temperature Sensor with 6' Cable

# Fisherbrand<sup>™</sup> TraceableLIVE<sup>™</sup> WiFi Datalogging CO<sub>2</sub> with Remote Notification

Cat. No.	Parameters	Range	Accuracy	Resolution	Probes
15-079-662	CO <sub>2</sub>	0 to 10,000 ppm	4% Reading +100ppm	1ppm	Ambient Sensor Dongle
	Temperature	0° to 50°C (32° to 122°F)	± 0.4°C	0.01°	
	Humidity	0 to 100%	±3% RH (5 to 75%) Otherwise ±5% RH	0.01% RH	
15-079-663	CO <sub>2</sub>	0 to 20%	4% Reading +100ppm	0.01%	CO <sub>2</sub> /Temperature/
	Temperature	0° to 50°C (32° to 122°F)	±0.4°C	0.01°	Humidity Remote Sensor with 3' Cable
	Humidity	0 to 100% RH	±3% RH (5 to 75%) Otherwise ±5% RH	0.01% RH	

# Fisherbrand™ TraceableLIVE™ WiFi Datalogging: Barometric Pressure, with Remote Notification



15-079-664

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## Traceable Hub Monitoring System



# Premier flexible solution in sensing and data collection.

- Traceable Hub links up to 10 discrete Bluetooth Low Energy (BLE) sensors for monitoring refrigerator/freezer temperatures, humidity/temperature
- Eliminate wires/cables currently connected to your sensors
- Large 5" touchscreen interface allows for easy setup and data visualization
- Hub network includes Ethernet and Wi-Fi (personal and enterprise) connectivity options
- View current conditions anywhere connect to your data via smartphone, tablet, or PC using TraceableLIVE cloud service
- Get alarm notifications—TraceableLIVE Cloud Service sends email, text, and push notifications
- Get accurate, reliable measurements with included A2LA accredited NIST-traceable calibration certificate



# Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Hub Monitoring System Compatible with TraceableLIVE<sup>™</sup> Cloud Service

Cat. No.	Number of Channels	Sensor Range	Dimension	Power
15-079-714	10	30 ft.	4¼ x 1% x 5% in.	100-240 VAC, 50/60Hz

#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Hub Monitoring System Sensors (Requires Monitoring System)

Cat. No.	Range	Resolution	Accuracy	Probe
15-079-715	Temperature Only	-40.00° to 70.00°C (-40.00° to 158.00°F)	0.01°	±0.25°C
<b>15-079-716</b> Temperature		-40.00° to 70.00°C (-40.00° to 158.00°F)	0.01°	±0.25°C
	Humidity	0.0 to 100% RH (Non-Condensing)	0.01% RH	±3% RH (20 to 80% RH) ±5% RH Otherwise

# Traceable Monitoring Selection Guide



#### **MIN/MAX Monitoring**

- Minimum/maximum memory
- High/Low alarms

#### **USB Data Logging**

- Log data continuously
- Download memory data to PC

#### **Cloud Service Monitoring**

- 24/7 remote monitoring
- Built-in VFC reporting

	Traceable Min/Max Memory	Traceable Excursion-Trac USB Data Logging	TraceableLIVE Cloud Service (Wi-Fi or Ethernet)
Page	17–23	13	9–11
Data Storage	Minimum/Maximum (until cleared)	2 Years (resettable)	Unlimited Cloud Storage
User Interface	Local Display	Local Display	Local Display, Web, Smartphone
Alarms	Audible, Visual	Audible, Visual	Email, SMS Text, Push Notification, Audible, Visual
Data Output	None (Pen & Paper)	USB Datastick to Excel file	Real-Time Graphs, Reports, Alarm History, Statistics, Audit Trail, Cal Due Notice
Email/Text Alerts	×	×	✓
NIST Traceable Calibration Cert	<b>√</b>	✓	✓
Vaccine for Children Compliant	×	✓	✓
21 CFR 11 Compliant Options	×	(Available on Memory-Loc options—see fishersci.com)	✓
Fridge/Freezer	06-664-11	15-081-123	Wi-Fi: 15-079-615 Ethernet: 15-079-704
Ultra Low Freezer -80°C	15-081-108	15-079-624	Wi-Fi: 15-079-626 Ethernet: 15-079-705
Liquid Nitrogen Dewar	×	15-079-669	15-079-639
Room Monitoring & Incubators			
Temperature	13-310-359	15-081-123	15-079-616
Temperature/Humidity	15-079-630	15-079-665	15-079-628
Temperature/Humidity/ Pressure	14-650-118	15-079-666	15-079-664
CO <sub>2</sub> Incubator	×	×	15-079-662



# Traceable Excursion-Trac Datalogging Thermometers

#### Datalogging thermometers with user-defined time intervals.

- · Meets current CDC requirements for vaccine storage and monitoring
- Rolling memory structure, maintains most recent 525,600 temperature observations
- Stores up to ten unique alarm events
- Memory can be cleared on unit after downloading data to USB stick
- · Hassle-free retrieval of data; unit can remain in use while downloading and analyzing data
- Status indicators: low battery, memory full, USB data transfer, and active alarm state
- Traceable to NIST for accuracy



#### 15-081-123

#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Excursion-Trac<sup>™</sup> Datalogging Thermometers

Cat. No.	Range	Resolution	Accuracy	Probe
15-081-123	-50.00° to +70.00°C (-58.00° to +158.00°F)	0.01°	±0.25°C	1 Bottle Probe
15-081-124	-50.00° to +70.00°C (-58.00° to +158.00°F)	0.01°	±0.25°C	2 Bottle Probes
15-081-125	-50.00° to +70.00°C (-58.00° to +158.00°F)	0.01°	±0.25°C	1 Bullet Probe, D x L: 5/16 in. x 3/4 in.
15-081-126	-50.00° to +70.00°C (-58.00° to +158.00°F)	0.01°	±0.25°C	2 Probes, D x L: 5/16 in. x 3/4 in.
15-081-127	-50.00° to +70.00°C (-58.00° to +158.00°F)	0.01°	±0.25°C	2 Probes (Bottle Probe and 1 D x L: 5/16 in. x 3/4 in. Probe)
15-081-128	-50.00° to +70.00°C (-58.00° to +158.00°F)	0.01°	±0.25°C	1 Stainless-Steel Probe
15-081-129	-50.00° to +70.00°C (-58.00° to +158.00°F)	0.01°	±0.25°C	2 Stainless-Steel Probes
15-079-656	-50.00° to +70.00°C (-58.00° to +158.00°F)	0.01°	±0.25°C	1 Glass Vaccine Bottle Probe
15-079-657	-50.00° to +70.00°C (-58.00° to +158.00°F)	0.01°	±0.25°C	2 Glass Vaccine Bottle Probes
15-079-660	-50.00° to +70.00°C (-58.00° to +158.00°F)	0.01°	±0.25°C	1 Plastic Bottle Probe
15-079-661	-50.00° to +70.00°C (-58.00° to +158.00°F)	0.01°	±0.25°C	2 Plastic Bottle Probes



15-079-624

#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Excursion-Trac<sup>™</sup> Ultra-Low Temperature USB Datalogging Refrigerator/Freezer Thermometers

Cat. No.	Range	Resolution	Accuracy	Probe
15-079-624	-90° to +105°C (-130° to +221°F)	0.01°	±0.2°C	1 Probe
15-079-625	-90° to +105°C (-130° to +221°F)	0.01°	±0.2°C	2 Probes



#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> LN2 Excursion-Trac<sup>™</sup> Datalogging Thermometer

Cat. No.	Range	Resolution	Calibration	Accuracy	Probe
15-079-669	-200° to +105°C (-328° to +221°F)	0.01°	–196°C, –80°C, 0°C, and 100°C (–321°F, –112°F, 32°F, and 212°F)	±0.25°C	1 Stainless-Steel Probe
15-079-670	-200° to +105°C (-328° to +221°F)	0.01°	-196°C, -80°C, 0°C, and 100°C (-321°F, -112°F, 32°F, and 212°F)	±0.25°C	2 Stainless-Steel Probes

### Traceable Memory-Loc Datalogging Thermometers

# Datalogging thermometers that can be used in 21 CFR 11 environments.

- Datalogging thermometers with fixed one-minute timing intervals
- Meets current CDC requirements and additional recommendations for vaccine storage and monitoring
- Raw data is locked and cannot be cleared or changed on base unit
- Stores up to ten unique alarm events

- Capable of storing over 1 million temperature observations
- Hassle-free retrieval of data; unit can remain in use while downloading and analyzing data
- Status indicators: low battery, low memory, USB data transfer, and active alarm state
- Traceable to NIST for accuracy



#### 15-079-619

#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Memory-Loc<sup>™</sup> Datalogging Thermometers

Cat. No.	Range	Resolution	Accuracy	Probe
15-079-619	-50.00° to +70.00°C (-58.00° to +158.00°F)	0.01°	±0.25°C	1 Vaccine Bottle Probe
15-079-620	-50.00° to +70.00°C (-58.00° to +158.00°F)	0.01°	±0.25°C	2 Vaccine Bottle Probes
15-081-130	-50.00° to +70.00°C (-58.00° to +158.00°F)	0.01°	±0.25°C	1 Bottle
15-081-131	-50.00° to +70.00°C (-58.00° to +158.00°F)	0.01°	±0.25°C	2 Bottles
15-081-132	-50.00° to +70.00°C (-58.00° to +158.00°F)	0.01°	±0.25°C	1 Probe, D x L: 5/16 in. x 3/4 in.
15-081-133	-50.00° to +70.00°C (-58.00° to +158.00°F)	0.01°	±0.25°C	2 Probes, D x L: 5/16 in. x 3/4 in.
15-081-134	-50.00° to +70.00°C (-58.00° to +158.00°F)	0.01°	±0.25°C	2 Probes, (1 Bottle Probe, 1 D x L: 5/16 in. x 3/4 in. Probe)
15-081-135	-50.00° to +70.00°C (-58.00° to +158.00°F)	0.01°	±0.25°C	1 Stainless-Steel Probe
15-081-136	-50.00° to +70.00°C (-58.00° to +158.00°F)	0.01°	±0.25°C	2 Stainless-Steel Probes
15-079-660	-50.00° to +70.00°C (-58.00° to +158.00°F)	0.01°	±0.25°C	1 Plastic Bottle Probe
15-079-661	-50.00° to +70.00°C (-58.00° to +158.00°F)	0.01°	±0.25°C	2 Plastic Bottle Probes



# Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Memory-Loc<sup>™</sup> Ultra-Low Temperature USB Datalogging Refrigerator/Freezer Thermometers

Cat. No.	Range	Resolution	Accuracy	Probe	
15-079-622	-90° to +105°C (-130° to +221°F)	0.01°	±0.2°C	1 Probe	
15-079-623	-90° to +105°C (-130° to +221°F)	0.01°	±0.2°C	2 Probes	



#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Memory-Loc<sup>™</sup> LN2 Datalogging Thermometer

Cat. No.	Range	Resolution	Calibration	Accuracy	Probe
15-079-671	-196° to +105°C (-321° to +221°F)	0.01°	–196°C, –80°C, 0°C, and 100°C (–321°F, –112°F, 32°F, and 212°F)	±0.25°C	1 Probe
15-079-672	-196° to +105°C (-321° to +221°F)	0.01°	–196°C, –80°C, 0°C, and 100°C (–321°F, –112°F, 32°F, and 212°F)	±0.25°C	2 Probes



# TraceableOne Single-Use Dataloggers

# Use logger right out of the box to track environmental conditions of reagents, clinical samples, vaccines, pharmaceuticals, and food items during transit.

- Logger generates PDF report, which can be downloaded directly to your PC—no software required
- Compact, single-use datalogger
- Flashing red and green LEDs indicate if logger is recording data, has stopped recording, and if an alarm has been triggered
- Simply press start to begin recording crucial temperature data, 30-minute time delay before logging begins
- Status indicators: low battery, low memory, USB data transfer, and active alarm state
- Traceable to NIST for accuracy



#### Example Report



### Fisherbrand™ TraceableOne™ Single-Use Dataloggers

Cat. No.	Range	Resolution	Accuracy	Alarm Type	Data Memory	Quantity
15-079-681	-30°C to 70°C (-22° to +158°F)	0.01°	$\pm 0.5^{\circ}\text{C}$ from $-20^{\circ}$ to $40^{\circ}\text{C}$ , Otherwise $\pm 1^{\circ}\text{C}$	Preprogrammed 2° to 8°C	Logging Interval of 1 Minute, Logging Duration of 10 Days	Pack of 40
15-079-682	-30°C to 70°C (-22° to +158°F)	0.1°	±0.5°C from –20° to 40°C, Otherwise ±1°C	Preprogrammed -20°C to -15°C	Logging Interval of 1 Minute, Logging Duration of 10 Days	Pack of 40
15-079-683	-30°C to 70°C (-22° to +158°F)	0.01°	±0.5°C from -20° to 40°C, Otherwise ±1°C	Preprogrammed 2° to 8°C	Logging Interval of 3 Minutes, Logging Duration of 30 Days	Pack of 40
15-079-684	-30°C to 70°C (-22° to +158°F)	0.1°	Otherwise ±1°C		Logging Interval of 3 Minutes, Logging Duration of 30 Days	Pack of 40
15-079-685	-30°C to 70°C (-22° to +158°F)	0.1°	±0.5°C from –20° to 40°C, Otherwise ±1°C	Preprogrammed 2°C to 8°C	Logging Interval of 6 Minutes, Logging Duration of 60 Days	Pack of 40
15-079-686	-30°C to 70°C (-22° to +158°F)	0.1°	±0.5°C from -20° to 40°C, Otherwise ±1°C	Preprogrammed –20°C to –15°C	Logging Interval of 6 Minutes, Logging Duration of 60 Days	Pack of 40
15-079-687	-30°C to 70°C (-22° to +158°F)	0.1°	±0.5°C from -20° to 40°C, Otherwise ±1°C	Preprogrammed 2°C to 8°C	Logging Interval of 10 Minutes, Logging Duration of 90 Days	Pack of 40
15-079-689	-30°C to 70°C (-22° to +158°F)	0.01°	±0.5°C from -20° to 40°C, Otherwise ±1°C	Preprogrammed 2° to 8°C	Logging Interval of 1 Minute, Logging Duration of 10 Days	Pack of 10
15-079-690	-30°C to 70°C (-22° to +158°F)	0.01°	±0.5°C from -20° to 40°C, Otherwise ±1°C	Preprogrammed –20° to –15°C	Logging Interval of 1 Minute, Logging Duration of 10 Days	Pack of 10
15-079-691	-30°C to 70°C (-22° to +158°F)	0.01°	±0.5°C from -20° to 40°C, Otherwise ±1°C	Preprogrammed 2° to 8°C	Logging Interval of 3 Minutes, Logging Duration of 30 Days	Pack of 10
15-079-692	-30°C to 70°C (-22° to +158°F)	0.01°	±0.5°C from -20° to 40°C, Otherwise ±1°C	Preprogrammed –20° to –15°C	Logging Interval of 3 Minutes, Logging Duration of 30 Days	Pack of 10
15-079-695	-30°C to 70°C (-22° to +158°F)	0.01°	±0.5°C from -20° to 40°C, Otherwise ±1°C	Preprogrammed 2° to 8°C	Logging Interval of 10 Minutes, Logging Duration of 90 Days	Pack of 10
15-079-696	-30°C to 70°C (-22° to +158°F)	0.01°	±0.5°C from -20° to 40°C, Otherwise ±1°C	Preprogrammed -20° to -15°C	Logging Interval of 10 Minutes, Logging Duration of 90 Days	Pack of 10

### TraceableGO Bluetooth Devices

#### Fill in the unknowns between destinations.

- Critical information (Temperature, Trip Duration, MIN/MAX, Battery Level, and Alarms) displayed on LCD at all times
- Simple, single-button use
- Safely transport reagents, clinical samples, vaccines, pharmaceuticals, and food items to any location
- TraceableGO Bluetooth devices are pre-programmed with alarm values; alarm values are user-adjustable.
- Compatible with TraceableGO or TraceableLIVE mobile apps:
  - Once the trip has ended, users may export the data

- App immediately identifies if the contents experienced conditions outside user-defined parameters
- View if an alarm was triggered
- Generate an instant data report
- Device stores up to 90 alarm events, records readings once every 5 minutes by default, or the user may adjust the reading interval between one minute to once every 12 hours
- Logging duration is 227 days (7.5 months)



#### 15-079-678

#### Fisherbrand<sup>™</sup> TraceableGO<sup>™</sup> Bluetooth Devices

Cat. No.	Description	Range	Resolution	Accuracy
15-079-678	Temperature Datalogger with Calibration and Ambient Sensor	-20° to +70°C (-4° to 158°F)	0.01°	$\pm 0.4^{\circ}\text{C}$ Between –10° and 70°C, Otherwise $\pm 0.5^{\circ}\text{C}$
15-079-700	Temperature Datalogger with Calibration and Bullet Probe	-50° to +70°C (-58° to 158°F)	0.01°	±0.3°C
15-079-679	Hygrometer/Temperature Datalogger with Calibration and Ambient Sensor	-20° to +70°C (-4° to 158°F)	0.1°	±0.4°C Between -10° and 70°C, Otherwise ±0.5°C
		0 to 95% RH	0.1% RH	±3% (5 to 75%), Otherwise ±5% RH
15-079-701	Temperature Datalogger with Calibration and Bottle Probe	-50° to +70°C (-58° to 158°F)	0.1°	±0.3°C
15-079-702	Temperature Datalogger with Calibration and Platinum Probe	-50° to +70°C (-58° to 158°F)	0.1°	±0.2°C

#### **App Features and Pricing**

TraceableGO App Free Download



### FREE

**Features** 

#### Configure datalogger:

- Set alarm
- · Change logging interval
- Toggle between °C/°F
- Start/Stop options
- Memory wrap
- Export, email, and save PDF to mobile device
- 21 CFR Part 11 Compliance
- Unlimited cloud data storage ×
- Data download to CSV or secured PDF
- Graphical UI to analyze data ×
- Summary data display: MIN/MAX,
- kinetic mean, time in alarm
- Storage of trip parameters

#### TraceableLIVE App Free Download



# month

**Features** 

#### Configure datalogger:

- Set alarm
- Change logging interval
  - Toggle between °C/°F
  - Start/Stop options
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- Export, email, and save PDF to mobile device
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- Data download to CSV or secured PDF
- Graphical UI to analyze data
- Summary data display: MIN/MAX, kinetic mean, time in alarm
- Storage of trip parameters



# Traceable Refrigerator/Freezer Thermometers



All Fisherbrand™ Traceable™ Refrigerator/Freezer Thermometers are individually certified ensuring that the thermometer has been properly calibrated to give trusted results. Please refer to the selection guide below to choose the right thermometer for your particular application.

# Selection Guide for Traceable Refrigerator/Freezer and Vaccine Probe Thermometers

Cat. No.	Page	Traceable Certificate Supplied	Range	Resolution	Accuracy	Probe Length	Cable Length	Probe Style	Battery	Alarm	Display Min/Max
15-078-215	18	Yes	-50° to 70°C (-58° to 158°F)	0.01°	±0.3°C	63mm	3m	Bottle	15348754	Yes	Yes
15-078-176	18	Yes	-50° to 70°C (-58° to 158°F)	0.01°	±0.3°C	63mm	3m	Bottle	15358754	Yes	Yes
15-078-177	18	Yes	-50° to 70°C (-58° to 158°F)	0.01°	±0.3°C	19mm	3m	Bullet	15348754	Yes	Yes
14-650-103	18	Yes	-50° to 70°C (-58° to 158°F)	0.1°	±0.5°C	63mm	3m	Bottle	15348754	Yes	Yes
14-650-104	18	Yes	-50° to 70°C (-58° to 158°F)	0.1°	±0.5°C	63mm	3m	Bottle	15348754	Yes	Yes
06-664-23	20	Yes	-50° to 70°C (-58° to 158°F)	0.1°	±0.5°C	63mm	3m	Bottle	15348754	Yes	Yes
06-664-269	20	Yes	-50° to 70°C (-58° to 158°F)	0.1°	±0.5°C	19mm	3m	Bullet	15348754	Yes	Yes
15-077-721	20	Yes	-50° to 70°C (-58° to 158°F)	0.1°	±0.5°C	33mm	3m	Vaccine Bottle (5mL)	15348754	Yes	Yes
06-664-11	19	Yes	-50° to 70°C (-58° to 158°F)	1°	±1°C	63mm	3m	Bottle	15358754	Yes	Yes
15-077-8D	19	Yes	-50° to 70°C (-58° to 158°F)	1°	±1°C	19mm	3m	Bullet	15358754	Yes	Yes
15-077-720	19	Yes	-50° to 70°C (-58° to 158°F)	1°	±1°C	33mm	3m	Vaccine Bottle (5mL)	15358754	Yes	Yes
15-081-106	20	Yes	-50° to 70°C (-58° to 158°F)	0.01°	±0.1°C	63mm	3m	Bottle	15348754	Yes	Yes
15-081-107	20	Yes	-50° to 70°C (-58° to 158°F)	0.01°	±0.25°C	19mm	3m	Bullet	15348754	Yes	Yes
15-081-109	21	Yes	-100° to 70°C (-148° to 158°F)	0.01°	±0.25°C	19mm	3m	Bullet	15348754	Yes	Yes
14-648-233	22	Yes	-50° to 70°C (-58° to 158°F)	0.1°	±1°C	63mm	3m	Bottle	15348754	Yes	Yes
06-664-255	22	Yes	-30° to 70°C (-22° to 158°F)	0.1°	±1°C	63mm	N/A	Bottle	15338754	No	Yes

### Traceable Hi-Accuracy Refrigerator/Freezer Thermometer

### Simultaneous high-accuracy temperature monitoring in two areas.

- Triple display shows current and MIN/MAX temperatures
- Monitors readings for any period; displays time/date of temperature outliers
- Temperature range: -50° to +70°C (-58° to +158°F); resolution: 0.01°; accuracy: ±0.3°C
- Temperature programmable in 0.01° increments

- Alarms continuously even after the temperature is again within range
- Equipment doors can be closed on the 10 ft. micro-cable
- · High-impact, chemical resistant ABS plastic case
- Includes: micro-cable, stand, hook-and-loop tape, magnetic strips, wall mount, two AA batteries, Traceable certificate



15-078-215

#### Fisherbrand™ Traceable™ Hi-Accuracy Refrigerator/Freezer Thermometer

Cat. No.	Probes
15-078-215	1 Bottle Probe*
15-078-176	2 Bottle Probes*
15-078-177	2 Bullet™ Probes
15-078-177	

\*Probe is sealed in a 10mL bottle filled with nontoxic glycol.

### Traceable Refrigerator/Freezer Ultra Thermometers

#### Thermometer simultaneously monitors two different areas.

- Triple display shows current and MIN/MAX temperatures
- Monitors readings for any period; displays time/date of temperature outliers
- Temperature range: -50° to +70°C (-58° to +158°F); resolution: 0.01°
- Accuracy between -30° to +50°C, ±0.5°C; otherwise ±1°C
- Temperature programmable in 0.01° increments

- Alarms continuously even after the temperature is again within range
- Equipment doors can be closed on the 10 ft. micro-cable
- · High-impact, chemical resistant ABS plastic case
- Includes: flip-open stand, hook-and-loop tape, magnetic strips, wall mount, two AAA batteries, Traceable certificate



14-650-103

### Fisherbrand™ Traceable™ Refrigerator/Freezer Ultra™ Thermometers

	Cat. No.	Probes
	14-650-103	1 Bottle Probe*
	14-650-104	2 Bottle Probes*
)	14-650-105	1 Bullet™ Probe
	14-650-106	2 Bullet Probes
	14-650-107	1 Bottle Probe*, 1 Bullet <sup>™</sup> Probe
	14-650-108	1 Vaccine Bottle Probe
	14-650-109	2 Vaccine Bottle Probes

\*Probe is sealed in a 10mL bottle filled with nontoxic glycol



### Traceable Vaccine Refrigerator/Freezer Thermometer

# Monitors vaccine temperatures in refrigerators, freezers, water baths, and other incubators.

- Triple display simultaneously shows current and MIN/MAX temperatures
- Temperature range: -50° to +70°C (-58° to +158°F); resolution: 1°; accuracy: ±1°C
- Toggle between Fahrenheit and Celsius units
- Bottle probes are insulated from rapid temperature changes

- Equipment doors can be closed on the 10 ft. micro-cable
- MIN/MAX memory records for any time period
- Alarms can be set in 1° increments
- Alarm sounds continuously when temperature exceeds set points; turns off manually
- High-impact, chemical-resistant ABS plastic case



#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Vaccine Refrigerator/Freezer Thermometer

Cat. No.	Probes
15-077-720	1 Vaccine Bottle Probe**
06-664-11	1 Bottle Probe*
Probe is sealed in a 10mL bottle filler	with nontoxic glycol.

\*\*Probe is sealed in a 5mL bottle filled with nontoxic glycol.

### Traceable Digital Thermometers with Bullet Probe

### Digital screen is visible from 25 feet.

- Triple display simultaneously shows current and MIN/MAX temperatures
- · Displays ambient or probe temperature
- Temperature range: -50° to +70°C (-58° to +158°F); resolution: 1°; accuracy: ±1°C
- Alarms can be set in 1° increments; sounds for 12 hours even after the temperature is again within range
- Includes: stand, hook-and-loop tape, slot for wall mount, two AA batteries, Traceable certificate



#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Digital Thermometers with Bullet<sup>™</sup> Probe

Cat. No.	Probes
15-077-8D	1 Bullet™ Probe with 10 ft. (3m) Cable

15-077-8D

## Traceable Refrigerator/Freezer Plus Thermometer

# Accurate temperature monitoring for refrigerator, freezers, water baths, and incubators.

- Triple display simultaneously shows current, high, and low temperatures
- Minimum and maximum temperature memory
- Temperature range: -50° to +70°C (-58° to +158°F); resolution: 1°; accuracy: ±0.5°C
- High and low temperature alarm programmable in one-degree increments



06-664-23

#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Vaccine Refrigerator/Freezer Thermometer

Cat. No.	Probes
06-664-23	1 Bottle Probe
06-664-269	1 Bullet™ Probe**
<b>15-077-721</b> 1 Vaccine Bottle Probe**	

<sup>\*\*</sup>Probe is sealed in a 5mL bottle filled with nontoxic glycol

## Traceable Platinum Refrigerator/Freezer Thermometers

# Store and display MIN/MAX readings hourly for the last 24 hours, daily for the last seven to 31 days.

- Time/date stamp for all MIN/MAX temperatures
- Temperature range: -50° to +70°C (-58° to +158°F); resolution: 0.01°; accuracy: ±0.1°C
- Set alarm in 0.1° increments

- Visual and audible alarms sound when temperature exceeds set points; continues even after temperature is again within range
- Includes: platinum RTD stainless-steel probe, batteries, hook-and-loop tape, magnetic strips, stand, Traceable certificate



15-081-106

#### Fisherbrand™ Traceable™ Platinum Refrigerator/Freezer Thermometers

Cat. No.	Probes
15-081-106	1 Bottle Probe
15-081-107	1 Bullet™ Probe



# Traceable Platinum High-Accuracy Refrigerator/Freezer Thermometer with Probe

### Platinum and stainless-steel probe for accurate readings with tip penetration of 0.3 in.

- Time/date stamp for all MIN/MAX temperatures
- Temperature range: -100° to +199.99°C (-148° to +391.98°F); resolution: 0.01°; accuracy: ±0.1°C
- Set alarm in 0.1° increments

- Visual and audible alarms sound when temperature exceeds set points; continues even after temperature is again within range
- Includes: platinum sensor and stainless-steel probe, stand, wall mount, batteries, Traceable certificate



# Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Platinum High-Accuracy Refrigerator/Freezer Thermometer with Probe

Cat. No.	Probes	
15-081-108	0.13 x 9 in. Probe with Stainless-Steel Handle	
15-081-109	1 Bullet <sup>™</sup> Probe	

### Traceable Precision Sentry Digital Thermometers

# Digital thermometers constantly monitor and display current, minimum, and maximum temperatures.

- Temperature range: -50° to 60°C (-58° to 140°F); accuracy: ±0.5°C from -20° to 60°C, ±1°C otherwise; resolution: 0.1°
- Simple one-key MIN/MAX resets
- · Use either the internal or external temperature sensor
- Easily toggle between °F and °C
- View battery status at a glance
- Includes NIST-Traceable certificate from A2LA accredited (1750.01) calibration laboratory NIST-traceable calibration



#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Precision Sentry<sup>™</sup> Digital Thermometers

Cat. No.	Probes
15-079-708	Bullet <sup>™</sup> Probe
15-079-709	Bottle Probe
15-079-710	Vaccine Bottle Probe

## Traceable Jumbo Refrigerator/Freezer Thermometers

#### Jumbo-sized 1.5 in. digits are visible from 30 ft. (9m).

- Triple display simultaneously shows ambient, current, and MIN/MAX temperatures
- Temperature range: -50° to +70°C (-58° to +158°F); resolution: 0.1°; accuracy: ±1°C
- MIN/MAX records for any time period

- Alarm feature provides alert when temperature rises above or falls below a set point
- Alarm is programmable in 1° increments
- 10 ft. (3m) micro-cable permits refrigerator doors to close on it



#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Jumbo Refrigerator/Freezer Thermometers

Cat. No.	Probes
14-648-232	1 Bullet™ Probe
14-648-233	1 Bottle Probe*
06-664-270	1 Vaccine Bottle Probe**

\*Probe is sealed in a 10mL bottle filled with nontoxic glycol.

\*\*Probe is sealed in a 5mL bottle filled with nontoxic glycol.

14-648-233

## Traceable Digital-Bottle Refrigerator Thermometers

# Innovative thermometer probe is directly submerged in a glycol- or bead-filled bottle.

- Stainless-steel (SS) probe protects high-accuracy thermistor sensor
- Temperature range: -20° to +50°C (-58° to +158°F); resolution: 0.1°; accuracy: ±1°C
- Chemical-resistant ABS plastic base sits upright or can be attached to a vertical surface



06-664-255

### Fisherbrand™ Traceable™ Digital-Bottle™ Refrigerator Thermometers

Cat. No.	Probes	
06-664-255	1 SS Probe in Bottle Filled with Nontoxic Glycol	
06-664-257	1 SS Probe in Bottle Filled with Glass Beads	
Accessories		
02-440-1E	Fisherbrand™ Replacement Battery, 393 Silver-Oxide Button Cell, 1.5V	



## Traceable Platinum Ultra-Accurate Digital Thermometer

#### Designed for years of reliable service in severe environments.

- Platinum sensors for linear response and accuracy across entire temperature range
- Fast response from waterproof 4-wire platinum and stainless-steel probe
- Probe updates readings three times per second

- Captures MIN/MAX readings every hour for last 24 hours
- Toggle between Fahrenheit and Celsius units
- Membrane-covered keys are splash-proof and easy to operate



#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Platinum Refrigerator/Freezer Thermometers

Cat. No.	Temperature Range	Probes	Probe L x Dia.	Cable Length
15-081-102	−200° to 500°C	1 Platinum Handle Probe	7 x 0.13 in.	6 ft.
15-081-103	–100.0° to 200.0°C	1 Platinum/SS 316 Probe	5.875 x 0.25 in.	9 ft.
Accessories				
15-081-104	Replacement Platinum Har	ndle Probe		
15-081-105	Replacement Platinum/SS	316 Probe		
15-077-70	Data Acquisition System (D	AS)		
15-079-651	A/C Adapter with Multiple (	Connectors (Asia, EU, UK, US	5)	

## Traceable Digital Thermometer

### Provides routine measurements with semisolid, liquid, or air/gas.

- Accuracy: ±0.05°C and ±0.09°F; resolution: 0.0001°
- Easy-to-read 0.5 in. high (13mm) LCD
- MIN/MAX memory and HOLD button
- Datalogger with 50 readings and an RS-232 port
- Optional fast-response, stainless-steel, triple-purpose probe readings are updated three times per second
- Includes: stainless-steel probe, 9V alkaline battery, high-impact, chemical-resistant ABS plastic case, Traceable certificate



#### Fisherbrand™ Traceable™ Digital Thermometer

Cat. No.	Temperature Range	
15-077-8	Digital Thermometer	
Accessories		
15-077-70	Data Acquisition System (DAS)	
15-081-122	Replacement Probe for Traceable Digital Thermometer	

### Traceable RTD Platinum Thermometer

#### State-of-the-art aerospace technology delivers high-platinum performance.

- High-precision thermometer
- Temperature range: -100° to 300°C (-148° to 572°F)
- Temperature resolution: 0.01° below 200°C, 0.1° above
- Temperature accuracy: ±0.1% +0.2°C below 200°C
- Fail-safe display shows low battery and probe conditions
- Computer output can be connected to a computer or datalogger
- Includes: platinum RTD probe, battery, Traceable certificate



#### Fisherbrand™ Traceable™ RTD Platinum Thermometer

Cat. No.	Description	
15-077-55	RTD Platinum Thermometer	

# Traceable Kangaroo Thermometer

#### Compact portable thermometer fits in your shirt pocket.

- Stainless-steel probe for acids, bases, and solvents
- Temperature range: -50° to 300°C; resolution: 0.1° (from -19.9° to +199.9°; accuracy: ±1°C (between -30° and +250°C)
- Large inch-high digits are visible from 20 ft.
- Cable (L: 42. In.) retracts into back "pouch" for convenience
- Overall size: 4.5 sq. in.; weight: 2.75 oz. (77.96g)

- Automatically captures and saves MIN/MAX temperature readings over time
- Set high and low alarms in 1° increments
- Alarm sounds every minute until temperature is again within range
- Probe dimensions (L x Dia.): 7.5 x 0.14 in.
- Includes: silver oxide battery and Traceable certificate



# Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Kangaroo<sup>™</sup> Thermometer

Cat. No.	Description
14-649-79	Kangaroo Thermometer

14-649-79

### Traceable Digital Mini-Thermometer

### Compact and easy to read, use as handheld or mount on wall.

- Temperature range: -50° to 150°C (-58° to 302°F)
- Stainless-steel probe is chemically resistant to most acids, bases, and solvents
- Cable length: 18 in. (100mm)
- Includes: silver oxide battery, probe, cable, Traceable certificate



#### Fisherbrand™ Traceable™ Digital Mini-Thermometer

Cat. No.	Description
15-077-32	Digital Mini-Thermometer

## Traceable Water- and Shock-Proof Digital Thermometer

#### All-weather compatible.

- One-key operation
- Stainless-steel probe (L x Dia.: 184 x 3.5mm) attached to 914mm cable
- Temperature range: -50° to 300°C (-58° to 572°F); resolution: 0.1°; accuracy: ±1°C between -20° and 100°C
- Recalls MIN/MAX readings over any time period
- Easy-view LCD digits can be seen at a glance
- Includes: battery, probe, cable, suction cups, magnet, hook-and-loop strips, Traceable certificate



#### Fisherbrand™ Traceable™ Water- and Shock-Proof Digital Thermometer

Cat. No.	Description	
15-077-9E	Water- and Shock-Proof Digital Thermometer	

## Traceable Lollipop Thermometers

# Featherweight with wide range to cover 99% of routine temperature measurements.

- Shock/waterproof unit delivers reading updates every second
- Temperature range: -50° to 300°C (-58° to 572°F); resolution: 0.1°; accuracy: ±1°C to ±4°C
- One-key operation recalls MIN/MAX temperature results
- Toggle between Fahrenheit and Celsius units
- Stainless-steel probe
- Includes: battery, probe, probe cover with pocket clip, Traceable certificate



#### Fisherbrand™ Traceable™ Lollipop Thermometers

Cat. No.	Description
15-079-712	8 in. Integrated 316 Stainless-Steel Probe with Shield
15-079-713	9 ft. Cabled Probe with 5 in. 316 Stainless-Steel Sensor

## Traceable Digital Thermometers with Stainless-Steel Stems

### Easy-to-read handheld digital thermometers.

- Stainless-steel stems are chemically resistant to acids, bases, and solvents
- Digital LCD screens
- Models with short, piercing stems can be carried in your pocket
- Use longer probes for deep vessels or water baths
- For difficult-to-read positions, remove thermometer from matrix before reading
- Includes: stainless-steel stem probe, silver oxide battery, Traceable certificate



# Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Digital Thermometers with Stainless-Steel Stems

Probe Length	Overall Length	Temperature Range	Resolution (Accuracy)	Protective Sleeve
8 in. (20cm)	11 in. (28cm)	−50° to +150°C (−58° to +302°F)	0.1°C (±1°C from -20 to +120°C)	No
			0.1°C (±2°C)	Yes
11.4 in. (28.9cm)	14.4 in.	-50° to +250°C	0.1°C (±1°C)	No
_	(36.5cm)	(-58° to +482°F)	0.1°C (±0.5°C)	No
	8 in. (20cm)	8 in. (20cm) 11 in. (28cm)	Length   8 in. (20cm)	S in. (20cm)

## Traceable 2-Second Temp Food Thermometer

#### NSF Certified for food with a safe, antimicrobial surface.

- Rapid response: within 1° in 2 to 3 seconds
- Temperature range: -40° to 482°F; calibration points: 40°F and 140°F
- Resolution: 0.1°; accuracy: ± 0.9°F from –4°F to 482°F
- Minimum insertion distance: 0.25 inches (5mm)
- Probe adjusts to any angle and folds for protection and portability

- Auto-sleep after 60 seconds
- Water- and splash-resistant (meets IP65)
- Magnetic backing for easy storage
- Includes: CR2032 button cell battery and Traceable certificate



#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> 2-Second Temp Food Thermometer

Cat. No.	Model	Probe Dimensions (L x Dia.)	Overall Closed Dimensions (L x H x D)
15-078-302	Standard/Mini	2.8 x 0.13 in.	4.5 x 1.5 x 0.75 in.
15-078-303	Deluxe	4.4 x 0.15 in.	6 x 1.75 x 0.75 in.





# Traceable Specialty, Type K, and Infrared Thermometers

All Fisherbrand™ Traceable™ Specialty,
Type K, and Infrared Thermometers are
individually certified ensuring that the
thermometer has been properly calibrated
to give trusted results.





### Selection Guide for Traceable Specialty, Type K, and Infrared Thermometers

Cat. No.	Page	Traceable Certificate Supplied	Range	Resolution	Accuracy	Probe Length	Waterproof	Battery	Alarm	Display Min/Max
14-648-62	29	Yes	-50° to 150°C (-58° to 302°F)	0.1°	±1°C	127mm	Entire Unit	02-440-1C	No	Yes
14-648-61	29	Yes	-50° to 150°C (-58° to 302°F)	0.1°	±1°C	N/A	Entire Unit	02-440-1C	No	Yes
14-649-102	30	Yes	Infrared Sensor –55° to 250°C (–67° to 482°F)	0.2°C (0.5°F) Between –10 and 200; Otherwise 1°	±0.6°C Between –5° and 65°C	N/A	N/A	02-440-3A	No	Yes
			Piercing, Stainless-Steel Sensor –55° to 330°C (–67° to 626°F)	0.2°C (0.5°F) Between –10 and 200; Otherwise 1°	±0.5°C	152mm	Probe Only	02-440-3A	No	Yes
15-077-22	30	Yes	-50° to 70°C (-58° to 158°F)	0.2°	±1°C	3m	Probe/Cable	02-440-3A	No	Yes
15-077-14	31	Yes	-200° to 1,370°C (-328° to 2,498°F)	0.1° and 1%	±1°C	6mm	Cable Only	02-440-3A	Yes	Yes
15-078-186	31	Yes	-200° to 1,300°C (-328° to 2,372°F)	0.1° and 1%	±0.3% +1°C	6mm	Cable Only	02-441	No	Yes
06-664-38	32	Yes	-60° to 500°C (-76° to 932°F)	0.1°	±2°C or 2%	N/A	N/A	02-440-3A	No	No
15-077-969	32	Yes	-50° to 1,000°C (-58° to 1,832°F)	0.1°	±1.5% + 2°C	N/A	N/A	02-441	No	No
15-077-966	33	Yes	-33° to 220°C (-27° to 428°F)	0.1°	±1°C + 2%	N/A	N/A	02-440-1C	No	No

#### Traceable Dishwasher Thermometer with Stainless-Steel Probe

#### Provides proof of achieving 180°F (82°C) during dishwashing.

- Reports the MIN/MAX temperatures of the dishwashing cycle
- Metal housing and waterproof construction (IP67)
- Probe length: 5 in. (12.7cm)
- Toggle between Fahrenheit and Celsius units

- Temperature range: -58° to 302°F (-50° to 150°C); resolution: 0.1°; accuracy: ±1°C between -20° to 150°C
- Overall L x Dia. 6 x 1.75 in.
- Includes: silver-oxide battery and Traceable certificate



Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Dishwasher Thermometer with Stainless-Steel Probe

Cat. I	No.	Description
14-64	18-62	Dishwasher Thermometer with Stem Probe

14-648-62

# Traceable Metal Dishwasher Thermometer

## Waterproof metal construction with attachment clip.

- Records MIN/MAX temperatures of dishwashing cycles
- Metal housing and waterproof construction (IP67)
- Toggle between Fahrenheit and Celsius units

- Temperature range: -58° to 302°F (-50° to 150°C); resolution: 0.1°; accuracy: ±1°C between -20° to 150°C
- Overall dimensions (L x Dia.): 0.75 x 1.75 in.
- Includes: silver-oxide battery and Traceable certificate



#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Metal Dishwasher Thermometer

Cat. No.	Description
14-648-61	Metal Dishwater Thermometer

### Traceable HACCP Food Thermometer

### HAACP (Hazard Analysis and Critical Control Point) thermometer for food safety.

- Versatile combines non-contact infrared sensors with a piercing stainless-steel probe
- Infrared temperature range: -55° to +250°C (-67° to +482°F)
- Probe temperature range: -55° to +330°C (-67° to +626°F)
- Resolution: 0.2° between –10° and 200°C; accuracy: –5° to 65°C ±0.6°C for infrared, ±0.5°C for probe
- Infrared emissivity: 0.95 (default); adjustable from 0.1 to 1.0
- Red and green LEDs indicate HAACP zones: green light under 4°C (40°F); green light over 60°C (140°F); red danger light between 4° to 60°C (40° to 140°F)
- Displays current temperature, MIN/MAX temperature, low battery, emissivity value (infrared)
- Includes: battery, probe, Traceable certificate



#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> HACCP Food Thermometer

			Dimensio	ons (L x W x H)
Cat. No.	Description	Probe Length	With Folded Probe	With Extended Probe
14-649-102	HACCP Food Thermometer	6 in.	6.5 x 1.5 x 0.75 in. (16.5 x 3.9 x 2.5cm)	12.5 x 1.5 x 1 in. (31.8 x 3.9 x 2.5cm)

# Traceable Digital Thermometers with Short Sensors

### View ambient and probe temperatures from 25 feet.

- Ideal for monitoring liquids, air/gas, or semisolids
- Records the maximum and minimum temperature in a certain time period
- Visual and audible alarms and multiple displays of recorded temperatures
- Temperature range: -5° to 50°C (23° to 122°F); resolution: 1°; accuracy: ±1°C
- Overall dimensions (L x W x H): 4.25 x 4 x 1 in. (10.8 x 10.1 x 2.5cm)



## $\mathsf{Fisherbrand}^{^{\mathsf{TM}}} \, \mathsf{Traceable}^{^{\mathsf{TM}}} \, \mathsf{Digital} \, \, \mathsf{Thermometers} \, \, \mathsf{with} \, \, \mathsf{Short} \, \, \mathsf{Sensors}$

Cat. No.	Description
15-077-22	Digital Thermometers with Short Sensors

15-077-22



### Traceable Total-Range Thermometer

#### Pocket-sized thermometer with water-resistant case.

- Accepts all Type-K thermocouples
- Jumbo digits with backlight option; display updates twice per second
- Thermometer range: -200° to +1,370°C (-328° to +2,498°F)
- Resolution: 0.1° and 1°; Accuracy: ±1°C between -50° to +740°C
- Probe range: -40° to 250°C continuous or 300°C short-term

- Constructed of shock-resistant PVC to withstand rough handling
- Toggles between Fahrenheit and Celsius units
- Recalls MIN/MAX temperature for any time period
- Alarm sounds when temperature exceeds set points
- Count-up timer: from 1 minute to 23 hours and 59 minutes
- Dimensions (L x W x H): 7 x 3.25 x 1.5 in. (17.8 x 8.3 x 3.8cm)
- Includes: case with stand; three AAA batteries; Type-K beaded probe with 4 ft. (1.2m) cable, Traceable certificate



#### Fisherbrand™ Traceable™ Total-Range Thermometer

Cat. No.	Description
15-077-14	Total-Range Thermometer

# Traceable Waterproof K Thermometer

#### Technically advanced, fast-reading, yet easy-to-use thermometer.

- Accepts all Type-K thermocouples
- Display updates 2.5 times per second
- Differential feature displays temperature difference from set point
- Jumbo digits with backlight are visible from 10 feet away
- Thermometer range: -200° to +1,000°C (-328° to +2,372°F)
- Resolution: 0.1° and 1°; accuracy: ±1°C between –50° to +740°C
- Probe range: -40° to 250°C continuous or 300°C short-term
- Toggles between Fahrenheit and Celsius units
- Recalls MIN/MAX temperature for any time period
- · Constructed of shock-resistant ABS plastic
- Includes: carrying case, 9V battery, type-K beaded probe with 4 ft. (1.2m) cable, Traceable certificate



#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Waterproof K Thermometer

Cat. No.	Description
15-078-186	Waterproof K Thermometer

15-078-186

#### Traceable Non-Contact Infrared Thermometers

### For petroleum, electronics, plant, and field use.

- Measure surface temperatures with view fields of 6:1 to 8:1‡
- Toggle between Celsius and Fahrenheit scales
- Laser sighting beam for precise aim

- One-second sampling
- · Backlight option; low-battery indicator
- Includes: two AAA batteries, wrist strap, Traceable certificate



#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Non-Contact Infrared Thermometers

Cat. No.	Description
06-664-38	Non-Contact Infrared Thermometers

### Traceable Infrared Thermometer Gun

### Temperature readings of any surface in less than a second.

- One-handed "point-and-shoot" temperature measurements with view field of 50:1<sup>‡</sup>
- · Laser-sighting beam for precise aim
- Toggle between Celsius and Fahrenheit scales
- · Backlight option; low-battery indicator

- Temperature range: -50° to +1,000°C (-58° to +1,832°F)
- Resolution: 0.1° to 200° and 1° over 200°; accuracy: ±1.5% + 2°C
- Includes: 9V battery and Traceable certificate



#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Infrared Thermometer Gun

Cat. No.	Description
15-077-969	Infrared Thermometer Gun

‡ A unit with a 7:1 field view and held 14 in. (35.6cm) from the target reads radiation emitted from a spot that is 2 in. (5.1cm) in diameter.

### Traceable Infrared Thermometer with Pocket Clip

#### Easy to use — takes readings in less than a second.

- Simple point-and-shoot operation
- Field of view is 1:1‡
- Temperature range: -33° to +220°C (-27° to +428°F)
- Resolution: 0.1°; accuracy: ±1°C + 2%
- Fixed emissivity (0.95) covers 90% of all applications
- Toggle between Celsius and Fahrenheit scales

- Non-invasive and non-contact method for food preparation, life sciences, pharmaceuticals, petroleum products, cleanrooms, electronics, and field use
- Low battery indicator

Description

• Dimensions: 3.25 x 0.75 in. (8.3 x 1.9cm)

Infrared Thermometer with Pocket Clip

• Includes: pocket clip, key-chain strap, cell button battery

#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Infrared Thermometer with Pocket Clip



15-077-966

## Traceable Infrared Thermometer with Trigger Grip

#### Instantly determines temperature of solid, semisolid, or liquid surfaces.

- Non-invasive and non-contact method for food preparation, life sciences, pharmaceuticals, petroleum products, cleanrooms, electronics, and field use
- Temperature range: -60° to +500°C (-76° to +932°F); resolution: 0.1°; accuracy: ±1°C + 2%
- Toggle between Celsius and Fahrenheit scales
- MIN/MAX measures temperatures over any time period.
- Displays the average reading and the difference between two readings
- User-set audible alarms signal out-of-range conditions
- · Backlight option; low battery indicator
- Memory to recall individual temperatures
- Optional jack accommodates all Type K thermocouples



Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Infrared Thermometer with Trigger Grip

Cat. No.

Description

Cat. No.	Description
15-077-968	Infrared Thermometer with Trigger Grip

‡ A unit with a 7:1 field view and held 14 in. (35.6cm) from the target reads radiation emitted from a spot that is 2 in. (5.1cm) in diameter.

### Traceable Dual-Laser Infrared Thermometer with Type K Probe

#### Two laser sightings for improved accuracy.

- Point-and-shoot operation with readings in less than a second
- Dual lasers indicate the outer diameter of the target surface area; white LED surface illumination
- Field of view: 12:1<sup>‡</sup>; emissivity: 0.1 to 1.00 in 0.01 steps
- Temperature range: -60° to +550°C (-76° to +1022°F)
- Resolution: 0.1°; accuracy: the greater of ±2% of the reading or 2°C
- Temperature range with type-K probe: -64° to +1,400°C (-83° to +2,552°F)

- Toggle between Celsius and Fahrenheit scales
- Dual display of current temperature and one of the following eight modes: emissivity value, MAX memory, MIN memory, differential, average (time-weighted), high temperature alarm, low temperature alarm, probe temperature
- MIN/MAX records highest and lowest readings at any time
- Displays the average reading and the difference between two readings
- User-set audible alarms signal out-of-range conditions



# Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Dual-Laser Infrared Thermometer with Type K Probe

Cat. No.	Description
06-664-254	Dual-Laser Infrared Thermometer with Type-K Probe

#### Q. What is field of view?

A. Field of view (FOV) refers to the size of the target; within the FOV, the infrared thermometer measures and averages the temperatures it reads. For example, if the temperature of a specific object is being measured, that object alone should fill the thermometer's FOV. If background or other surfaces are included in the FOV, the temperatures of those surfaces will be averaged into your result.

#### Q. What is distance-to-spot ratio?

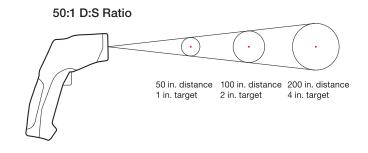
**A.** Distance-to-spot ratio (D:S) indicates the thermometer's optical resolution. The D:S compares the distance from a spot to the size of the spot or target area. A larger D:S or resolution means that a smaller spot can be measured from a greater distance.

For example, a thermometer with a D:S of 8:1 can measure the temperature of a one-inch diameter spot from a distance of 8 inches. As the distance increases, the spot's size would increase: at 16 inches, the spot would be 2 inches in diameter and would grow to 3 inches at a 24-inch distance.

#### Q. What is emissivity?

A. Emissivity refers to the type of surface and the amount of infrared radiation or heat it emits. Emissivity ranges from 0 (for mirrors or shiny surfaces) to 1.0 (for black surfaces). Organic, painted, or oxidized surfaces typically have emissivity values around 0.95.

Some infrared thermometers have fixed emissivity settings (0.95 to 0.97) and are suitable for most material surfaces. Other instruments have an adjustable emissivity and may include a chart with suggested settings for different materials.



‡ A unit with a 7:1 field view and held 14 in. (35.6cm) from the target reads radiation emitted from a spot that is 2 in. (5.1cm) in diameter.



# Traceable Humidity Meters

For accurate results across all humidity ranges, you can rely on the comprehensive range of Fisherbrand™ Traceable™ Humidity Meters to read, record, manage, and even print your results without delay. These meters are perfect for determination of exact air conditions in labs, hoods, clean rooms, coolers, stockrooms, food storage, process control, incubators, environmental chambers, chemical storage areas, and inside/outside atmospheric monitoring.

Accessories, which are included as standard, allow the Traceable Humidity Meters to be placed securely in any location with wall mounts, bench stands, magnetic strips, or hook-and-loop tape for continuous monitoring. Best of all, many of the Traceable Humidity Meters have amazing capabilities like minimum and maximum memory, alert alarms when the environment is out of range, and the ability to transfer the results directly to a laptop or PC for easy viewing and sharing.

Please refer to the selection guide below to choose the right Traceable Humidity Meter for your particular application.

### Selection Guide for Traceable Humidity Meters

Cat. No.	Page	Traceable Certificate Supplied	Relative Humidity Range	Resolution	Accuracy	Temperature Range	Resolution	Accuracy	Battery	Features
15-079-628	36	Yes	0.0 to 100% RH	0.01%	±3% RH	0.00° to 60.00°C	0.1°	±0.4°C	02-440-3A	Wi-Fi RH Monitoring
15-079-665	36	Yes	0.0 to 95.0% RH	0.1%	3% RH	0.0° to 65.0°C	0.1°	±0.4°C	02-440-3A	USB Data Download
15-079-667	36	Yes	0.0 to 95.0% RH	0.1%	3% RH	0.0° to 65.0°C	0.1°	±0.4°C	02-440-3A	USB Data Download
11-661-13	37	Yes	25 to 95% RH	1% RH	±2% RH	0° to 50°C	1°	±1°C	02-440-3A	Dual MIN/MAX Memories
06-662-4	39	Yes	20 to 90% RH	1% RH	±5% RH	0° to 50°C	0.1°	±1°C	02-440-3A	View Time, Temp, and Humidity
11-661-19	41	Yes	10 to 95% RH	0.1%RH	±2% RH	–50° to 70°C	1°	±1°C	02-440-3A	Jumbo Digits
11-661-7B	40	Yes	5 to 95% RH	0.01% RH	±1.5% RH	-40° to 104°C	0.01°	±0.4°C	02-441	Response Time of 10 Seconds
11-661-7A	40	Yes	10 to 95% RH	0.01% RH	±1.5% RH	-40° to 104°C	0.01°	±0.4°C	02-441	Also Reads Dew Point
11-661-18	40	Yes	10 to 95% RH	0.1%RH	±2% RH	–18° to 93°C	0.1°	±1°C	02-441	Computer Output
15-079-614	39	Yes	1 to 99% RH	1% RH	±3% RH	–10° to 60°C	1°	±1°C	02-440-3A	RH Alarm and Reads Dew Point
15-077-963	38	Yes	1 to 99% RH	0.1% RH	±4% RH	-40° to 70°C	0.1°	±1°C	02-440-3A	Dew Point and Wet-Bulb Monitor
14-648-49	42	Yes	0 to 100% RH	10%RH	±5% RH	N/A	N/A	N/A	N/A	Humidity Card

# TraceableLIVE WiFi Hygrometer/Thermometer Datalogging with Remote Notification

#### Stay connected to your lab with your smartphone, tablet, or personal computer.

- Choose ambient sensor or probe model
- · Monitor temperature, humidity, and more
- · Local or remote monitoring via Wi-Fi
- Alerts: humidity alarm, temperature alarm, lost connectivity, low battery, calibration due
- No software installation required; web, Android, iOS interfaces
- Receive mobile push/email/text notifications
- Requires TraceableLIVE<sup>™</sup> subscription
- Includes: ambient sensor dongle, Quick Start Guide, batteries, magnets, hook-and-loop tape, wall mount, and Traceable certificate



# Fisherbrand<sup>™</sup> TraceableLIVE<sup>™</sup> WiFi Hygrometer/Thermometer Datalogging with Remote Notification

Cat. No.	Range	Resolution	Probe
15-079-628	Humidity: 0.0 to 100% Temperature: 0.00° to 50.00°C	0.1% and 0.1°	Ambient Sensor
15-079-629	Humidity: 0.0 to 100% Temperature: 0.00° to 60.00°C	0.1% and 0.1°	Sensor Probe (6' Cable

## Traceable Excursion-Trac or Memory-Loc Datalogging Hygrometers

### Store temperature, relative humidity, and time data with erasable memory.

- Indicators: low battery, memory full, USB data transfer, active alarms
- Visual and audible Smart-Alarm<sup>™</sup> feature continues after return to non-alarm conditions
- Stores up to 30 unique alarm events
- Continue to use while downloading and analyzing data
- Great for hoods, storerooms, cleanrooms, and other environments
- Includes: probe, stand, hook-and-loop tape, magnetic backing, wall mount
- Traceable certificate and batteries included



# Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Excursion-Trac<sup>™</sup> or Memory-Loc<sup>™</sup> Datalogging<sup>™</sup> Hygrometers

Cat. No.	Description	Range	Accuracy	Resolution	Memory
15-079-665	Excursion-Trac Datalogging Hygrometer	Humidity: 0 to 95% Temperature: -20° to 70°C	$\pm 3\%$ RH Between 5 and 75%, Otherwise $\pm 5\%$ RH	0.1% and 0.1°	525,504 Data Points
15-079-667	Memory-Loc Datalogging Hygrometer	Humidity: 0 to 95% Temperature: –20° to 70°C	$\pm 3\%$ RH Between 5 and 75%, Otherwise $\pm 5\%$ RH	0.1% and 0.1°	688,086 Data Points



# TraceableGO Bluetooth Datalogging Hygrometer

# Safely transport reagents, clinical samples, vaccines, pharmaceuticals, and food items.

- Immediate identification of conditions outside the user-defined parameters
- Temperature, Trip Duration, MIN/MAX, Battery Level, and Alarms displayed at all times
- Temperature range: -20° to 70°C (-4° to 158°F); accuracy: ±0.4°C between -10° and 70°C, otherwise ±0.5°C; resolution: 0.1°
- Relative humidity range: 0 to 95% (non-condensing); accuracy: ±3% RH between 5% and 75%, ±5% RH otherwise, resolution: 0.10%

- Compatible with TraceableGO or TraceableLIVE mobile apps
- Generate instant reports; export data when the trip has ended
- Stores up to 90 alarm events
- Reading interval: from one minute to 12 hours (5-minute default)
- Transport duration: 227 days (7.5 months)
- Includes: batteries, wall mount, Traceable certificate



#### Fisherbrand<sup>™</sup> TraceableGO<sup>™</sup> Bluetooth Datalogging Hygrometer

Cat. No.	Description
15-079-679	Bluetooth Datalogging Hygrometer

15-079-679

## Traceable Relative Humidity/Temperature Meter

# Monitor air conditions in environmental chambers, chemical storage areas, cleanrooms, incubators, and stockrooms.

- Temperature range: 0° to 50°C (32° to 122°F); ±1.5°C accuracy and 1° resolution
- Relative humidity range: 25 to 95%; accuracy: ± 3% (25 to 75% RH), otherwise ± 5%; resolution: 1%
- Made from high-impact, chemical-resistant ABS plastic
- Measures L x W x H: 0.75 x 3.25 x 7 in. (2 x 8 x 18cm)
- Net weight: 5 oz. (142g)
- Wall mount included



#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Relative Humidity/Temperature Meter

Cat. No.	Description
11-661-13	Relative Humidity/Temperature Meter

11-661-13

# Traceable Alarm RH/Temperature Monitor

#### Monitors your critical experiments around-the-clock.

- Internal ambient sensors
- Triple display: current, minimum, and maximum humidity and temperature
- Multi-point calibration
- Alarms when readings exceed user-specified set points
- Temperature range: 0° to 60°C (32° to 140°F); 0.1°F resolution
- Relative humidity range: 5% to 95%; accuracy: ±3% midrange, ±5% otherwise; resolution: 0.1°
- For hoods, cleanrooms, coolers, stockrooms, incubators, environmental chambers, and chemical storage areas
- Includes: flip-open stand, slot for wall mounting
- High-impact, chemical-resistant ABS plastic construction



#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Alarm RH/Temperature Monitor

Cat. No.	Description
15-079-630	Alarm RH/Temperature Monitor
14-649-84	Alarm RH/Temperature Monitor (6' Cable with External Probe)

15-079-630

# Traceable Dew-Point/Wet-Bulb/Humidity Thermometer

## Settable high/low alarms for all four measurements.

- Large LCD displays current, minimum, and maximum dew point, wet-bulb, humidity, and temperature
- Alarms sounds for 1 minute and flashes red until readings return to non-alarm conditions
- Temperature range: -40° to +70°C (-40° to +158°F); ±1°C accuracy and 0.1° resolution below 100°C
- Accuracy: ±4% between 35 to 75% RH (otherwise ±5%)
- Alarms set in 0.1 minute increments
- Includes: stand, wall mount, Traceable certificate, batteries
- High-impact, chemical-resistant ABS plastic case



#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Dew-Point/Wet-Bulb/Humidity Thermometer

Cat. No.	Description
15-077-963	Dew-Point/Wet-Bulb/Humidity Thermometer

15-077-963

## Traceable Thermometer/Clock/Humidity Monitor

#### Measures ambient temperature, relative humidity, and tells time.

- Three-line LCD display with 0.5 in. (13mm) digits
- Dual ranges: 0° to 50°C and 32° to 122°F
- Flip-down easel for desktop use
- Switch selectable Celsius or Fahrenheit readings
- Relative humidity range is 20 to 90%, resolution is 1% RH, and accuracy is ±5% (midrange), otherwise ±8% RH
- Memory recalls highest and lowest temperature and humidity readings
- Clock shows time of day to the minute with 0.01% accuracy
- Easy-to-read LCD reports temperature with accuracy to ±1°C and resolution to 0.1°C/°F



#### Fisherbrand™ Traceable™ Thermometer/Clock/Humidity Monitor

Cat. No.	Description	
06-662-4	Thermometer/Clock/Humidity Monitor	

06-662-4

# Traceable Digital Humidity/Temperature/Dew Point Meter

# Convenient triple memories recall MIN/MAX readouts for RH, dew point, and temperature.

- Audible and visual LED alarm can be set for 55%, 60%, or 65% humidity
- Responds in less than 30 seconds
- Choose Fahrenheit or Centigrade temperatures
- Humidity range: 20 to 95%; resolution: 0.1%; accuracy: ±3% (midrange), otherwise ±5% RH

- Temperature range: 14° to 140°F (-10° to 60°C); resolution: 0.1°; accuracy: ±1°C
- Dew point range: 14° to 140°F (-10° to 60°C)
- Includes: wall mount, batteries, Traceable certificate



Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Digital Humidity/Temperature/Dew Point Meter

Cat. No. Description

15-079-614 Digital Humidity/Temperature/Dew Point Meter

15-079-614

# Traceable Digital Hygrometer/Thermometer

# Meet critical experimental requirements, perform routine measurements, and fulfill all quality control needs.

- Use to calculate frost point, latent heat, sensible heat, vapor pressure, moisture content, specific enthalpy, specific volume, specific humidity, mixing ratio, and vapor density
- Programmable high and low temperature, humidity, and dew point set points
- Built-in memory recalls highest and lowest readings
- Humidity readings in under 10 seconds (instant model); basic model responds in under 3.5 minutes

- Microcomputer, solid-state construction
- Computer output option for data capture, print, and storage (requires Cat. No. 15-077-70)
- Temperature range: -40° to +104°C (-40° to +220°F) with ±0.4°C (±0.4°F) accuracy, 0.01° resolution
- RH range: 10 to 95% (Basic), 5 to 95% (Instant); accuracy, ±1.5%; resolution: 0.01%
- Durable ABS plastic case



11-661-7B

#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Digital Hygrometer/Thermometer

Cat. No.	Description
11-661-7B	Instant Model Digital Hygrometer/Thermometer
11-661-7A Basic Model Digital Hygrometer/Thermometer	
Accessories	
15-077-70	Data Acquisition System (DAS)
10-011-10	Data Acquisition System (DAS)

## Traceable Humidity Meter

#### High-accuracy and broad temperature range for all lab environments.

- Retains high and low readings for a selected period
- Simultaneously displays temperature and RH on dual 29mm LCD
- Relative humidity range: 10 to 95%, with 0.1% resolution and accuracy of ±2% (mid-range), otherwise ±4% RH
- Temperature range: -20° to +50°C; 0.1° resolution; accuracy of ±1°C (from 0° to 40°C) and ±2°C (ends of range)

- Response time <10 seconds
- Resistive-polymer 8.5 in. (22cm) polymer probe with 1m (3 ft.) cable (included)
- Battery (9V) included; provides 100 hours of continuous use
- RS-232-C serial computer output
- Shockproof ABS plastic carrying case
- Includes Traceable certificate



Fisherbrand™ Traceable™ Humidity Meter

Cat. No.	Description	
11-661-18	Humidity Meter	



# Traceable Jumbo Thermo-Humidity Meter

#### Jumbo 25mm digits visible from 35 ft. (10m) away.

- Fast-response, solid-state sensors measure relative humidity, ambient temperature, and external temperature in under 30 seconds
- Display updated every second
- Choose Fahrenheit or Centigrade temperatures
- Humidity range: 20 to 99% RH; 1% resolution; accuracy: ±2% (mid-range)
- Ambient temperature range: 0° to +50°C (+32° to +122°F)
- External temperature range (with probe): -50° to +70°C (-58° to +158°F)
- Dual-recall minimum and maximum memory
- External temperature probe and cable perform under water
- Meets CLIA specification 493.1207
- Includes: chemical- and shock-resistant ABS plastic case, flip-open stand, wall mount, external temperature probe, 10 ft. (3m) cable, AAA alkaline battery, Traceable certificate



#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Jumbo Thermo-Humidity Meter

Cat. No.	Description	
11-661-19	Jumbo Thermo-Humidity Meter	

11-661-19

# Traceable Alarm RH/Temperature Monitor

# Triple display simultaneously shows high, low, and current humidity/temperatures.

- Multi-point calibration
- Minimum and maximum memory for both temperature and humidity
- Cable (2m, 6 ft.) with external ambient temperature and humidity sensor (probe)
- High/low alarm can be set by user in 1% RH or 1° increments

- · Alarm sounds when readings exceed set points
- High-impact, chemical-resistant ABS plastic construction
- Includes: flip-open stand, slot for wall mounting; external temperature/humidity sensor, AAA battery, and Traceable certificate



#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Alarm RH/Temperature Monitor

Cat. No.	Description
14-649-84	Alarm RH/Temperature Monitor

14-649-84

# Traceable Humidity-On-A-Card Humidity Monitor

# Card format for monitoring humidity levels in hard-to-reach or out-of-the-way areas.

- Indicate current and maximum humidity by color change from blue to pink
- Current humidity range: 0 to 100% RH in 10% increments; accuracy: ±5% RH at 75°F (24°C)
- Maximum humidity range: 50 to 90% RH in 10% increments (nonreversible color reaction); accuracy: ±5% RH at 75°F (24°C)
- Cards are individually sealed in moisture-barrier bags with Humidity Sponge<sup>™</sup> desiccant
- Card dimensions: 4 x 4 in. (10.2 x 10.2cm)



14-648-49

#### Fisherbrand™ Traceable™ Humidity-On-A-Card™ Humidity Monitor

Cat. No.	Description	
14-648-49	Humidity-On-A-Card Humidity Monitors, 6/Pack	

# **READING HUMIDITY 101:**



#### **RELATIVE HUMIDITY:**

The level of water vapor saturation of a space or gas. Generally expressed as a percentage (%RH), it is the most commonly used measure of humidity. For dry bulb/wet bulb sensors, readings help to determine the state of humid or moist air, including the amount of water vapor.



#### **DEW POINT:**

The temperature at which a cooled gas would reach 100% saturation. At the dew point, the water vapor in the gas would condense if exposed to a cooler surface.



#### **FRACTION OR RATIO:**

The proportion of water vapor in a gas. This is often expressed as a percentage or a fraction.



#### **CONCENTRATION:**

The amount or mass of water vapor per unit volume. Typically, room temperature air contains around 10 grams of water vapor per cubic meter.



# Traceable Barometers

Barometers are ideal for recording ambient changes in the lab, monitoring conditions affecting sample analysis, and assisting in the prediction of weather changes.

The Traceable Workstation Barometer with Clock measures barometric pressure and graphically displays the barometric trend. It also displays temperature with forecasting indicators showing weather conditions for the next 12 hours and time of day/date.

To ensure accuracy, an individually serial-numbered Traceable certificate from an ISO 17025 calibration laboratory accredited by A2LA is provided for this range of Fisherbrand Traceable Humidity Meters and Barometers. It indicates traceability to standards provided by NIST (National Institute of Standards and Technology).

# TraceableLIVE WiFi Datalogging: Barometric Pressure, with Remote Notification

## Includes TraceableLIVE subscription for a single user.

- Monitors barometric pressure, temperature, and humidity
- Barometric pressure range: 500 to 1100mbar
- Temperature range: 0° to 55°C (32° to 131°F)
- Humidity range: 0 to 100% RH
- Set alerts for high and low parameters, connectivity interruption, low battery
- Choose alarm notifications via mobile push, email, and SMS text message
- · Connects to existing Wi-Fi; no software installation required
- TraceableLIVE subscription required



Fisherbrand<sup>™</sup> TraceableLIVE<sup>™</sup> WiFi Datalogging: Barometric Pressure, with Remote Notification

Cat. No.	Description
15-079-664	WiFi Barometric Pressure Datalogging with Remote Notification

15-079-664

# Traceable Excursion-Trac or Memory-Loc USB Datalogging Barometers

### Simultaneously monitor barometric pressure, temperature, and humidity.

- Barometric pressure range: 500 to 1030mbar;
   Altitude compensation: -100 to 2,500m
- Temperature range: 0° to 65°C (32° to 149°F)
- Humidity range: 0% to 95% non-condensing
- User-adjustable logging interval from 1 minute to 12 hours
- Program Smart-Alarm™ feature for all three parameters; visual and audio indicators
- Retrieve data for up to 30 different alarm events
- Transfer recorded data via USB in CSV format from thermometer to PC/Mac
- Status indicators: low battery, memory use (percentage)
- Includes: stainless-steel probe(s), stand, hook-and-loop tape, magnetic strips, wall mount, universal AC adapter, batteries, Traceable certificate



# Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Excursion-Trac<sup>™</sup> or Memory-Loc<sup>™</sup> USB Datalogging Barometers

Cat. No.	Description	Range	Accuracy	Resolution	Memory
15-079-666	Excursion-Trac Datalogging Barometer	500 to 1030mbar 0.0 to 95.0% RH (Non-Condensing) 0° to 65°C (32° to 149°F)	±4mbar ±3% RH (Between 5% and 75% RH), ±5% Otherwise ±0.4°C	1mbar 0.1% RH 0.1°	525,600 Data Points
15-079-668	Memory-Loc Datalogging Barometer	500 to 1030mbar 0.0 to 95.0% RH (Non-Condensing) 0° to 65°C (32° to 149°F)	±4 mbar 3% ±3% RH (Between 5% and 75% RH), ±5% Otherwise ±0.4°C	1mbar 0.1% RH 0.1°	819,150 Data Points

# Traceable Digital Barometer

#### Monitor barometric pressure, temperature, and relative humidity.

- LCD continuously and simultaneously displays barometric pressure, temperature, relative humidity, barometric pressure trend, and time
- Barometric pressure range: 500 to 1,030mbar; altitude adjustment: -100 to 2,500M
- Temperature range: 0° to 55°C (32° to 131°F)

- Relative humidity range: 5 to 95%
- MIN/MAX readings are stored hourly for the past 24 hours
- Computer data acquisition system software sold separately (Cat. No. 14-650-118)
- Includes: wall mount, flip-open stand, and batteries



14-650-118

#### Fisherbrand™ Traceable™ Digital Barometer

Cat. No.	Description
14-650-118	Digital Barometer



# Traceable Timers, Stopwatches, and Clocks

All Fisherbrand Traceable timers are individually certified as properly calibrated. If used correctly, that can help you produce valid and accurate results. Traceable Timers can count up or down for as long as 100 hours with an accuracy of 0.001%. Choose from many features like audible and visual alarms, water-resistance, memory recall, and other options that will help to make sure that you don't miss a single end-point.







Review the selection guide to find the right timer for your applications.

#### **Timer Selection Chart**

Cat. No.	Page	Channels	Traceable Certificate Supplied	Accuracy	Maximum Time	Resolution	Battery	Clock	Memory	Features
14-649-17	46	4	Yes	0.01%	100 Hours	1 Second	15338754	Yes	Yes	Four-Channel Countdown/Up
02-261-840	46	4	Yes	0.01%	100 Hours	1 Second	15338754	Yes	Yes	Personalize Your Timer
06-662-5	47	3	Yes	0.01%	100 Hours	1 Second	15348754	Yes	Yes	Continuous Alarm
06-662-3	47	3	Yes	0.01%	20 Hours	1 Second	15348754	Yes	Yes	Triple Display
06-662-46	48	3	Yes	0.01%	100 Hours	1 Second	15338754	Yes	Yes	Triple Display
06-664-252	48	2	Yes	0.01%	100 Hours	1 Second	15348754	No	Yes	Visual and Audible Alarms
06-662-47	51	2	Yes	0.01%	24 Hours	1 Second	15348754	Yes	Yes	Adjustable Display
06-662-44	51	2	Yes	0.01%	24 Hours	1 Second	15338754	Yes	Yes	Two-Channel Countdown/Up
14-649-83	52	2	Yes	0.01%	24 Hours	1 Second	15338754	Yes	Yes	Ultra Compact
06-662-50	52	2	Yes	0.01%	10 Hours	1 Second	15348754	Yes	Yes	Big Digits
06-664-251	53	1	Yes	0.01%	100 Minutes	1 Second	15348754	No	Yes	Visual and Audible Alarms
15-081-100	53	1	Yes	0.01%	100 Minutes	1 Second	15348754	No	Yes	Extra-Large Digits
02-261-839	54	1	Yes	0.01%	100 Minutes	1 Second	15348754	No	Yes	Jumbo Digits
14-649-15	54	1	Yes	0.01%	100 Hours	1 Second	15338754	Yes	Yes	Numbered Keys
14-649-14	55	1	Yes	0.01%	100 Minutes	1 Second	15338754	No	No	Numbered Keys
06-662-45	55	1	Yes	0.01%	24 Hours	1 Second	15358754	Yes	Yes	Innovative Design
06-662-51	56	1	Yes	0.01%	100 Minutes	1 Second	15348754	No	Yes	Automatic Memory
06-662-23	56	1	Yes	0.01%	100 Hours	1 Second	15338754	No	Yes	Clips to Everything
06-664-40	57	1	Yes	0.01%	100 Minutes	1 Second	15338754	No	Yes	Water Resistant
06-662-49	57	1	Yes	0.01%	20 Hours	1 Minute	15348754	No	No	Easy Three-Key Operation
14-650-124	58	1	Yes	0.01%	20 Hours	1 Second	15348754	No	Yes	Audible, Flashing, and Vibrating
15-081-120	58	1	Yes	0.01%	100 Minutes	1 Second	15348754	No	Yes	Water-Resistant/Steam- Proof

#### Traceable Four-Channel Alarm Timer

#### Four countdown channels plus stopwatch channel and time-of-day clock.

- Features: count up/down, time-in/out, memories, alarm, 12/24-hour clock
- Large high display can be seen from a distance
- Remarkable memory returns display to previously programmed countdown time at the touch of a button
- Extra-loud, high-decibel alarms for 1 minute or can be silenced manually
- Timing range: 99 hours, 59 minutes, 59 seconds
- Resolution: 1 second
- Accuracy: 0.001%
- Supplied with clip, stand, magnet, battery, Traceable certificate



#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Four-Channel Alarm Timer

Cat. No.	Description
14-649-17	Four-Channel Alarm Timer

14-649-17

# Traceable Multi-Colored Timer

### Features assorted bold colors for distinctive appearance.

- Four separate timing channels, plus recall memory
- Timing range: up to 99 hours, 59 minutes, 59 seconds
- Resolution: 1 second
- Accuracy: 0.01%

- Count-up/count-down/alarm/clock
- Easel bench stand and magnetic back
- Unique memory returns channel to previously programmed setting at the touch of a key



02-261-840

#### Fisherbrand™ Traceable™ Multi-Colored™ Timer

Cat. No.	Description
02-261-840	Multi-Colored Timer



#### Traceable Three-Channel Alarm Timer

# Innovative timer has programmable alarm with adjustable volume control for any environment.

- Features: count up/down, time-in/out, memories, alarm, clock, adjustable alarm duration/volume
- Triple display shows three times at once; start timers individually or simultaneously
- Set adjustable volume alarm to sound for 60 seconds or continuously until turned off
- Timing range: 99 hours, 59 minutes, 59 seconds
- Resolution: 1 second
- Accuracy: 0.01%
- Supplied with battery, Traceable certificate



#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Three-Channel Alarm Timer

Cat. No.	Description	
06-662-5	Three-Channel Alarm Timer	

06-662-

# Traceable Triple-Display Timer

### Triple-line display makes easy work of simultaneously timing three events.

- Features: count up/down, time-in/out, memory, alarm, stopwatch, 12/24-hour clock
- Perfect timer for dedicating to a test requiring several independent time measurements
- Unique memory returns channel to previously programmed setting at touch of a key
- When zero is reached, distinct alarm sounds and timer counts up showing time elapsed since alarm
- Timing range: 19 hours, 59 minutes, 59 seconds
- · Resolution: 1 second
- Accuracy: 0.01%
- Supplied with battery, magnetic back, Traceable certificate



06-662-3

#### Fisherbrand™ Traceable™ Triple-Display Timer

Cat. No.	Description
06-662-3	Triple-Display Timer

#### Traceable Three-Line Alarm Timer

# Unique, three-channel timer is perfect for use in all count up/down timing combinations.

- Features: clock, count up/down, alarm, stopwatch, memory
- Displays three different countdown times simultaneously
- Three unique channels may be started individually or concurrently
- Memories return the display to the previously programmed time
- Perfect timer to dedicate to a group of repetitive tests

- Alarm: sounds at zero, "Time's Up" is displayed, timer begins counting up
- Chemical-resistant ABS plastic case, magnetic back, flip-open easel
- Timing range: 99 hours, 59 minutes, 59 seconds
- · Resolution: 1 second
- Accuracy: 0.01%
- Supplied with clip, stand, magnet, battery, Traceable certificate



#### Fisherbrand™ Traceable™ Three-Line Alarm Timer

Cat. No.	Description
06-662-46	Three-Line Alarm

06-662-46

# Traceable Flashing LED Big-Digit Dual Channel Timer

## Compact, multitasker with six-digit, dual channel display.

- Features: two simultaneous countdown channels, flashing LED timing indicator/alarm, adjustable volume
- Unique visual indication for each channel; green light flashes while counting down and red light flashes once zero has been reached
- Adjustable volume: high decibel, low decibel, or off for silent flashing LED operation
- Timing range: 99 hours, 59 minutes, 59 seconds
- · Resolution: 1 second
- Accuracy: 0.01%
- Supplied with batteries, magnetic back, flip-open stand/ clip, opening for lanyard, Traceable certificate



06-664-252

#### Fisherbrand™ Traceable™ Flashing LED Big-Digit Dual Channel Timer

Cat. No.	Description
06-664-252	Flashing LED Big-Digit Dual Channel Timer



### Traceable 100-Hour Four-Channel Timer

#### A lab workhorse with timing on four channels.

- Features: count-down, time-of-day clock
- 99 hours, 59 minutes, and 59 seconds on four channels
- Alarm sounds for 60 seconds; may be silenced manually
- Battery powered

- ABS housing
- Flip-open stand with clip
- Supplied with Traceable certificate



#### Fisherbrand™ Traceable™ 100-Hour Four-Channel Timer

Cat. No.	Description
15-079-697	100-Hour Four-Channel Timer

# Traceable Digital Three-Channel Alarm Timer

#### Lab staple provides years of reliable service.

- Countdown, distinct alarm, and display indicator per channel
- Alarms sound for 60 seconds; may be turned off manually
- 10-hour timing range with one-second resolution
- LCD display
- Includes 2-year AA battery
- Supplied with chemical-resistant ABS plastic case, Traceable certificate



#### Fisherbrand™ Traceable™ Digital Three-Channel Alarm Timer

Cat. No.	Description
06-662-55	Digital Three-Channel Alarm Timer

06-662-55

### Traceable Auto Shut-Off Timer

#### Automatic shut off after 2 minutes of inactivity conserves battery power.

- Countdown times from 1 second to 99 minutes, 59 seconds with 0.01% accuracy
- Automatic bounceback memory for repetitive timing
- Large keys and 1-inch display

- Polished metal case with non-skid rubberized backing
- Magnetic back and easel stand
- Supplied with battery, Traceable certificate



#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Auto Shut-Off Timer

Cat. No.	Description
15-079-550	Auto Shut-Off Timer

### Traceable Visual Alarm Timer

# Ideal for repetitive tests.

- Counts down from 9,999 minutes in one-minute increments
- Resolution: 1 second for times under 99 minutes
- Select audible or flashing LED visual alarm
- Automatic memory resets to the last programmed time
- Thru-zero feature counts down, alarms, then counts up
- Digits are readable from a distance of 3m (10 ft.)
- Includes integrated magnet, stand, clip, and 2 AAA batteries



14-649-85

#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Visual Alarm Timer

Cat. No.	Description
14-649-85	Visual Alarm Timer



#### Traceable Jumbo Timer

#### Functions as a stopwatch and a clock.

- Timer range: 24 hours to 1 second
- Display: double-line LCD, each line 1 in. (2.5cm) high
- Resolution: 1 sec.Accuracy: 0.01%
- Memory recall

- Distinct alarm for each channel
- Alarm sounds for 1 minute or can be manually silenced
- Dimensions (L x W x H): 1.3 x 9.5 x 14cm (0.5 x 3.75 x 5.5 in.)
- Net weight: 5 oz. (140g)



06-662-47

#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Jumbo Timer

Cat. No.	Description
06-662-47	Jumbo Timer

# Traceable Two-Memory Timer

# Popular benchmate with memory is ideal for repetitive quality control tests and requirements.

- Features: count up/down, time-in/out, memories, alarm, 12/24-hour clock
- At zero, alarm sounds, "Time's Up" is displayed, and counting up begins
- LCD digits are 0.37 in. (9.5mm) high

- Timing range: 23 hours, 59 minutes, 59 seconds
- Accuracy: 0.01%
- · Resolution: 1 second
- Supplied with battery, magnet, flip-open stand/clip, Traceable certificate



06-662-44

#### Fisherbrand™ Traceable™ Two-Memory Timer

Cat. No.	Description
06-662-44	Two-Memory Timer

#### Traceable Nano Timer

#### Offers ultra-small size with intuitive operation.

- Features: countdown alarm time/stopwatch, count-up time, 12/24-hour clock
- Two timing channels
- Back clip with magnet

• Timing range: 23 hours, 59 minutes, 59 seconds

· Resolution: 1 second

• Accuracy: 0.01%

• Supplied with battery, magnetic back, Traceable certificate



14-649-83

#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Nano<sup>™</sup> Timer

Cat. No.	Description
14-649-83	Nano Timer

# Traceable Triple Purpose Timer

#### Displays count-down alarm time, stopwatch time, and time.

- Features: big digits, count-down alarm time, stopwatch, or 12/24-hour clock
- Always-ready memories on both countdown channels return display to previously programmed timing
- Timing range: 9 hours, 59 minutes, 59 seconds

- Resolution: 1 second
- Accuracy: 0.01%
- Supplied with battery, magnet, flip-open stand/clip, Traceable certificate



06-662-50

#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Triple Purpose Timer

Cat. No.	Description
06-662-50	Triple-Purpose Timer



# Traceable Flashing LED Alert Big-Digit Alarm Timer

#### Big-digit timer has it all: adjustable alarm, flashing LED, superb accuracy.

- Features: 1 in. (25mm) display, count up/down, alarm, flashing LED, adjustable volume, three countdown memories
- Green light flashes every second after timing reaches 10 seconds; red LED indicator flashes when zero is reached and shows time elapsed since alarm
- · Adjustable volume: high or low decibels or off
- Timing range: 99 minutes, 59 seconds
- · Resolution: 1 second
- Accuracy: 0.01%
- Supplied with batteries, magnetic back, flip-open stand/clip, opening for lanyard, Traceable certificate



## Fisherbrand™ Traceable™ Flashing LED Alert Big-Digit Alarm Timer

Cat. No.	Description
06-664-251	Flashing LED Alert Big-Digit Alarm Timer

06-664-251

# Traceable Extra, Extra Large Digit Countdown Timer

## Very large 1.5 in. (38mm) digits can be seen from a distance of 18m (60 ft.).

- · Features: count up/down, memory, alarm, stopwatch
- Unique memory returns channel to previously programmed setting at touch of a key
- Timing range: 99 minutes, 59 seconds

- · Resolution: 1 second
- Accuracy: 0.01%
- Supplied with hanger, clip, easel bench stand, magnetic back, battery, Traceable certificate



15-081-100

#### Fisherbrand™ Traceable™ Extra, Extra Large Digit Countdown Timer

Cat. No.	Description
15-081-100	Extra, Extra Large Digit Countdown Timer

#### Traceable GIANT-DIGIT Countdown Timer

#### View giant digits on your bench timer from across the room.

- Features: count up/down, alarm, memory, and stopwatch mode
- 34mm digit height viewable from 15m
- Countdown and alarm on single channel for ease of use
- Three button intuitive operation eliminates reading instructions
- · Automatic bounceback memory for repetitive timing
- Counts up during alarming indicating elapsed time since alarming
- · Counts up in stopwatch mode
- Timing range: 99 minutes, 59 seconds
- · Resolution: 1 second



#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> GIANT-DIGIT<sup>™</sup> Countdown Timer

Cat. No.	Description
02-261-839	GIANT-DIGIT Countdown Timer

# Traceable Mini-Alarm Stopwatch Timer

### Lab staple delivers multiple functions for routine, everyday timing needs.

- Features: count up/down, time-in/out, memory, extra-loud alarm, clock
- Numbered keys make it a breeze to set countdown time
- When zero is reached, alarm sounds, "Time's Up" flashes/counts-up, shows time elapsed since alarm
- Timing range: 99 hours, 59 minutes, 59 seconds

- Resolution: 1 second
- Accuracy: 0.01%
- Supplied with battery, magnetic back, flip-open stand, clip, opening for lanyard, Traceable certificate



14-649-15

#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Mini-Alarm Stopwatch Timer

Cat. No.	Description
14-649-15	Mini-Alarm Timer Stopwatch



# Traceable Countdown/Count Up Stopwatch Timer

#### Convenient, one-channel benchtop timer.

- Timing range: countdown from 100 min.; count up to 60 min.
- Accuracy: 0.01%Resolution: 1 second
- LCD display: 0.375 in. (9.5mm) high
- Thru-zero function

- Full keyboard (0 to 9 keys)
- Alarm sounds for one minute or can be manually silenced
- Dimensions: 5.71 x 6.35 x 1.27cm (2.25 x 2.5 x 0.5 in.)
- Supplied with spring fastener slip, hole for lanyard, clock, memory, Traceable certificate



#### Fisherbrand™ Traceable™ Countdown/Count Up Stopwatch Timer

Cat. No.	Description
14-649-14	Countdown/Countup Timer Stopwatch

# Traceable Lab-Top Timer

#### Innovatively designed display can be clearly seen from any angle.

- Features: count up/down, alarm, memory, clock, extra-large keys
- MEMORY button stores most recently programmed time
- Timing range: 23 hours, 59 minutes, 59 seconds
- · Resolution: 1 second
- Accuracy: 0.01%
- · Supplied with battery, Traceable certificate



06-662-45

#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Lab-Top Timer

Cat. No.	Description	
06-662-45	Lab-Top Timer	

# Traceable 100-Minute Benchtop Timer

# Jumbo-digit, lightweight portable lab staple is ideal for repetitive countdown tests.

- Features: count down, memory, large keys, extra-large digits, alarm
- Four LCD digits (0.75 in./19mm tall) show remaining time in minutes and seconds
- · Automatic memory resets display to last programmed time
- High-volume alarm sounds at zero for 30 seconds

- Timing range: 99 minutes, 59 seconds
- · Resolution: 1 second
- Accuracy: 0.01%
- Supplied with battery, magnet, flip-open stand, clip, Traceable certificate



#### 06-662-51

#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> 100-Minute Benchtop Timer

Cat. No.	Description
06-662-51	Benchtop Timer: 100-Minute

# Traceable Clip-It Timer

### Perennial favorite multi-tasking timer with handy attachment clip.

- Features: count up/down, alarm, time-in/out
- Memory saves last programmed setting for quick recall
- Timing range: 99 hours, 59 minutes, 59 seconds
- Resolution: 1 second
- Accuracy: 0.005% quartz-crystal
- Supplied with clip back, magnet, opening for lanyard, battery, Traceable certificate



06-662-23

#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Clip-It<sup>™</sup> Timer

Cat. No.	Description
06-662-23	Clip-It Timer with Clip Back



## Traceable Water-Resistant Flashing Timer

# Splash-proof, water-resistant timer is ideal for wet labs, wash-down areas, plants, and field use.

- Features: water-resistant, splash-proof, count up/down, alarm, lanyard
- At zero, the bright red LED flashes and audible alarm sounds for one minute or until turned off
- Timing range: 99 minutes, 59 seconds

- Resolution: 1 second
- Accuracy: 0.01%
- Supplied with lanyard, suction cup, magnet, hook-and-loop tape, battery, Traceable certificate



#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Water-Resistant Flashing Timer

Cat. No.	Description
06-664-40	Water-Resistant Flashing Timer

# Traceable 20-Hour Benchtop Timer

### Simple three-key use and large digits for easy viewing.

- Features: count up/down, alarm
- Easy three-key operation
- Timing range: 19 hours, 59 seconds
- Set times for up to 20 hours in one-minute increments
- One-minute alarm sounds at zero

- Very large 0.75 in. (19mm) LED digits
- Resolution: 1 minute
- Accuracy: 0.01%
- Supplied with battery, flip-open stand, magnet, Traceable certificate



06-662-49

#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> 20-Hour Benchtop Timer

Cat. No.	Description
06-662-49	Benchtop Timer: 20-Hour

# Traceable Vibrating Timer

#### Innovative countdown timer vibrates and flashes when time is up.

- Three alarm modes: audible, flashing, and vibrating
- Countdown and alarms on single channel
- Counts up in stopwatch mode
- Automatic bounceback memory for repetitive timing
- Counts up after zero to indicate elapsed time since alarm
- Set time in 1-second increments
- Resolution: 1 second
- Supplied with magnetic back, stand/spring-clip, Traceable certificate



## Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Vibrating Timer

Cat. No.	Description
14-650-124	Vibrating Timer

#### 14-050-124

# Traceable Water-Resistant/Steam-Proof Timer

# For food/beverage and wet labs, wash down areas, aquaculture, high-humidity environments, and field work.

- Features: water-resistance, splash-proof, count up/down, alarm
- At zero, the bright red LED flashes and an audible alarm sounds for one minute or can be manually silenced
- Timing range: 99 minutes, 59 seconds

- Resolution: 1 second
- Accuracy: 0.01%
- Supplied with lanyard, suction cup, magnet, hook-and-loop tape, battery, Traceable certificate



15-081-120

#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Water-Resistant/Steam-Proof Timer

Cat. No.	Description
15-081-120	Waterproof/Steamproof Timer



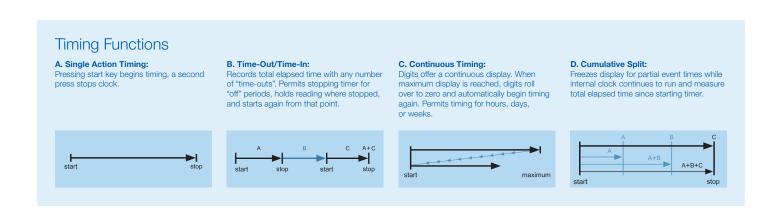
# Traceable Stopwatches

Fisherbrand Traceable stopwatches are used by industrial, educational, hospital, and other scientists who require precision timing for their research. They are durable and waterproof for use in a multitude of daily applications in the lab or in the field.

All Fisherbrand Traceable stopwatches are individually certified to be properly calibrated for accurate results. Please refer to the selection guide below to choose the right stopwatch for your particular application.

### Stopwatch Selection Chart

Cat. No.	Page	Timing Capacity	Traceable Certificate Supplied	Accuracy	Resolution	Timing Functions (See Below)	Features
14-649-7	60	24 Hours	Yes	0.0035%	1/100 Second	A, B, C, D	Big Digits
06-662-56	60	24 Hours	Yes	0.010%	1/100 Second	A, B, C, D	Water-Resistant
14-649-19	61	24 Hours	Yes	0.1%	1/100 Second	A, B, C, D	Disposable
14-648-3	61	24 Hours	Yes	0.001%	1/100 Second	A, B, C, D	Big Digits



# Traceable Big-Digit 24-Hour Chronograph/Stopwatch

#### Utility unit has complete stopwatch functions and full chronograph features.

- Features: big-digit display, chronograph, time in hours, minutes, seconds, AM/PM, date, day, time alarm
- Stopwatch functions: single action, time-in/out, cumulative split, continuous timing
- Extra-tough ABS plastic shockproof construction makes it ideal for lab and plant use
- Timing range: 23 hours, 59 minutes, 59 seconds
- Resolution: 0.01 second
- Accuracy: 0.0035%
- Supplied with battery, lanyard, Traceable certificate



#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Big-Digit 24-Hour Chronograph/Stopwatch

Cat. No.	Description
14-649-7	Big-Digit 24-Hour Chronograph/Stopwatch

# Traceable Water-Resistant/Shockproof Stopwatch

### Water-resistant and shockproof digital stopwatch.

- Features: time-in/out, continuous timing, cumulative split, chronograph, alarm
- LCD digits are 0.375 in. (19mm) high
- Sealed with O-ring; water-resistant to three atmospheres
- Accuracy: 0.01%
- Dimensions (L x W x H): 2 x 2.75 x 0.5 in. (5.4 x 6 x 1.3cm)
- Supplied with silver oxide battery, shockproof ABS plastic case, lanyard, instructions, Traceable certificate



#### Fisherbrand™ Traceable™ Water-Resistant/Shockproof Stopwatch

Cat. No.	Description
06-662-56	Waterproof/Shockproof Stopwatch



# Traceable Three-Button 24-Hour Stopwatch

#### Lightweight and inexpensive enough to be disposable.

- Features: count up, time-in/out, cumulative split, continuous timing, time, date, day of week
- Timing range: 23 hours, 59 minutes, 59 seconds
- Resolution: 0.1 second (between 0 to 30 minutes),
   1 second (to end of range)
- Accuracy: 0.1%
- Supplied with battery, lanyard, Traceable certificate



#### Fisherbrand™ Traceable™ Three-Button 24-Hour Stopwatch

Cat. No.	Description
14-649-19	Three-Button Stopwatch

# Traceable Jumbo-Digit Stopwatch

## Large digits (0.5 in./13mm high) are easy to read.

- Features: single-action, time-out, cumulative-split, continuous timing
- Water-resistant, O-ring-sealed, and shock-resistant ABS plastic case
- Displays time of day (hours, minutes, seconds), AM/PM, date, day of the week
- Time-of-day alarm

- Timing range: 23 hours, 59 minutes, 59 seconds
- Resolution: 0.1 second (first 30 minutes); 1 second (to end of range)
- Accuracy: 0.001%
- Supplied with battery, lanyard, clip, hook-and-loop tape, Traceable certificate



#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> Jumbo-Digit Stopwatch

Cat. No.	Description
14-648-3	Jumbo-Digit Stopwatch

# Traceable Clocks

Fisherbrand Traceable clocks are great timekeepers for labs, offices, or other work environments. Most can be hung on the wall and may also display the ambient temperature and humidity.

Traceable Clocks are available in digital, atomic digital, or conventional analog formats. Traceable Analog Clocks display the time with bright, sweeping hands. Traceable Atomic Clocks receive a radio signal from atomic clocks in Boulder, Colorado, to provide you with the exact time. They are accurate to 1/10,000 of a second with a resolution of 1 second.

You will receive an individually serial-numbered Traceable certificate from an ISO 17025 calibration laboratory accredited by A2LA with each clock. The certificate indicates traceability for time only to NIST standards.

#### Traceable Calendar Thermometer Clock

### Unique clock combination shows the time, month, day, date, and temperature.

- Large LCD digits (2.125 in./5.4mm) visible from 35 ft. (10.7m)
- Two-tone color face, slim silhouette
- Wall-mounted
- Battery operated

- Accuracy: 0.01%
- Displays temperature in Centigrade or Fahrenheit scale
- Dimensions (W x H x D): 9.25 x 10 x 1 in. (23.5 x 25.4 x 2.5cm)
- Supplied with battery, Traceable certificate



#### Fisherbrand™ Traceable™ Calendar Thermometer Clock

Cat. No.	Description
14-648-5	Calendar Thermometer Clock

14-648-5

# Traceable Big-Digit Radio Atomic Wall Clock

#### Receives signals directly from the world's most accurate timekeeper.

- Displayed numbers are visible from 20 ft. (6.1m)
- Receives signals from NIST in Boulder, CO
- Automatically adjusts time, daylight savings, leap year, leap seconds
- Accurate to 0.0001 of a second

- Dimensions (W x H x D): 8.8 x 8.8 x 0.9 in., (22.3 x 22.3 x 2.2cm)
- Supplied with wall mount, screw, 2 AA batteries, Traceable certificate



## Fisherbrand™ Traceable™ Big-Digit Radio Atomic Wall Clock

Cat. No.	Description
06-664-12	Big-Digit Radio Atomic Wall Clock

06-664-12

#### Traceable GIANT-DIGITS Radio Atomic Clock

### View time, temperature, and humidity from anywhere in the lab.

- Radio signal from NIST's Colorado atomic clock automatically sets correct date/time
- Features: month/date/day, alarm, temperature, humidity, weather forecast indicators
- Giant digits (4.5 in./11.4cm) are visible from 200 ft. (61m)
- Temperature range: -5° to +50°C (23° to 122°F); resolution: 0.1°; accuracy: ±1°C

- Humidity range: 20 to 90% RH; resolution: 0.1% RH; accuracy: ±5% RH mid-range (±7% RH otherwise)
- Remote sensor
- Dimensions (W x H x D): 17 x 11.3 x 1.3 in. (43 x 29 x 3.3cm)
- Supplied with bench stand, wall mount, batteries, Traceable certificate



#### Fisherbrand™ Traceable™ GIANT-DIGITS™ Radio Atomic Clock

Cat. No.	Description
15-079-680	GIANT-DIGITS Radio Atomic Clock with Humidity

## Traceable Thermometer/Humidity Monitor/Clock

### Measures ambient temperature, relative humidity, and tells time.

- Three-line LCD display with 0.5 in. (13mm) high digits
- Toggle between Celsius and Fahrenheit scales
- Temperature range (dual): 0° to 50°C and 32° to 122°F
- Temperature accuracy: ±1°C; resolution: 0.1°C/°F
- Relative humidity range: 20 to 90%; resolution: 1% RH; accuracy: ±8%
- Clock shows time of day to the minute; accuracy: 0.0190 seconds
- Memory recalls highest and lowest temperature and humidity readings
- Flip-down easel for desktop use
- Dimensions (H x W x D): 4.25 x 2.25 x 0.5 in. (10.8 x 5.7 x 1.3cm)
- Supplied with 1.5V AAA battery, stand and wall mount, Traceable certificate



#### 06-662-4

#### Fisherbrand™ Traceable™ Thermometer/Humidity Monitor/Clock

Cat. No.	Description
06-662-4	Thermometer/Clock/Humidity Monitor



# Traceable Thermometer/Humidity Meter/Clock

# Bright, sweeping hands simultaneously display time, temperature, and humidity on wall.

- Track current time, temperature, and humidity
- Displays time to the second with 0.01% quartz crystal accuracy
- Temperature range: -20° to +55°C (-4° to +131°F)
- Relative humidity range: 0 to 100%
- Diameter: 10 in. (25.4cm) with 9.75 in. (24.8cm) dial
- Includes one AA battery, screw for wall mounting, Traceable certificate



#### Fisherbrand™ Traceable™ Thermometer/Humidity Meter/Clock

Cat. No.	Description
06-664-10	Thermometer/Humidity Meter/Clock

06-664-10

#### What is Traceable?

In science, traceability refers to an unbroken chain of comparisons of a measurement to a known standard. The Traceable brand is applied to products that are certified for traceability to the National Institute of Standards and Technology (NIST). NIST is a non-regulatory U.S. government agency within the Department of Commerce.

# Traceable Conductivity Standards and pH Buffers

Traceable Conductivity Standards and pH Buffers are Certified Reference Material (CRM) standards. Highly accurate, they are available in 16-ounce (473mL) bottles and in One-Shot™ packaging (6 x 100mL) for single use. A certificate documenting traceability to NIST standards is shipped with each product.

### Traceable Conductivity Standards (CRM)

- · Compatible with all conductivity meters
- Each bottle is labeled for calibrating conductivity, resistivity, and dissolved solids
- Supplied with step-by-step calibration instructions, individual temperature compensation charts, traceability information, and Traceable certificate
- Available in 16 oz. (473mL) bottles or single-use One-Shot packaging
- Manufactured in facilities that meet Material Accredited ISO Guide 34 (1750.02), ISO Guide 35, ISO Guide 31, ISO/IEC 17025 (1750.01)



Microsiemens/ Microhms	Megohms	TDS/PPM	16 oz. (473mL) Bottle	Individually Tested 16 oz. (473mL) Bottle	One-Shot
			Cat. No.	Cat. No.	Cat. No.
1	1	0.66	15-077-945	15-077-946	N/A
5	0.2	3.3	06-664-24	15-077-947	06-664-25
10	0.1	6.6	09-328-1	15-077-948	09-328-6
100	0.01	66	09-328-2	15-077-949	09-328-7
1,000	0.001	666	09-328-3	15-077-950	09-328-8
1,413	0.00071	933	09-328-11	15-077-951	09-328-12
10,000	0.0001	6,666	09-328-4	15-077-952	09-328-9
100,000	0.00001	66,666	09-328-5	15-077-953	09-328-10
150,000	0.000006	100,000	06-664-265	06-664-267	06-664-268
200,000	0.000005	133,333	06-664-266	06-664-274	06-664-275

Cat. No.	Description
09-328-20	One-Shot Assortment (one each except for 06-664-25, 06-664-268, 06-664-275)



## Traceable Expanded Range Conductivity Meter

#### Accurate answers in five seconds.

- Eliminates operator error turn on, insert probe, and read conductivity and temperature
- Backlit, large dual LCD display; HOLD button to freeze screen
- Temperature range: 0° to 80°C (32° to 176°F); resolution: 0.1°; accuracy: 0.6°C
- Instant-response epoxy probe with platinum electrodes; solid-state thermistor ATC
- K-factor adjustment
- Adjust TDS factor from 0.4 to 1
- Saves up to five unique calibration settings (one per range)
- Temperature compensation disables to meet requirements of United States Pharmacopoeia, National Formulary, 645 Conductivity Measurement (USP-NF)
- Tough, chemical-resistant ABS plastic housing
- 5 conductivity ranges from 0.00 to 19.99 microsiemens, and 1 to 199.9 millisiemens
- 5 TDS ranges from 0 to 9.99ppt, and 0 to 999ppm



#### Fisherbrand™ Traceable™ Expanded Range Conductivity Meter

Cat. No.	Description
15-077-977	Expanded Range Conductivity Meter

15-077-977

## Traceable Conductivity/TDS/Salinity Pens

# Choose units to measure conductivity, conductivity/total dissolved solids, or salinity.

- Eliminates operator error simply turn on, insert, and read results
- Constructed for severe lab or harsh plant environment use
- Arrow key allows fast setting to calibration standards
- Fulfill requirements for CAP, ASTM, NCCLS, CLSI, ACS, CLIA, AOAC, EPA, APHA, AWWA, WEF, USGS, USP, ISO, and Federal/State regulations
- Includes: battery and Traceable certificate

## Fisherbrand™ Traceable™ Conductivity/TDS/Salinity Pens



15-078-200

	Conductivity Meter Pen Conductivity/TDS Meter Pen		Salinity Meter Pen
Cat. No.	15-078-200	15-078-201	15-078-202
Conductivity Range	0 to 1999 microsiemens	s; 0 to 19.99 millisiemens	N/A
Dissolved Solids (TDS) Range	N/A	N/A 0 to 1999ppm; 0 to 19.99ppt	
Salinity (NaCl) Range	N/A	N/A	0.00 to 10.00ppt; 10.1 to 70.0ppt
Resolution	1 microsiemen	1 microsiemen/1ppm	0.01ppt
Accuracy	±1% full scale + 1 digit		±2% full scale + 1 digit
Temperature Range	0.0 to 50.0°C/32.0 to 122.0°F		
Temperature Resolution	0.1°		
Temperature Accuracy	±0.5°		
Settable Temperature Coefficient	0.0 to 4.0% per °C		N/A
Automatic Temperature Compensation	20 and 25°		25°
TDS Factor	N/A 0.4 to 1.00		N/A
Calibration			
Standards	400 microsiemens to 19.99 millisiemens	400 microsiemens to 19.99 millisiemens; 400ppm to 19.99ppt	0.20 to 7.00%

# Traceable pH Buffer Standards

#### The most accurate pH standards available anywhere.

- Compatible with all pH instruments and electrodes
- Accuracy: ±0.010 pH at 25°C
- Products made using International Union of Pure and Applied Chemistry (IUPAC) formulation feature long-term buffer stability and resistance to temperature changes during calibration
- Triple layered proprietary packaging prevents contamination by permeable gases
- Two-year shelf life
- Includes: temperature compensation charts, traceability information, and Traceable certificate



06-664-262

06-664-263 06-664-264

#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> pH Buffer Standards (CRM)

pH Value	Color	16 oz. (473mL) Cat. No.	One-Shot (6 x 100mL) Cat. No.
4.005	Clear	06-664-259	06-664-262
7.000	Clear	06-664-260	06-664-263
10.012	Clear	06-664-261	06-664-264

# Color-Coded pH Buffers

#### For accurate, reproducible pH calibrations.

- Compatible with all pH instruments and electrodes
- Stable; resist temperature changes during meter calibration
- Meet the requirements of federal, state, and local agencies
- Triple-layered proprietary packaging prevents permeable gas contamination
- Includes: temperature charts, traceability information, and Traceable certificate



15-078-285

15-078-286

15-078-287

#### Fisherbrand™ Traceable™ Color-Coded pH Buffers (Certified Reference Material, ISO Guide 34)

pH Value	Color	16 oz. (473mL) Cat. No.	One-Shot (6 x 100mL) Cat. No.
4.005	Red	15-078-280	15-078-285
7.000	Yellow	15-078-281	15-078-286
10.012	Blue	15-078-282	15-078-287



# Traceable pH/ORP/Temperature Meter

### Compact, single unit measures critical water quality parameters.

- Triple display shows pH or ORP measurement, temperature, and time/date
- Rugged and waterproof (IP67)
- Stores 25 data points with time/date stamp
- Three-point pH calibration; guided calibration and check standard routines
- Stabilization alerts and visual measurement lock

- Includes: ISO Guide 34 CRM Traceable pH buffers,
   2 x CR2032 3V batteries, user guide, and carrying case
- pH range: 0.00 to 14.00; resolution: 0.01 pH; accuracy: ±0.02 pH
- ORP range: -1800 to +1800mV; resolution: <0.1mV (<1000mV), otherwise 1mV; accuracy: ± 20mV</li>
- Temp range: 0.0° to 60.0°C (32.0° to 140°F); resolution: 0.1°: accuracy: ±1°C



#### Fisherbrand<sup>™</sup> Traceable<sup>™</sup> pH/ORP/Temperature Meter

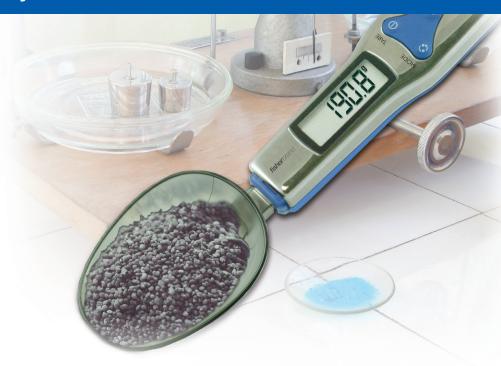
Cat. No.	Description
14-650-115	pH/ORP/Temperature Meter



14-650-115

# Traceable Laboratory Tools

Fisherbrand™ Traceable™ Lab
Tools include Digital Calipers,
a SpatulaBalance, and
Manometer/Pressure/Vacuum
Gauges. These products are
also supplied with a Traceable
certificate that indicates
traceability to NIST standards.



# Traceable Manometer Pressure/Vacuum Gauges

# Quick response portable manometer with recall memory for high and low readings.

- Measures and displays differential pressure/vacuum in eleven different units: psi, mbar, bar, cm/H<sub>2</sub>O, inch/H<sub>2</sub>O, feet/H<sub>2</sub>O, mm/Hg, inch/Hg, kg/cm<sub>2</sub>, oz./inch<sub>2</sub>, kPa
- Count-up timer: up to 99 hours, 59 minutes, 59 seconds
- Accuracy: ±0.3% of full scale (between 0 and 50°C)
- Fits tubing with I.D. from 1.6mm to 4.8mm
- Dimensions (L x W x H): 7 x 2.9 x 18cm
- Includes: computer output, tubing, batteries carrying case,
   Traceable certificate



### Fisherbrand™ Traceable™ Manometer Pressure/Vacuum Gauges

Cat. No.	Pressure Range
06-664-19	-15 to 15psi (776 to 776mm Hg)
06-664-21	-30 to 30psi (-1551 to 1551mm Hg)

06-664-19



# Traceable Digital Calipers

#### Ideal for measuring inside diameter, outside diameter, and depth.

- Measure in inches and millimeters
- Zero button resets instantly to set a floating zero or reference point
- No lubrication required
- Battery lasts for 10,000 hours
- Includes: carrying case, battery, Traceable certificate



#### Fisherbrand™ Traceable™ Digital Calipers

Cat. No.	14-648-17	06-664-16	15-077-957	15-077-958
Material	Stainless Steel		Carbon Fiber	
Measuring Range	150mm	200mm	100mm	150mm
Resolution	0.1mm			
Accuracy	±0.3mm		±0.2mm	
Depth Bar	Yes		No	
Thumb Roller/Lock Screw	Yes		No	
Non-Conductive	No		Ye	es
Dimensions	229 x 76mm	280 x 76mm	178 x 63mm	241 x 76mm

#### **Replacement Battery**

Cat. No.	Description
02-440-1C	Alkaline Button Cell Battery

# Traceable SpatulaBalance

### Unique spatula both scoops material and displays weight.

- · Capacity: 30mL
- · Graduated from 5 to 30mL in 5mL increments
- Weight range: 0 to 300g (0 to 10.580 oz.);
   resolution: 0.1g (0.005 oz.); accuracy: ±0.2g (±0.25%)
- Keys to tare, hold display, and toggle between grams and ounces
- Low battery indicator
- Scoop detaches for cleaning
- Includes: batteries, detachable scoop, Traceable certificate



### Traceable Tachometer with Red LED Pointer

# Handheld point-and-shoot measurements for centrifuges, pumps, rollers, shafts, gears, motors, and other moving surfaces.

- Place reflective tape on rotating objects for no-touch measurements
- Range: 10 to 99,999 revolutions per minute (RPM)
- See table below for resolution and accuracy

- LCD digits are visible from 3m (9 ft.)
- Low battery indicator
- Impact-resistant ABS case
- Includes: Traceable certificate



### Fisherbrand™ Traceable™ Tachometer with Red LED Pointer

Range	Resolution	Accuracy
10 to 99.99 RPM	0.001 RPM	±0.04% of Reading + 0.02 RPM
100.00 to 999.99 RPM	0.01 RPM	±0.04% of Reading + 0.2 RPM
1,000.00 to 9,999.99 RPM	0.1 RPM	±0.04% of Reading + 2 RPM
10,000 to 99,999 RPM	1 RPM	±0.04% of Reading + 22 RPM

Cat. No.	Description
02-401-3	Laser Tachometer

#### What is Traceable?

In science, traceability refers to an unbroken chain of comparisons of a measurement to a known standard. The Traceable brand is applied to products that are certified for traceability to the National Institute of Standards and Technology (NIST). NIST is a non-regulatory U.S. government agency within the Department of Commerce.

# Traceable Product FAQs

#### Q. What is Traceable?

A. In measurement science, traceability means that a measurement can be traced back to an official authority. One example is the National Institute of Standards and Technology (NIST), a government agency within the United States Commerce Department. Traceability is based on the known valid relationship to an international or nationally recognized standard and a documented unbroken chain of reference to that authority. The ISO 17025 calibration certificate that comes as standard with the units is recognized in all European countries.

#### Q. Why should I choose Traceable products?

A. Each Traceable product is individually calibrated and certified. The Traceable Calibration Certificate provides assurance that an independent auditor has checked the methods, procedures, testing, technique, and record-keeping practices of the calibration testing laboratory.

The American Association for Laboratory Accreditation (A2LA) is widely recognized internationally as an acceptable auditor and has bilateral and multilateral agreements and participation with the International Laboratory Accreditation (ILAC) and Multilateral Recognition Agreement (MRA).

All European governing bodies fully accept and recognize the Traceable certificate of calibration, so there is no need to have the units calibrated locally before use.

# Q. For how long are the Traceable calibration certificates valid?

A. At the time of manufacture, units are calibrated for a period of two years from the manufacture date. To allow for inventory and shipping times, most products will be Traceable for at least one year.

#### Q. What is accuracy?

**A.** Accuracy is defined as the difference between the actual value and its measurement. For example, when a thermometer reads 100°C, one expects that the actual temperature is also 100°C. The difference between the actual and measured value is typically accompanied by a tolerance that indicates the level of inaccuracy. If an instrument has an accuracy of ±1°C, one can expect that the temperature measurement will vary by 1°C (higher or lower) than the actual temperature. A lower number indicates a more-accurate meter, since the variation from the actual number is less.

#### Q. What is resolution?

**A.** An instrument's resolution is the smallest increment of the measurable scale. An instrument with a 0.1°C resolution will produce a result to the nearest 0.1°C (like 8.6°C); a 1°C resolution will produce results in whole numbers only (like 9°C).

# Q. After I replace the battery on my Traceable Timer, does it also need to be recalibrated?

**A.** Fisherbrand Traceable products do not need to be recalibrated or recertified when the battery is changed.

# Q. What is the meaning of the terms MIN/MAX, HI/LO, and IN/OUT?

- A. MIN/MAX refers to the lowest (minimum) and highest (MAX) temperature readings taken by the device since its memory was last cleared. MIN/MAX is not a settable feature.
  - Some units allow separate alarm settings for values that exceed (HI) or fall below (LO) your acceptable temperature range. The Hi or Low alarm will sound if the monitored temperature falls outside of pre-set values
  - IN and OUT refer to the location of the sensors: IN (internal) sensors are located within the unit and OUT or external probes can be placed at a distance from the unit.

#### Q. What are the advantages of the bottle/vaccine thermometer probes?

A. Bottle probes are very useful in constant temperature environments like refrigerators and incubators. Air temperatures can fluctuate widely when the equipment doors are frequently opened and closed. Enclosing the probe in a liquid solution protects the probe against air temperature changes and simulates the internal temperatures of liquid reagents and other materials. Bottle probes are typically free-standing; vaccine bottle probes are similar in size to most vaccine bottles, which allow them to be placed in the same storage rack as the vaccine

#### Q. What material is used in bottle-sealed probes?

A. Bottle probes are usually filled with a non-toxic glycol solution, which is GRAS (generally recognized as safe) by the FDA. Other bottles may be filled with glass beads to simulate dry conditions.

# Q. Which product should I choose if my application requires high accuracy?

**A.** The various Ultra Traceable products have an accuracy of 0.4°C at their tested calibration points. Extreme accuracy units are calibrated to an accuracy of ±0.05 within 2°C of tested calibration points (typically 0°C, 25°C, and 37°C). Thermometers with Platinum probes will have an accuracy of ±0.1°C across their entire temperature range.

#### Q. Why am I getting erratic readings from my thermometer?

**A.** Low battery power can result in erratic readings, a faint display, or no display at all. In most cases, changing the battery will return the unit to normal function.

# Q. Why are the temperature readings from two of my units different from each other?

A. When comparing two thermometers, add the tolerances of both units to determine the total variance considered to be within specification. For example, for two units that each have a ±1°C accuracy, their temperatures may be up to 2°C different. When comparing temperatures from more than one thermometer, the type of probes should also be equivalent.



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