



ValProbe®

WIRELESS PROCESS VALIDATION DATA LOGGER SYSTEM



ValProbe Wireless Process Validation

Kaye ValProbe is a wire-free process validation logger system designed around the measurement and reporting requirements of the most intensely regulated industries. It simplifies access to hostile, remote, and hard-to reach environments by eliminating hard-wired sensors, greatly reducing study setup time and associated costs.

The ValProbe system is ideally suited for applications where high measurement accuracy, extreme environmental conditions and regulatory compliance are priorities, including:

- Pharmaceutical Processing
- Medical Device Sterilization
- Food Processing
- Environmental Monitoring

The ValProbe family of data loggers provide accurate, convenient, and reliable process measurements for

a wide range of pharmaceutical and medical device applications. A wireless design greatly simplifies monitoring and validation of severe and hard-to-reach environments. See the table below for logger-types and recommended applications.

Built in data processing and reporting capabilities extend the ValProbe system's operating convenience far beyond data acquisition alone. The ValProbe system performs calculations and generates custom user-defined reports for up to 200 sensors at once. Graph reports can include many sensors and limits for easy review of study data.

Along with the new CTR-25 Temperature Reference, user verification is a quick and easy process. Of course, ValProbe satisfies FDA Regulation 21 CFR Part 11 requirements for electronic signatures and records, and complies with EN 554 for saturated steam sterilization.

Kaye ValProbe Data Logger	Temperature Rigid Logger	Temperature Flexible Logger	Temperature Bendable Logger	Temp Freeze Dryer Logger	Pressure/Temp Logger	Humidity/Temp Logger
Steam Sterilizers	✓	✓	✓	✓	✓	
Dry Heat Sterilizers			✓			
Steam in Place (SIP)	✓	✓	✓		✓	
Water Cascade / Fall Sterilizer	✓	✓	✓	✓	✓	
Incubators	✓	✓	✓			✓
Stability Chambers	✓	✓	✓			✓
Freezers	✓	✓	✓	✓		
Freeze Dryer / Lyophilization	✓	✓	✓	✓		
Vessels	✓	✓	✓		✓	

APPLICATIONS

- Steam Sterilizer (Autoclaves)
- Dry Heat Sterilizers
- Washer Disinfectors
- Steam in Place SIP
- Water Cascade/Fall Sterilizers
- Incubators
- Stability Chambers
- Freezers
- Freezy Dryer/Lyophilisation
- Vessels

MARKETS

- Pharmaceutical Processing
- Medical Device Sterilization
- Food Processing
- Environmental Monitoring



CHALLENGES

Pharmaceutical industries are faced with increasing operational challenges:

- A need for reliable data even in harsh conditions, extreme cold or hot temperatures.
- More complex and time consuming data organization.
- Increasing costs and times of validation and re-validation.
- Data Integrity – being compliant with the newest norms and standards.
- Increased IT security and lockdowns on portable data.
- Continuous changes in operating systems:
 - Hardware compatibility
 - Complex software operation

SOLUTIONS

- RTD technology delivers unrivaled measurement accuracy over a wide operating range
- Simultaneous system downloads of up to 10 probes
- Easily defined cycle-based data collection, calculation, and reporting from up to 200 sensors
- Enables compliance with FDA Regulation 21 CFR Part 11
- Operates from -85°C to 360°C and up to 10 BAR absolute
- Designed for easy on-site verification
- Battery life indicator and field replaceable battery
- Reporting capability with user programmable groups



ValProbe System

The ValProbe system is designed to provide easy access to process and validation study data. Using the ValProbe Reader Station it is easy to program all your loggers.

The ValProbe Reader 2 programs and collects data from up to 10 ValProbe loggers simultaneously. The system is specially designed to be extremely reliable under harsh conditions ex. 0-10 bar and -85°C to 360°C. Included automated logger user verification simplifies regular logger verification.

FEATURES

- Capacity of up to 100 loggers/200 sensors.
- Automated user verification of multiple loggers.
- An operator programmable sample rate, start, delay, and stop functions.
- ValProbe system software satisfies international regulatory requirements including FDA 21 CFR part 11, EN285, DIN ISO 17665.
- A temperature range of -85 to 360°C
- Up to 10.000 samples per sensor.
- Scan Rate down to 1 second.
- Customer interchangeable batteries.
- Accuracy up to 0.1°C.

ValProbe Reader 2

The Reader 2 serves as the interface between individual loggers and the ValProbe System software. It is used for qualification and verification studies.

Loggers are programmed via the straight forward ValProbe system interface. The ValProbe USB high speed Reader 2 can accommodate 10 probes at once for programming and downloading stored data.

FEATURES

- Reader 2 can program/read 10 loggers simultaneously
- Compact design for field or desktop operation
- USB or RS232 connection
- LED indicator to confirm data communication
- CE, UL certified
- Compatibility for Kaye IRTD connection
- Operation between 100 – 240V



ValProbe Temperature Loggers

TEMPERATURE RANGE FROM -85°C TO 360°C

The ValProbe logger family of temperature loggers are designed for accurate, convenient, and reliable process measurement for pharmaceutical and biotechnical applications. The wireless design greatly simplifies monitoring and validation of severe and hard-to-reach environments.

RTD technology delivers unrivalled measurement accuracy. The logger's electronic design permits usage of cost effective field replaceable batteries and guarantees long battery life. Probes are available in rigid, flexible, and bendable versions.



TEMPERATURE LOGGER – RIGID

Features

- Temperature range for complete logger: -85°C to 140°C
- Single sensor only
- Sensor length 1.5, 3, 6, 9"
- Sensor diameter 3mm (0.118")



FREEZE DRYER LOGGER – TEMPERATURE RANGE TO -85°C

The freeze dryer logger offers the ultimate wireless surface measurement and performance.

Features

- Temperature range for complete logger: -85°C to 140°C
- Ultra-flat surface sensor
- Surface sensor diameter 32mm
- Optimized surface temperature design, with the ability to work at low vacuum



TEMPERATURE LOGGER – FLEXIBLE

Features

- Temperature range for complete logger: -85°C to 140°C
- Sensor length 40"
- Sensor tip diameter 2.4mm (0.095"), length 25mm (1")



TEMPERATURE LOGGER – BENDABLE SINGLE AND DUAL SENSOR LOGGER

Features

- Temperature range for logger sensor: -85°C/45°C to 360°C
- Single and dual bendable sensor available
- Sensor length 12, 24, 36"
- Sensor diameter 2.4mm (0.095")



PRESSURE AND TEMPERATURE LOGGER

The ValProbe Pressure/Temp Logger provides a wide temperature range from 0°C to 140°C and a single solution for pressure and temperature measurements for pressure up to 5bar. RTD Technology delivers high measurement accuracy and the logger's electronic design allows usage of cost effective field replaceable batteries and guaranties long battery life.

Features

- Temperature range for complete logger: 0°C to 140°C
- Pressure range 0 to 5 bar, 1mbar resolution
- ¼ NPT connection fitting



HUMIDITY AND TEMPERATURE LOGGER

The ValProbe humidity logger is designed for accurate, convenient, and reliable humidity measurements in pharmaceutical, medical device, and food processing applications.

Features

- High accuracy humidity and temperature measurement in a single unit
- 10,000 data sample memory
- Economical field-replaceable battery



ValProbe Specifications

KAYE VALPROBE GENERIC SPECIFICATIONS

Reader 2 Dimensions	320mm x 155mm x 60mm (12,60" x 6,10" x 2,36")	Real-Time Clock Accuracy	< 15sec/day
Logger Dimensions	Height: 48mm / Diameter: 36mm (Height: 1,9" / Diameter: 1,4")	Calibration	NVLAP/DAkkS Calibration
Logger Material	Stainless Steel 316L and Peek	Verification	Automated User Verification capability
Battery	Field replaceable – 3.6V Lithium	Sensing Element	Precision Platinum RTD
Sampling Rate	1 sec to 12 hours	Environmental Temperature	-85°C/-45°C to 140°C
Data Storage	10,000 Samples retained in non-volatile memory	Environmental Pressure	0–10 bar absolute
		Environmental Humidity	0–100% condensing
		Regulatory Compliance	UL and CE

KAYE VALPROBE TEMPERATURE LOGGERS SPECIFICATIONS

Specifications	Rigid	Flexible	Bendable	Surface
Sensor Type	Single Sensor	Single Sensor	Single and Dual Sensor	Ultra Flat Surface Sensor
Sensor Length	1.5, 3, 6, 9" inches (38, 76, 152, 229mm)	40" inches (1000mm)	12, 24, 36" inches (305, 610, 915mm)	-
Tip Diameter	0.118" (3mm)	0.095" (2.4mm)	0.095" (2.4mm)	1.26" (32mm)
Measurement Range	-85°C / -45°C to 140°C	-85°C / -45°C to 140°C	-85°C / -45°C to 400°C	-85°C to 140°C
Accuracy	-85°C to 0°C, ±0.25°C / Cryo VP; -45°C to 0°C, ±0.25°C / Standard VP; 0°C to 140°C, ±0.1°C	-85°C to 0°C, ±0.25°C / Cryo VP; 45°C to 0°C, ±0.25°C / Standard VP; 0°C to 140°C, ±0.1°C	±0.25°C from -85°C to 0°C / Cryo VP; ±0.25°C from -45°C to 0°C / Standard VP; ±0.1°C from 0°C to 140°C; ±0.2°C from 140°C to 250°C; ±0.5°C from 250°C to 360°C	-85°C to 0°C, ±0.25°C; 0°C to 140°C, ±0.1°C

KAYE VALPROBE PRESSURE, TEMPERATURE AND HUMIDITY LOGGER SPECIFICATIONS

Specifications	Pressure & Temp	Humidity & Temp
Environmental Temperature	0°C to 140°C	0°C to 90°C
Sensor Type	Single P/T Sensor	RH: EMD4000
Tip Diameter	1/4" NPT Connection Fitting	Diameter 18mm (0,71") Length 35mm (1,38")
Measurement Range	0°C to 140°C/ 0–5bar abs.	25% to 85% RH
Accuracy	0°C to 120°C; ±25mb 120°C to 135°C; ±10mb 135°C to 140°C; ±25mb 0°C to 140°C; ±0.1°C	25% to 85% RH; ± 2% RH (at 25°C to 40°C) 0°C to 90°C; ±0.1°C

ValProbe Software Study Set-Up

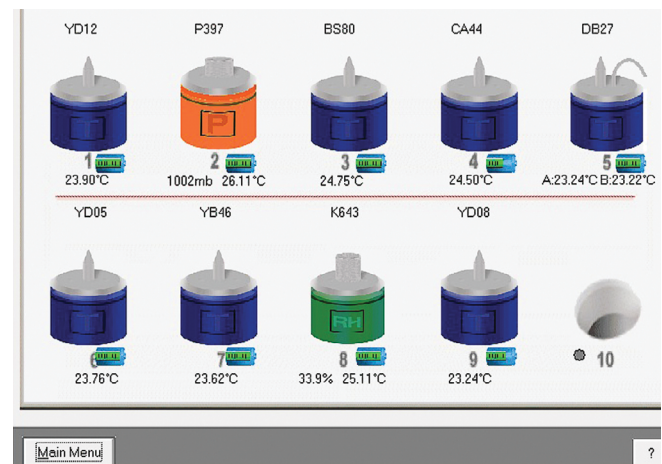
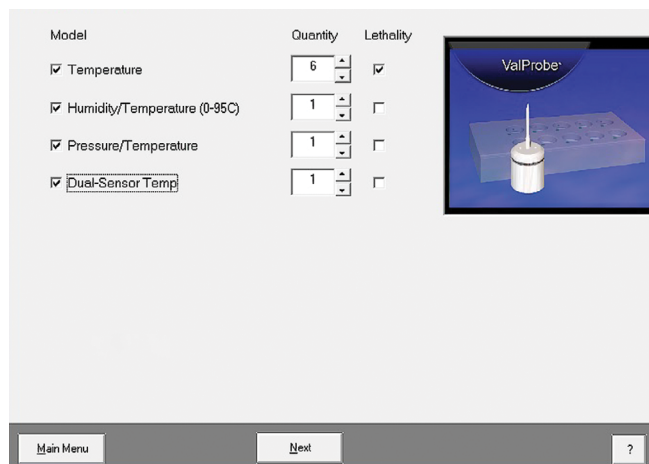
INTUITIVE AND VERSATILE

The software, provided with all Kaye products, permits set-up, qualification and calibration runs, generating validation reports, and enables compliance with regulations including CFR21 Part 11 and EN norms. The Kaye ValProbe software is designed to provide data from your validation study quickly and easily. The ValProbe software enables you to set up and customize sensor calibration, qualification, and report generation.

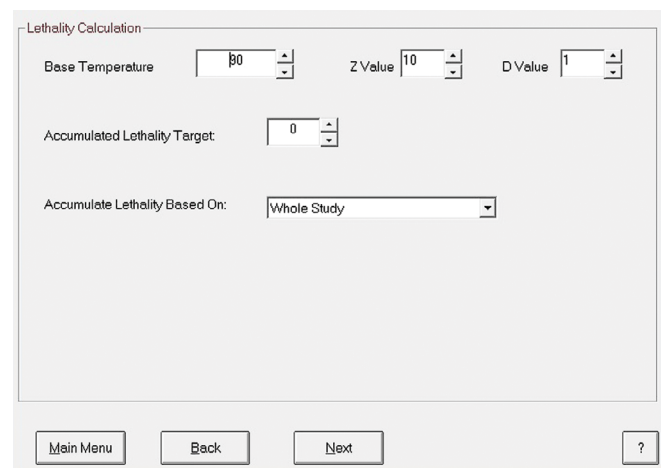
You can customize reports right down to the header information and user comments for each group. In addition, you can enter summary comments that relate to the entire study. The Kaye ValProbe software

provides flexibility in many ways, ex. define sensors individually – create your own labels and detailed descriptions, or apply individual sensor definitions to a range of sensors.

Featuring interval calculations and monitored events, the Kaye ValProbe provides more information about your study. You can calculate maximum, minimum, and averages for each sensor during cycles. Users can add unlimited cycles, separate qualification data into different process phases, and create up to 25 groups each with their own calculations and graphs during reporting; thus often eliminating the need for post-processing in Excel®.



Set up or modify lethality calculations by defining base temperature, Z, and D values. Select conditions when you want to calculate lethality.



ValProbe Software Qualification/Study

QUALIFICATION

The Kaye ValProbe software interface provides access to the Kaye ValProbe loggers, via the Kaye ValProbe reader where you can program multiple loggers with start/stop events and sample rates.

During a qualification study each logger collects and stores study data in internal memory. When the qualification study is complete, the data stored in each logger's internal memory must be read into the ValProbe program in order to generate reports. The Kaye ValProbe software verifies and transfers collected data to a secured data file. The data file, which meets the requirements of 21 CFR part 11, is then used to create reports that documents the study results.

The screenshot displays the 'Event Configuration' screen with three sections:

- Start Event:** Set to 'Start on Temperature'. Includes 'Start at Temperature' (20 °C) and 'Sampling Rate' (5 minutes).
- Change Event:** Set to 'Change on Both Time and Temperature'. Includes 'Change at Time' (10 hours, 0 minutes) and 'Change at Temperature' (0 °C). Sampling Rate is 2 seconds.
- Stop Event:** Set to 'Stop on Both Time and Temperature'. Includes 'Stop at Time' (24 hours, 0 minutes) and 'Stop at Temperature' (10 °C).

Navigation buttons at the bottom: Main Menu, Back, Next, and a help icon (?).

LOGGER VERIFICATION

Kaye the original creator of the Automatic Logger Calibration/Verification feature has included enhancements eliminating manual methods of logger verification resulting in better accuracy.

Kaye ValProbe is compatible with existing Kaye IRTD and calibration baths. The Automatic Calibration/Verification feature minimizes training and ensures accurate and repeatable verifications, all while being well documented.

The screenshot displays the 'Logger Verification' screen with the following settings:

- Model:** Temperature (checked), Humidity/Temperature (0-95C) (unchecked), Pressure/Temperature (unchecked), Dual-Sensor Temp (checked).
- Quantity:** 5 (for Temperature) and 1 (for Dual-Sensor Temp).
- Calibration Verification:** Manual (selected) and Auto (available).
- Status:** Both Connected...LTR-150

Navigation buttons at the bottom: Main Menu, Next, and a help icon (?).

ValProbe Reporting Tool

The Kaye reporting software includes an intuitive, yet powerful reporting utility for generating Set Up, Calibration, Qualification, and Calibration Verification reports to document validation study results. Reports are generated from secure data files that can only be read by the system software. Upon study completion, process cycles to be analyzed are defined using the intuitive system graphic feature. The flexible and user-friendly Kaye ValProbe reporting system allows users to add unlimited cycles and up to 25 groups during the reporting phase. You can generate regulatory-accepted reports including Detailed and Summary reports by group and cycle (interval data). Graph reports have been improved, allowing more inputs and access to graph properties.

Report templates are automatically created, allowing the user to reprint an exact copy of the report at a later date, or save to a template for use in subsequent validation studies – a significant time savings for system operators. Users have the ability to combine or merge reports from several Validators or ValProbes, providing the validations were run concurrently.

CONFIGURATION CHOICES

Prior to generating reports the Reporting Tool provides a host of configuration choices:

- Sensors Included in Report
- Sensors Separated by Groups
- Sensor Placement and Description
- Define Cycles (Qualification, Exposure, etc.)
- Calculations (Statistical, Lethality, Saturation, MKT etc.)
- Header/Footers
- Graphing
- Templates
- Pass/Fail Criteria
- Templates
- Pass/fail criteria

These features provide you with maximum flexibility to get the data and calculations you require in the correct formats to meet your Validation reporting needs.

Setup Report					Printed on 25-Mar-2019 at 10:04:55 by Admin		
Study Name:	OQ Test 3	Company:	Amphend	ValProbe Version:	1.70		
Vessel ID:	12019	Date:	22-Mar-2019 10:40:00	SCIP/Protocol #:	VP-1.70-OQ	Report Wizard Version:	1.60
Programmed by:	Test Operator 1	Date:	22-Mar-2019 11:17:36	Comment:	OQ Test 1 (Start-On Temp. Stop-On Temp)		
Read by:	Test Operator 1						
Data Collection							
Start Data Collection	Temperature > 80°C	Sampling Rate	10 seconds	Change to 2nd Sampling Rate	Undefined	2nd Sampling Rate	Stop Data Collection
							Temperature < 70°C
Lethality Calculation							
---Temperature Loggers							
Base Temperature: 121.1 °C							
Accumulate lethality during whole study							
Z Value:	10.00						
D Value:	1.00						
Sensors Included in the Study							
Type	Sensor	SN	Probe ID	FW	Version	Sensor Comments	MFG Cal Date
Temperature	BA75			1.43			18-Oct-2018
	BA79			1.43			26-Nov-2018
	Q200			1.43			23-Apr-2018
	X200			1.43			09-Apr-2018
							Use Verify Date
							Battery Life
							50%
							50%
							50%
							40%
Total Loggers Read In:	Temperature			4		Total Loggers Expected:	Temperature
				4			4

Setup Report

Qualification Summary Report						Printed on 25-Mar-2019 16:23:41 by Test Operator 2	
Study Name:	OQ Test 5	SCIP/Protocol #:	VP-1.70-OQ	Temperature Sensors			
Temperature Data(C)							
(Sensor/Logger SN)	Min	Max	Avg	Cycle	Max-Min	Totals	
CR66 (C)	43.98	121.01	102.42	19.50	78.03	Total	19.50
P528 (C)	47.96	121.75	103.44	19.58	73.79	Alarm	19.58
Temperature Summary Data(C)							
Cycle Start	25-Mar-2019 13:45:00						
Cycle Duration	1:00:00						
Max of Min	43.98	SN	CR66				
Time	25-Mar-2019 14:41:18						
Max of Max	121.75	S/N	P528				
Time	25-Mar-2019 14:17:59						
Max Range	78.17						
Max Spread/Time	22.82	Time	14:42:04				
Min ALeth	19.50	SN	CR66				
Max ALeth	19.58	S/N	P528				
Avg of Avg	102.88						
Max/(Max-Min)	78.03						
	SN	CR66					
				SN	P528		

Qualification Summary Report

Qualification Detailed Report						
Study Name: OQ Test 5						
Temperature						
Temperature Data(C) - Statistical Calculations						
	Min	S/N Min	Max	S/N Max	Max-Min	
25-Mar-2019						
14:41:37	47.91	CB66	67.72	P528	19.81	
14:41:38	47.97	CB66	67.88	P528	19.91	
14:41:39	48.07	CB66	67.99	P528	19.92	
14:41:40	48.21	CB66	68.09	P528	19.88	
14:41:41	48.34	CB66	68.20	P528	19.86	
14:41:42	48.43	CB66	68.34	P528	19.91	
14:41:43	48.58	CB66	68.43	P528	19.85	
14:41:44	48.70	CB66	68.50	P528	19.80	
14:41:45	48.82	CB66	68.57	P528	19.75	
14:41:46	48.93	CB66	68.66	P528	19.73	
14:41:47	48.96	CB66	68.70	P528	19.74	
14:41:48	48.96	CB66	68.78	P528	19.82	
14:41:49	48.93	CB66	68.86	P528	19.93	
14:41:50	49.01	CB66	68.98	P528	19.97	
14:41:51	49.04	CB66	69.16	P528	20.12	
14:41:52	49.07	CB66	69.30	P528	20.23	
14:41:53	49.09	CB66	69.47	P528	20.38	
14:41:54	49.15	CB66	69.61	P528	20.46	
14:41:55	49.19	CB66	69.73	P528	20.54	
14:41:56	49.27	CB66	69.80	P528	20.53	
14:41:57	49.35	CB66	69.92	P528	20.57	
14:41:58	49.34	CB66	69.98	P528	20.64	
14:41:59	49.33	CB66	69.99	P528	20.66	

Qualification Detailed Report

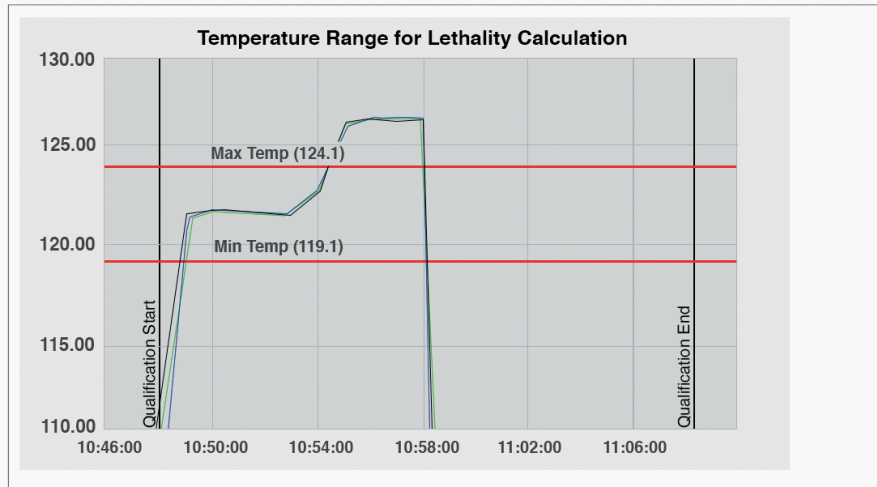
REPORTING

- Setup Report
- Calibration Report
- Verification Report
- Graph Report
- Summary Report
- Detailed Report:
 - Statistical
 - Lethality
 - Saturation
 - MKT
- Audit Trail Report
- Merged Report

Graph Report

Printed on 25-Mar-2019 at 11:27:55 by Test Operator 1

Study Name: OQ Test 4	Company: Amphenol	ValProbe Version: 1.70
Vessel ID: 12121	SOP/Protocol #: VP-1.70-OQ	ReportWizard Version: 1.60
Programmed by: Test Operator 1	Date: 25-Mar-2019	Comments: OQ Test 4 (Lethality Test Based on Temp Range)
Read by: Test Operator 1	Date: 25-Mar-2019	Comments:



Graph Report

Temperature Calibration Verification Report

Printed on 25-Mar-2019 at 10:15:45 by Admin

Temperature Logger DD20		Calibration Verified on 22-Mar-2019 by Test Operator 1	
Company: Amphenol	Firmware Version: 1.43	ValProbe Version: 1.70	
SOP/Protocol #: VP-1.70-OQ	Battery life: 50%	ReportWizard Version: 1.60	
Temperature Standard: Kaye IRTD	KL25/60-H0112 KGER30-Jul-18	ITS-90 (°C)	
Temperature Bath Info: Low Setpoint	High Setpoint		
Stability Criteria:	Logger Stability: 1.00°C for 3 minutes	IRTD Stability:	0.012°C for 2 minutes
Deviation Criteria:	Calibrated: 0.10°C for 3 minutes		

Start: 11:52:50

Setpoint 1: 90.00°C --Passed--

Stability and Deviation Evaluation

Time of Stability: 12:19:10	Logger Temperature: 90.07°C	IRTD Temperature: 90.005°C
	Logger Stability: 0.02°C	IRTD Stability: 0.004°C
	Logger Deviation From IRTD: 0.06°C	

Temperatures Logged for 3 minutes Maximum Deviation 0.06°C

Time	IRTD	Logger	Dev	Time	IRTD	Logger	Dev	Time	IRTD	Logger	Dev
12:19:30	90.006°C	90.07°C	0.06°C	12:20:00	90.006°C	90.07°C	0.06°C	12:20:30	90.007°C	90.07°C	0.06°C
12:21:00	90.008°C	90.07°C	0.06°C	12:21:30	90.009°C	90.07°C	0.06°C	12:22:00	90.010°C	90.07°C	0.06°C
12:22:30	90.010°C	90.06°C	0.05°C								

Setpoint 2: 121.10°C --Passed--

Stability and Deviation Evaluation

Time of Stability: 12:59:00	Logger Temperature: 121.21°C	IRTD Temperature: 121.144°C
	Logger Stability: 0.02°C	IRTD Stability: 0.004°C
	Logger Deviation From IRTD: 0.07°C	

Verification Report

Flexible and Compliant

ELECTRONIC RECORDS, SECURE AUDIT TRAIL, AND ELECTRONIC SIGNATURE

The Kaye ValProbe is specifically designed to enable compliance with FDA 21 CFR Part 11 and to meet data integrity requirements.

All recorded data, including calibration offsets, set-up parameters, and administrative tasks are saved in secure, encrypted, tamper-proof electronic records in a format accessible only through the system software. In addition to passwords now being centrally managed in a network-installed version, users can explicitly set permissions for each user.

With the network capability, audit trails are designed to allow centralized management, searching and printing of department-wide audit trails from any connected PC. The sort and find utilities allow system administrators to perform thorough audits of their ValProbe users; for example, a list of all failed login attempts within a specified time period across all networked computers.

There is notification to the user and logged entries in the audit trail if files are tampered or deleted within Windows Explorer™.

ValProbe_{tm} Audit Trail			
Printed by Test Administrator 1 on 16-Apr-2019 at 10:46:33			
000001	18-Mar-2019 11:54:30	Audit Trail Started	
000002	18-Mar-2019 11:54:30	Path: C:\Program Files (x86)\Kaye\Val Probe\	Machine ID: 016232
000003	18-Mar-2019 11:54:35	Version Changed	
000004	18-Mar-2019 11:54:44	Software Version: 1.70.8 to Software Version: 1.70	
000005	18-Mar-2019 11:54:59	Program Launch	Heiko Hochwald
000006	18-Mar-2019 11:54:59	Successful Login	Kaye Default Administrator
000007	18-Mar-2019 11:55:52	Create User	Steffen
000008	18-Mar-2019 11:56:08	Delete User	Automatic Event
000009	18-Mar-2019 11:56:23	Kaye Default Administrator	Success
000010	18-Mar-2019 11:58:18	Successful Login	Steffen
000011	18-Mar-2019 11:58:22	Successful Login	Steffen
000012	18-Mar-2019 11:58:24	Preferences Modified	Steffen
000013	18-Mar-2019 13:32:34	Standard Reader to Reader 2	
000014	19-Mar-2019 08:50:54	Preferences Modified	Steffen
000015	19-Mar-2019 08:51:28	COM Port0 to COM Port2	
000016	19-Mar-2019 08:51:28	Preferences Modified	Steffen
000017	19-Mar-2019 08:53:24	Millibar to Kilopascal	
000018	19-Mar-2019 08:54:01	Program Launch	Heiko Hochwald
000019	19-Mar-2019 08:54:01	Successful Login	Steffen
000020	19-Mar-2019 08:54:54	Successful Login	Steffen
000021	19-Mar-2019 12:18:15	Site Options Modified	Steffen
000022	19-Mar-2019 12:18:42	Disable user account after 3 consecutive login failures :	Yes
000023	19-Mar-2019 13:39:23	Site Options Modified	Steffen
000024	19-Mar-2019 13:39:34	Minimum password length changed from 1 to 6.	
000025	19-Mar-2019 13:39:34	Create User	Steffen
000026	19-Mar-2019 13:39:34	Test Administrator 1	Success
000027	19-Mar-2019 13:39:34	Create User	Steffen
000028	19-Mar-2019 13:39:34	Test Administrator 2	Success
000029	19-Mar-2019 13:39:34	Create User	Steffen
000030	19-Mar-2019 13:39:34	Test Supervisor	Success
000031	19-Mar-2019 13:39:34	Create User	Steffen
000032	19-Mar-2019 13:39:34	Test Operator 1	Success
000033	19-Mar-2019 13:39:34	Create User	Steffen
000034	19-Mar-2019 13:39:34	Test Operator 2	Success
000035	19-Mar-2019 13:39:34	Create User	Steffen
000036	19-Mar-2019 13:39:34	Test Operator 2	Success
000037	19-Mar-2019 13:39:34	Create User	Steffen
000038	19-Mar-2019 13:39:34	Test Operator 2	Success
000039	19-Mar-2019 13:39:34	Create User	Steffen
000040	19-Mar-2019 13:39:34	Test Operator 2	Success
000041	19-Mar-2019 13:39:34	Create User	Steffen
000042	19-Mar-2019 13:39:34	Test Operator 2	Success
000043	19-Mar-2019 13:39:34	Create User	Steffen
000044	19-Mar-2019 13:39:34	Test Operator 2	Success
000045	19-Mar-2019 13:39:34	Create User	Steffen
000046	19-Mar-2019 13:39:34	Test Operator 2	Success
000047	19-Mar-2019 13:39:34	Create User	Steffen
000048	19-Mar-2019 13:39:34	Test Operator 2	Success
000049	19-Mar-2019 13:39:34	Create User	Steffen
000050	19-Mar-2019 13:39:34	Test Operator 2	Success
000051	19-Mar-2019 13:39:34	Create User	Steffen
000052	19-Mar-2019 13:39:34	Test Operator 2	Success
000053	19-Mar-2019 13:39:34	Create User	Steffen
000054	19-Mar-2019 13:39:34	Test Operator 2	Success
000055	19-Mar-2019 13:39:34	Create User	Steffen
000056	19-Mar-2019 13:39:34	Test Operator 2	Success
000057	19-Mar-2019 13:39:34	Create User	Steffen
000058	19-Mar-2019 13:39:34	Test Operator 2	Success
000059	19-Mar-2019 13:39:34	Create User	Steffen
000060	19-Mar-2019 13:39:34	Test Operator 2	Success
000061	19-Mar-2019 13:39:34	Create User	Steffen
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000096	19-Mar-2019 13:39:34	Test Operator 2	Success
000097	19-Mar-2019 13:39:34	Create User	Steffen
000098	19-Mar-2019 13:39:34	Test Operator 2	Success
000099	19-Mar-2019 13:39:34	Create User	Steffen
000100	19-Mar-2019 13:39:34	Test Operator 2	Success

Audit Trail Report

Password Maintenance

Add New User

Name:

User ID:

Password:

Reenter Password:

Operator
 Disable User Account

Supervisor
 Print Audit Trail

System Administrator

User Management

Three levels of authorization protect access to the system — assigning users, making changes to tests, or running tests.

System Documentation

IQ/OQ PROTOCOL

The Installation Qualification/Operational Qualification Protocol defines a set of procedures to ensure that the Kaye ValProbe system is properly installed and operated according to Kaye's recommendations, and is adequately documented and controlled according to cGMP requirements. The documents are provided in hard copy and in digital format, allowing users to modify the documentation to suit specific organizational requirements.

The IQ/OQ Protocol includes the following:

- Installation Qualification document
- Operational Qualification document
- Operational Qualification document – Report
- Standard Operating Procedures document

If you prefer to have IQ/OQ executed by qualified Kaye technicians, we also provide Validation IQ/OQ in-house or on-site execution.

VALIDATION REFERENCE

The Kaye ValProbe system is supported with documentation that verifies a fully validated system, including software, hardware and firmware. The Validation Reference Binder provides a comprehensive overview of the Amphenol Quality Policy, description of ISO 9001 implementation and support procedures, and standards for the development, testing, and maintenance of hardware and software.

Quality Control documents, Development procedures, Quality Assurance procedures, Release documents, and Quality Assurance test documentation are all included. The Validation Reference is a serialized document, ensuring that registered users automatically receive notification and updates to keep documentation current. The result is a summary of information you would obtain by conducting an audit at an Amphenol's facility – complete, well organized, neatly packaged, and immediately accessible.



ValProbe On-Site Verification

HIGH ACCURACY REFERENCING

Kaye's temperature calibration equipment is designed specifically to maximize overall system accuracy. Calibration equipment includes temperature references with superior uniformity, traceable intelligent RTD standards, and validation software to communicate with the hardware.

FAST/ACCURATE REFERENCING

System performance data is only as good as the accuracy of the baseline measurement and inaccurate measurements have no place in pharmaceutical and biotech processing.

Kaye baths, dry wells, and IRTD temp standards offer unparalleled accuracy over a wide temperature range and reliability to meet your validation and verification needs.

INTELLIGENT RTD STANDARD

The IRTD Temperature Standard (IRTD-400) is a NIST/DAkkS-traceable instrument that is calibrated over the range of -196°C to 420°C. It is accurate to $\pm 0.025^\circ\text{C}$ over the entire operating range. Communicating directly with the console software, the IRTD-400 eliminates the potential for human error, assuring accurate and traceable measurements.



KAYE CTR-25

- Temp Range: -25°C to 140°C
(closed cover)
- Verification of up to 10 rigid loggers



KAYE LTR-150

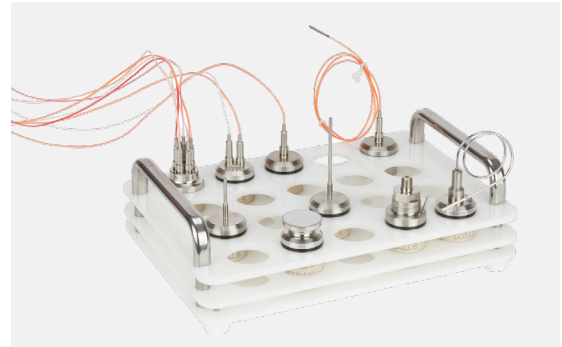
- Temp Range: -30°C to 150°C
- Liquid micro bath tub with sensor cage and magnetic stirrer can hold ValProbe RT rigid loggers



Accessories

KAYE TRANSPORT AND STORAGE

The ValProbe transport / storage tray is an accessory designed to simplify the carrying, storage, and management of Kaye ValProbe loggers during use. The ValProbe transport/storage tray can accommodate up to 20 Kaye ValProbe loggers of any type.



KAYE INSULATING CANISTER

Use the Insulating Canister in combination with any Kaye bendable temperature logger as a perfect solution for high-temp, dry heat applications.

Performance

Temp.	Exposure Time
360°C	45 min.
300°C	60 min.
250°C	80 min.
200°C	115 min.
170°C	165 min.



KAYE SHIPPING CASE

Protect your validation equipment and store it safely when not being used.



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Request a demo:

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Plot no. 6, Survey No.64

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AAS-BRK-05001



Warranty and disclaimer: The information mentioned on documents are based on our current tests, knowledge and experience. Because of the effect of possible influences in an application of the product, they do not exempt the user from their own tests, checks and trials. A guarantee of certain properties or a guarantee for the proper suitability of the product for a specific, especially permanent application can not be derived from our data. Liability is therefore excluded to that extent permitted by law. Any proprietary rights of third parties as well as existing laws and regulations must be observed by the recipient of the product on his own responsibility.

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