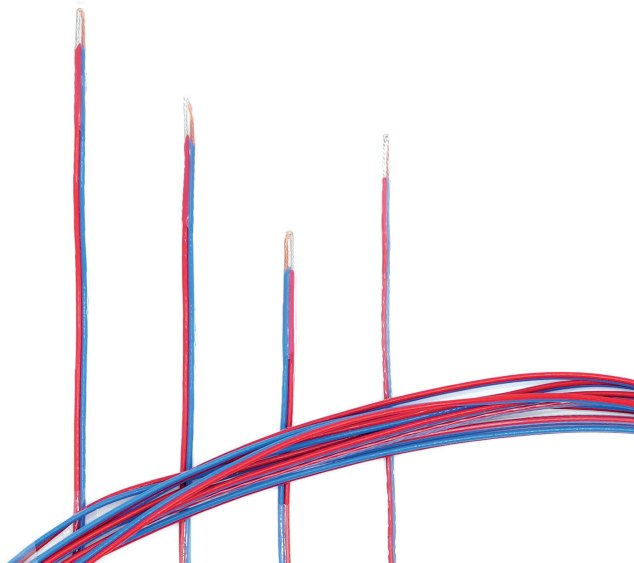


# Validator<sup>®</sup> Accessories

KAYE PRODUCTION LINE



# Kaye – First in Validation & Environmental Monitoring

KAYE OFFERS A COMPLETE LINE OF VALIDATION ACCESSORIES TO COMPLEMENT OUR VALIDATION SYSTEMS. FROM SENSORS SUCH AS THERMOCOUPLE AND PRESSURE TRANSDUCERS TO CALIBRATION EQUIPMENT AND FEEDTHRU, THESE ACCESSORIES ARE DESIGNED TO PROVIDE THE BEST ACCURACY, PERFORMANCE, AND RELIABILITY AS WELL AS SIMPLIFY THE VALIDATION PROCESS.

TRUST THE LEADER IN VALIDATION SYSTEMS FOR MORE THAN 60 YEARS TO MEET ALL YOUR VALIDATION NEEDS.



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# Thermocouples Overview

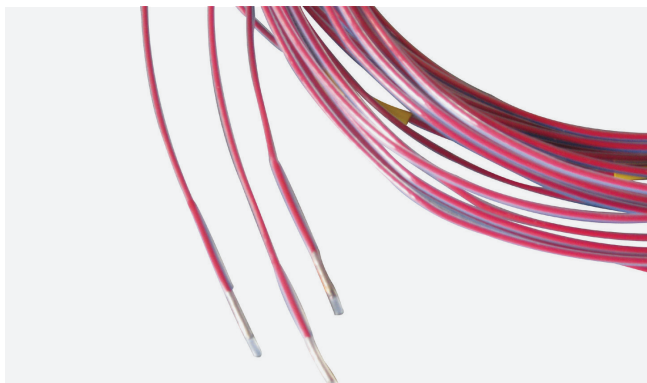
The accuracy of the complete validation system is critical to validating any process. Good Calibration Practices state that the accuracy of the standard or validation system should be at least 4 times more accurate than the criteria defined to evaluate the process. The accuracy, repeatability and quality of the thermocouples sensor is a key component of the measurement process.

Kaye's Ultra-Premium Type T (Copper / Constantan) thermocouple wire and probes have been designed and manufactured to provide the highest purity and uniformity in the industry, while providing the robustness to survive harsh conditions and physical abuses normally encountered in validation. Type T wire and probes provide the highest level of accuracy when used from -200°C to 400°C. The Teflon coated wire is rated for continuous use at 200°C with a peak rating

of 260°C, while our Kapton coated insulated wire will withstand use up to 400°C.

The accuracy and uniformity of thermocouple wire is dependent on the quality and purity of the metals they are made from. Using a process we developed over 30 years ago, Kaye inspects the purity of each ingot of copper and constantan prior to being extruded to ensure it meets Kaye's stringent purity specifications. Kaye's Ultra Premium grade wire and probes carry an accuracy of 0.25% at 121°C, 4 times better than standard commercial grade wire of 1°C.

The purity and uniformity provide unmatched accuracy and most importantly provides a broad gap between measurement accuracy and your criteria, therefore greatly minimizing any risks of failed calibrations or verifications due to the sensor.



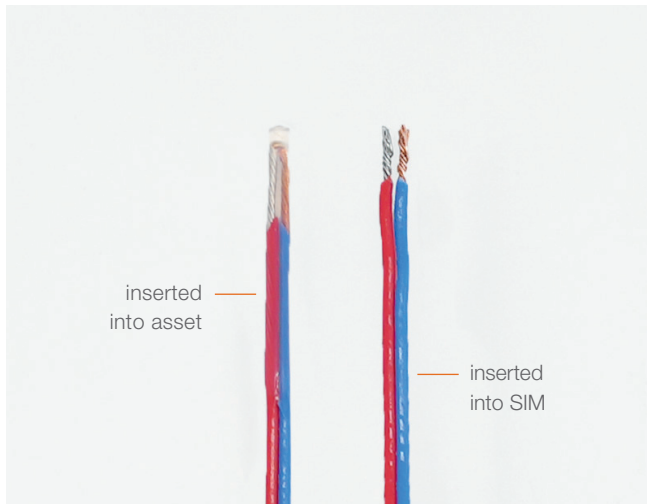
## KAYE THERMOCOUPLE WIRE SPECIFICATION

Wire Grade	Ultra – Premium		
	3-Strand	7-Strand	7-Strand Kapton®
<b>Model</b>	K0258	K0255	K0250
<b>Gauge</b>	27 AWG	22 AWG	22 AWG
<b>Accuracy</b>			
@ 121°C	±0.3°C	±0.25°C	
@ 300°C			±1.2°C
<b>Maximum variation within group for all wire:</b>			
@ 40°C	±0.05°C maximum; ±0.03°C typical		
@ 121°C	±0.1°C maximum; ±0.05°C typical		
@ 300°C	±0.3°C maximum; ±0.15°C typical		
<b>Size Oval</b>	3-strand 0.042" (1.1mm) minor   0.074" (1.9mm) major		
	7-strand 0.095" (2.4mm) minor   0.120" (3.0mm) major		

### MULTI-STRANDED CONSTRUCTION

Thermocouple wire and probes are typically subjected to significant handling and stress due to the nature of their use during validation. They are dropped, wound up, tied, stepped on, rolled over, and bent. Repeated bending or cold working of a thermocouple wire can generate stress and distortion of the material's crystalline structure resulting in potential measurement errors.

Kaye thermocouple wire is a multi-strand construction utilizing 7 strands of 30-gauge wire twisted together to provide maximum pliability, strength and therefore durability to minimize the risk of any cold working. If the wire is stressed from cold working, then the purity and uniformity of the wire will significantly minimize or eliminate any potential measurement errors.



### THERMOCOUPLE PROBE TIPS

Kaye thermocouple probes are provided with an argon welded bead at the tip to provide a strong robust junction. The tips are then encapsulated with a dual heat shrinkable sealed Teflon tip to protect the tip from damage as well as minimize any moisture from being pulled thru the probe during sterilization thus prolonging the life of the probe.

### SENSOR RISK ASSESSMENT

The success of validation studies is primarily based on the accurate measurement and verification of critical process parameters such as temperature. One of the major contributing factors to the accuracy of the data is the proper selection and use of the sensor themselves.

While quality thermocouple wire may cost more than conventional wire the added costs is negligible when one considers the investment in people, validation equipment and time during validation.

The costs of one failed qualifications or calibration verifications in time, productivity and downtime will more than compensate for the investment in high quality thermocouple wire.

Don't take unnecessary risk, trust Kaye Ultra Premium Grade Thermocouple wire and probes to provide the accuracy and robustness to assure the success of your validation efforts.

# Ultra-Premium Autobond Type T Thermocouple Probes

## DESIGNED SPECIFICALLY FOR AUTOCLAVES TO ELIMINATE LEAKAGE

The Autobond wire and probes were designed specifically for autoclave and SIP applications, to eliminate wicking of water or steam in the thermocouple probe. The wire and probes are manufactured using our Ultra-Premium grade wire providing an accuracy of 0.25°C @ 121°C.

The Teflon coated wire is rated for continuous use from -196°C to 200°C. Each probe includes an argon welded tip with dual shrink tubing to protect the tip from damage and moisture. Each probe is leak tested and verified for accuracy at 121°C.

The Autobond probes design eliminates the clear outer Teflon jacket which is where 90% of the moisture creep occurs. The inner Teflon coating is more of a mold which fills in the inner air pockets created by the stranded wire, thus blocking any moisture creep.

## BENEFITS:

- No more need for drip cuts or dealing with puddles of water
- Extended probe life due to reduced moisture and oxidation of wires
- Eliminates the risk of getting moisture in your validator and rusting out SIMs or damaging electronics
- Reduced diameter (no outer sleeve) easier to deal with and more TCs in baths

Compatible with existing SIMs, Feedthrus and bath inserts

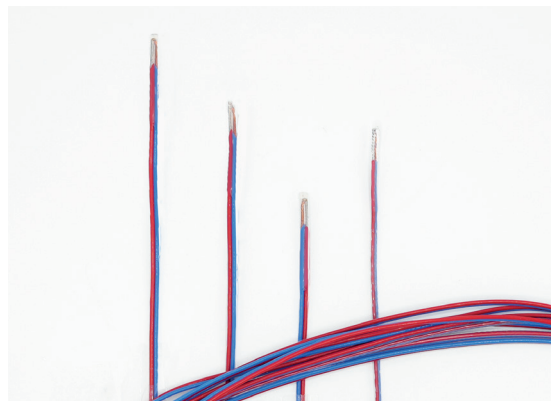
The Ultra-Premium Autobond wire carries the same accuracy and uniformity specifications as our standard Kaye Ultra-Premium wire and comes in 2 diameters; standard 22 AWG 7-strand wire and 26 AWG smaller 7-strand wire.

## TYPICAL APPLICATIONS

- Autoclaves
- SIP
- All applications from -196°C to 200°C

## TECHNICAL SPECIFICATIONS

- Thermocouple tips with 1.8mm or 3mm diameter
- Temperature range from -196°C to 200°C
- Accuracy of 0.25°C @ 121°C
- Ideal for wet applications
- Continuous use up to 200°C with a short peak of 250°C
- Available as 3 or 7-strand wire
- Available also with labels
- Standard length of 6-8-10-12 m (EMEA)
- Standard length of 20-25-30-35-40-50 feet (US)



# Ordering Information

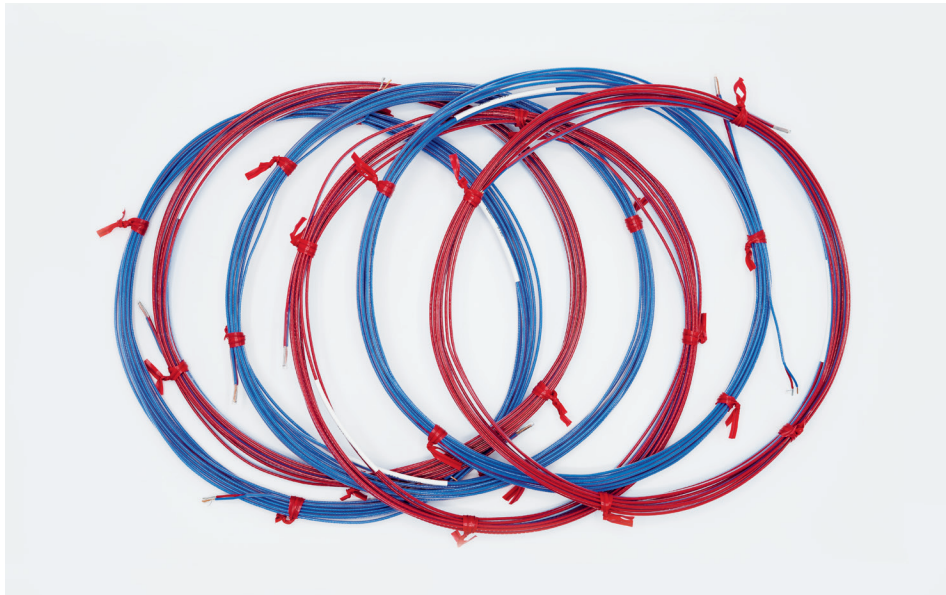
## Autobond TCs

### LARGER DIAMETER THERMOCOUPLES

Part Number	Description
AL-7ST1WN-20	AUTOBOND Teflon Probe 7-strand 1" Tip 20 ft 22AWG (6 meter)
AL-7ST1WN-25	AUTOBOND Teflon Probe 7-strand 1" Tip 25 ft 22AWG
AL-7ST1WN-27	AUTOBOND Teflon Probe 7-strand 1" Tip 27 ft 22AWG (8 meter)
AL-7ST1WN-30	AUTOBOND Teflon Probe 7-strand 1" Tip 30 ft 22AWG
AL-7ST1WN-33	AUTOBOND Teflon Probe 7-strand 1" Tip 33 ft 22AWG (10 meter)
AL-7ST1WN-40	AUTOBOND Teflon Probe 7-strand 1" Tip 40 ft 22AWG (12 meter)
AL-7ST1WN-50	AUTOBOND Teflon Probe 7-strand 1" Tip 50 ft 22AWG

### SMALLER DIAMETER THERMOCOUPLES

AS-7ST1WN-20	AUTOBOND Teflon Probe 7-strand 1" Tip 20 ft 26AWG (6 meter)
AS-7ST1WN-25	AUTOBOND Teflon Probe 7-strand 1" Tip 25 ft 26AWG
AS-7ST1WN-27	AUTOBOND Teflon Probe 7-strand 1" Tip 27 ft 26AWG (8 meter)
AS-7ST1WN-30	AUTOBOND Teflon Probe 7-strand 1" Tip 30 ft 26AWG
AS-7ST1WN-33	AUTOBOND Teflon Probe 7-strand 1" Tip 33 ft 26AWG (10 meter)
AS-7ST1WN-40	AUTOBOND Teflon Probe 7-strand 1" Tip 40 ft 26AWG (12 meter)
AS-7ST1WN-50	AUTOBOND Teflon Probe 7-strand 1" Tip 50 ft 26AWG



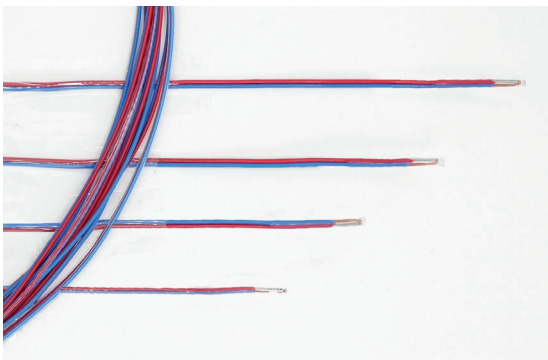
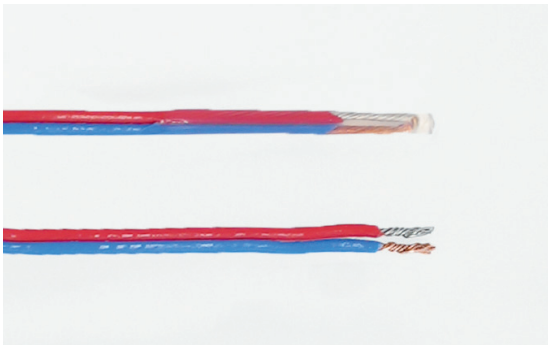
# Ultra-Premium Type T Teflon® Insulated Thermocouples

For over 40 years Kaye's Ultra-Premium Type T Teflon thermocouple probes have been the standard for critical validation applications. The wire and probes are manufactured using our Ultra-Premium grade wire providing an accuracy of 0.25°C @ 121°C.

The Teflon coated wire is rated for continuous use from -196°C to 200°C. Each probe includes an argon welded tip with dual shrink tubing to protect the tip from damage and moisture. Each probe is individually leak tested and verified for accuracy at 121°C.

The probes contain an inner Teflon sleeve surrounding each wire as well as a clear outer Teflon coating providing maximum strength and protection.

The probes are available in our standard 7 strand configuration or as 3 strand for application where space is at a minimum.



## TYPICAL APPLICATIONS

- All applications from -196°C to 200°C

## TECHNICAL DETAILS

- Thermocouple tips with 1.8 mm or 3 mm diameter
- Temperature range from -196°C to 200°C
- Accuracy of 0.25°C @121°C
- Ideal for wet applications
- Continuous use up to 200°C with a short time peak of 250°C
- Available as 3- or 7-strand wire
- Available also with Labels
- Standard length of 6-8-10-12 m (EMEA)
- Standard length of 30-35-40-45-50 feet (US)

## STANDARD PART NUMBERS

### USA/ASIA

<b>7ST 1WN-20</b>	Teflon Probe, 7-stranded, 1" Tip, 20 feet
<b>7ST 1WN-25</b>	Teflon Probe, 7-stranded, 1" Tip, 25 feet
<b>7ST 1WN-30</b>	Teflon Probe, 7-stranded, 1" Tip, 30 feet
<b>7ST 1WN-40</b>	Teflon Probe, 7-stranded, 1" Tip, 40 feet
<b>3ST 1WN-20</b>	Teflon Probe, 3-stranded, 1" Tip, 20 feet
<b>3ST 1WN-30</b>	Teflon Probe, 3-stranded, 1" Tip, 30 feet
<b>3ST 1WN-35</b>	Teflon Probe, 3-stranded, 1" Tip, 35 feet
<b>3ST 1WN-40</b>	Teflon Probe, 3-stranded, 1" Tip, 40 feet

### EUROPE

<b>7ST1W-20N</b>	Teflon Probe, 7-stranded, 1" Tip, 6 m
<b>7ST1W-27N</b>	Teflon Probe, 7-stranded, 1" Tip, 8 m
<b>7ST1W-33N</b>	Teflon Probe, 7-stranded, 1" Tip, 10 m
<b>7ST1W-40N</b>	Teflon Probe, 7-stranded, 1" Tip, 12 m
<b>3ST1W-20N</b>	Teflon Probe, 3-stranded, 1" Tip, 6 m
<b>3ST1W-27N</b>	Teflon Probe, 3-stranded, 1" Tip, 8 m
<b>3ST1W-33N</b>	Teflon Probe, 3-stranded, 1" Tip, 10 m
<b>3ST1W-40N</b>	Teflon Probe, 3-stranded, 1" Tip, 12 m



# Ultra-Premium Type T Kapton® Thermocouples

The Kapton probes were specifically designed for extreme temperature in dry applications such as depyrogenation tunnels and high temperature ovens. The wire and probes are manufactured using our Ultra-Premium grade wire providing an accuracy of 1.2°C @ 300°C.

The Kapton insulated probes are rated for use up to 360°C. The life expectancy of the Kapton insulation is rated for 3 months continuous use at 260°C and 6 days continuous use at 360°C. Each probe includes an argon welded tip encapsulated in a 3 mm stainless tip.

The probes contain an inner Teflon sleeve surrounding each wire which is then wrapped with a Kapton outer jacket. The Kapton probes cannot be used in moist applications and are really designed specifically for high temperature dry applications. The probes are available in our standard 7 strand configuration.



## TYPICAL APPLICATIONS

- Dry heat tunnels
- Ovens

## TECHNICAL DETAILS

- Stainless Steel tips – 3 mm diameter and Kapton® wire
- Accuracy of 1.2°C @ 300°C
- Max. Temperature 350°C for 6 days
- Continuous use up to 260°C for 3 months
- No wet applications
- Available only as 7-stranded wire
- Available also with metal labels
- Standard length of 6-8-10-12 m (EMEA)
- Standard length of 20-25-30-35-40 feet (US)

## STANDARD PART NUMBERS

### USA/ASIA

<b>KW-20</b>	Kapton Probe, 7 stranded, 20 feet
<b>KW-25</b>	Kapton Probe, 7 stranded, 25 feet
<b>KW-30</b>	Kapton Probe, 7 stranded, 30 feet
<b>KW-40</b>	Kapton Probe, 7 stranded, 40 feet
<b>KW-60</b>	Kapton Probe, 7 stranded, 60 feet

### EUROPE

<b>KW-20</b>	Kapton Probe, 7 stranded, 6 m
<b>KW-27</b>	Kapton Probe, 7 stranded, 8 m
<b>KW-33</b>	Kapton Probe, 7 stranded, 10 m
<b>KW-40</b>	Kapton Probe, 7 stranded, 12 m
<b>KW-47</b>	Kapton Probe, 7 stranded, 14 m

# Thermocouples: Stainless Steel

## TYPE T – STAINLESS STEEL MINERAL INSULATED THERMOCOUPLE

Type T Thermocouple – Class A with temperature range of -200°C to 400°C with a 1 mm diameter for the stainless steel and a Teflon connection cable which allows maximum 100°C. The connection point of this thermocouple cannot be in the autoclave – only the stainless steel part of the thermocouple is allowed in the autoclave.



## TYPICAL APPLICATIONS:

- Freeze dryer, freezers, liquid nitrogen tanks
- Incubators, autoclaves, raining autoclaves

## TECHNICAL DETAILS

- Thermocouples with 1 mm diameter
- Temperature range from -200°C to 400°C
- Type T – Class 1 Quality
- Accuracy of  $\pm 0.5$  between -40°C and 125°C
- $\pm 0.004 \times T$  between 125°C and 350°C

## STANDARD PART NUMBERS

### KG-1SST-6-2-8M

Stainless Steel mineral insulated Thermocouple Type T

6m sensor/2m cable/8 m total length

1mm diameter/-200°C to 400°C/Class 1

### KG-1SST-6-6-12M

Stainless Steel mineral insulated Thermocouple Type T

6m sensor/6m cable/12 m total length

1mm diameter/-200°C to 400°C/Class 1



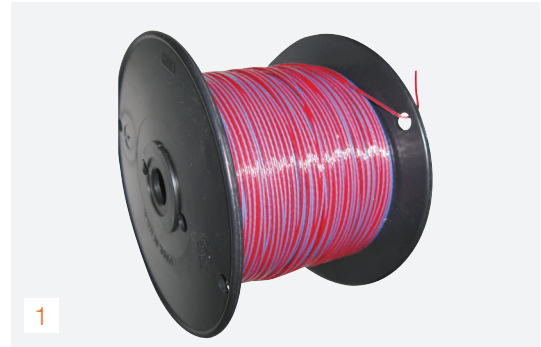
# Thermocouples Accessories

## THERMOCOUPLE WIRE SPOOLS

Kaye offers 1000 ft and 2000 ft spools of our Teflon, Autobond, and Kapton wire for those who wish to make probes themselves. The part numbers below show the available gauge and strand configurations. Each spool includes a Certificate of Conformance – your guarantee that it meets our accuracy specifications.

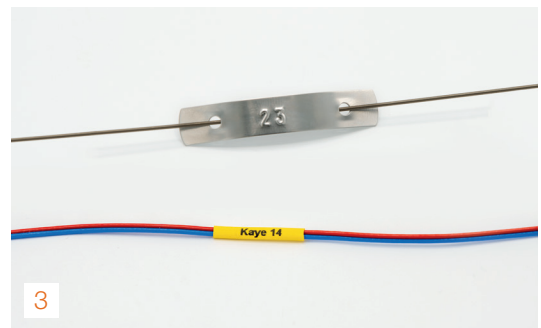
### Global Part Numbers

K0255-1	7-Stranded Premium Thermocouple Wire 1000 Spool
K0255-2	7-Stranded Premium Thermocouple Wire 2000 Spool
K0258-1	3 Stranded Premium Thermocouple Wire 1000 Spool
K0258-2	3 Stranded Premium Thermocouple Wire 2000 Spool
K0259-1	AUTOBOND 22 AWG Ultra Premium 7-strand wire in 1000 ft spool
K0259-2	AUTOBOND 22 AWG Ultra Premium 7-strand wire in 2000 ft spool
K0263-1	AUTOBOND 26 AWG Ultra Premium 7-strand wire in 1000 ft spool
K0263-2	AUTOBOND 26 AWG Ultra Premium 7-strand wire in 2000 ft spool
K0250-1000	Kapton Copper Wire Spool
K0250-2000	Kapton Copper Wire Spool



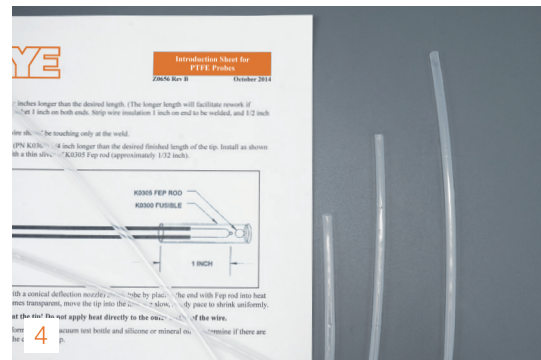
## THERMOCOUPLE LABELS

These labels make it easy to identify each thermocouple and document the qualification of chambers easily. You just add them on the Teflon® Thermocouple and use a heat gun to shrink them onto the thermocouple cable. Set of 48 TCs – 2 numbers each.



## THERMOCOUPLE TIP KITS

Extend the life of yourself welded thermocouples by encapsulating the tip in a sealed PTFE sleeve. The kit is available for 3 and 7-stranded Type T Teflon Thermocouple wire. Each kit provides material to make between 45 and 60 sensor tips.



- 1 Autobond thermocouple spool
- 2 48 pack of thermocouple labels
- 3 TC label on teflon thermocouple / kapton thermocouple
- 4 TC Tip Kit for 7-strand Type T wire

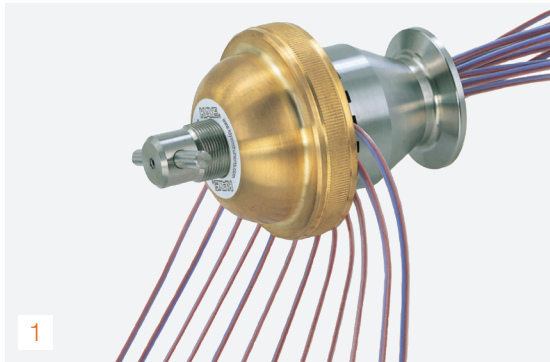
# Feedthru

## FEEDTHRU FOR AUTOCLAVE APPLICATIONS

Easy way to seal the autoclave port when introducing thermocouples into the chamber.

Standard 1.5" TRI-CLAMP® process connection.

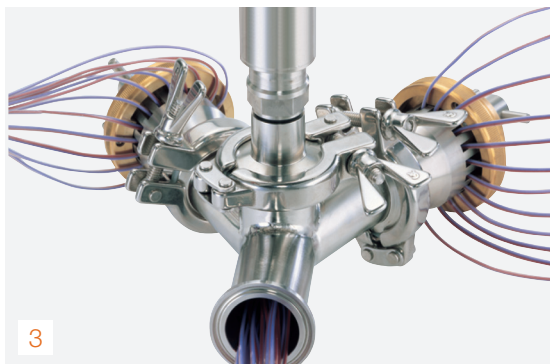
Installation is simple without the need of any tools, fitted with safety release mechanism.



1



2



3

- 1 Kaye thermocouple Feedthru
- 2 Feedthru Kit in case
- 3 2 Feedthrus, Y-piece, pressure sensor

## STAINLESS STEEL THERMOCOUPLE FEEDTHRU FEATURES:

- Allows up to 18 thermocouples to be introduced into the validated chamber
- Standard 1.5" TRI-CLAMP® process connection
- Fitted with safety release mechanism
- TÜV approved for up to 5 bar steam pressure
- Delivered with special gasket for great seal
- Improved design for use with autoclave
- Temperature up to 140°C

### Part Number

USA/Asia	K0440
Europe	KG-150

## FEEDTHRU-KIT FOR TCS AND PRESSURE SENSOR

This Feedthru Kit is an ideal set if you have to qualify an autoclave which has for example only one 1.5" TRI-CLAMP® validation port but you need to use more than 18 thermocouples or you want to connect a pressure sensor as well to the autoclave. Simple installation is all you need to perform the work.

### Feedthru kit contains the following parts:

- One 1 ½" Kaye Feedthru including gasket seals
- Stainless Steel Y-piece with 4 x 1.5" TRI-CLAMP® process connection
- TÜV approved for up to 5 bar pressure
- Delivered with 4 x TRI-CLAMPs®
- Delivered with 4 high temperature gaskets for autoclave
- Include as well 2 stainless steel lids for 1.5" TRI-CLAMP®
- Kit is delivered in a transport case

### Part Number

USA/Asia	V2845
Europe	KG-144

# Y-Piece for Autoclave Applications / Smart Clamps and Gaskets

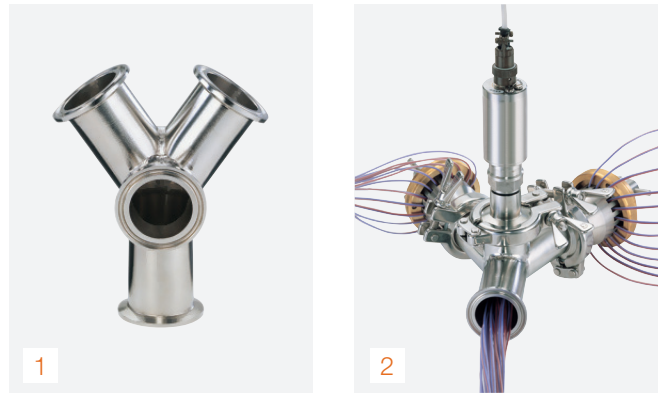
Ideal part if you have to qualify an autoclave which has only one 1.5" TRI-CLAMP® validation port but you need to use more than 1 feedthru or you want to connect a pressure transducer as well to the autoclave.

## STAINLESS STEEL ADAPTER Y-PIECE:

- Allows connecting 2 Feedthrus and a pressure transducer
- 4 x Standard 1.5" TRI-CLAMP® process connection
- Pressure tested up to 8 bar
- Leakage tested helium-vacuum-leak-detector (< 10<sup>-7</sup> mbar/s)

### Part Number

USA/Asia	K0442
Europe	KG-148



- 1 Feedthru Y-piece
- 2 2 Feedthrus, Y-piece, pressure sensor
- 3 Smart clamps and gaskets



## SMART CLAMPS AND SMART GASKETS:

### Smart Clamps

Part Number	K0448-1.5-2
	Tri-Clamp with Dual Port for 1 & 1 ½" sanitary fitting (50.5mm)

### Smart Gaskets

Part Number	M1989-1.5-1
	Gasket Silicone with Single Port for 1 ½" sanitary fitting (50.5mm)

Part Number	M1989-1.5-2
	Gasket Silicone with Dual Port for 1 ½" sanitary fitting (50.5mm)

# Pressure Transducer for Autoclaves

Comply with current standards to measure pressure in parallel to temperature when qualifying autoclaves. The pressure sensor is optimized to work with autoclaves and the Validator AVS or Validator 2000 – no power supply required.

## KAYE AUTOCLAVE PRESSURE TRANSDUCER

- Media temperature -20°C to 140°C
- Accuracy of 10 mbar @ 121°C
- Pressure range 0 to 4 bar absolute
- Including cable to connect directly to Kaye Validator®
- Delivered in a protective carry case
- No power supply required
- Pressure value can be handled directly by the Validator®
- 1.5 inch TRI-CLAMP® Connector to install directly to the autoclave port
- Improved design for use with autoclave (temperature-compensated)
- New units delivered with certificate @ 23°C and 121°C

### Part Number

Global	KG-075
--------	--------

- 1 Pressure transducer and Feedthru on Y-piece
- 2 Pressure transducer including cable
- 3 Pressure transducer carry case



# Validation Console

## A NEW FLEXIBLE APPROACH TO VALIDATION

The Kaye Validation Console is a state-of-the-art portable and rugged console, dedicated to programming, displaying, reporting, and storing Validation data. The Console is pre-loaded and configured with the suite of Kaye and legacy software. It is customized to specific validations tasks. The console offers direct docking and Wi-Fi connectivity with Kaye equipment. The Kaye validation console brings about a new approach to tackling your software validation.



## VALIDATION CONSOLE SPECIFICATIONS

### Operating System / Processor / Memory

- Microsoft Windows 10 Enterprise LTSC (64 bit)
- 8th Generation Intel® Core™-i5 Processor
- 8 GB RAM

### Durability IP65 Rated

- Military grade durability with improved thermal management
- Maximum protection against dust, dirt, and water ingress
- Drop-tested from 4 feet
- Temperature-tested from -20°F to 145°F (-29°C to 62°C)

### Display

- 11.6-inch, FHD 1920 x 1080
- 1000 Nit outdoor-readable
- Anti-glare, anti-smudge, polarizer
- Glove-capable touchscreen

### System Storage

- 256GB M.2 Solid State Drive (SSD)

### Integrated Communications

- Intel® Wireless-AC 9560
- 802.11ac with Bluetooth 5.0

### Separate Docking Station Available I/O Ports

- Docking connector
- 1 - USB 3.1 Type-A with power delivery
- 1 - USB 3.0 Type-C port with DisplayPort Alt Mode/PowerShare
- 1 - Combo mic/headphone jack
- 256GB M.2 Solid State Drive (SSD)

### Embedded I/O

- On-board camera capability of taking pictures with console
- 5 MP RGB + IR FHD webcam with privacy shutter/8 MP rear camera with flash and dual microphone

### Dimensions / Weight<sup>(1)</sup>

- 7.99in x 12.29in x .96in (256mm x 256mm x 24.3mm)
- 2.93 lbs (1.33 kg)(1)

### Battery

- Battery life up to 6 hours<sup>(2)</sup>

### Backwards Compatibility

- Can run with Kaye Validator and Kaye ValProbe software

1. Weight represents approximate system weight measured with a 34Whr battery. Actual system weight may vary depending on component and manufacturing variability.

2. Battery life varies by configuration, applications in use, utilized features, and operating conditions. Maximum battery capacity decreases with time and use.



### KAYE REMOTE DOCKING SYSTEM

The Validation Console Remote Docking Station is ideal for utilizing the console remotely for charging the console or for working on the console independently from the AVS.

The docking station includes 3 USB ports and 1 ethernet port for connection to external keyboards and mouse or for downloading data to external devices. The ethernet port can be used for Sync Out or Sync In of data to your network.

---

**Part Number** V2260

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### SENSOR INPUT MODULES (SIM)

- SIMs for TCs, 4-20mA, 0-10V and RTDs
- Improved Sensor Connectivity (quick-fix & lock connectors)
- Accepts a wide range of thermocouple types (T, J, K, E, B, R, N, S)

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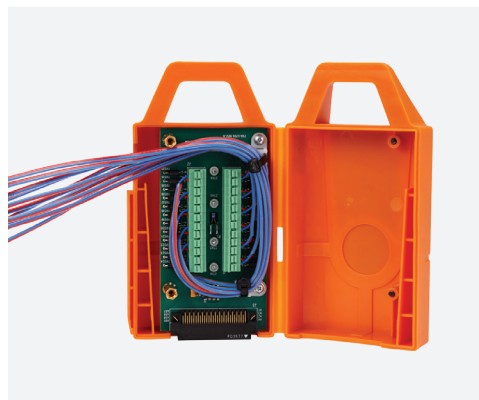
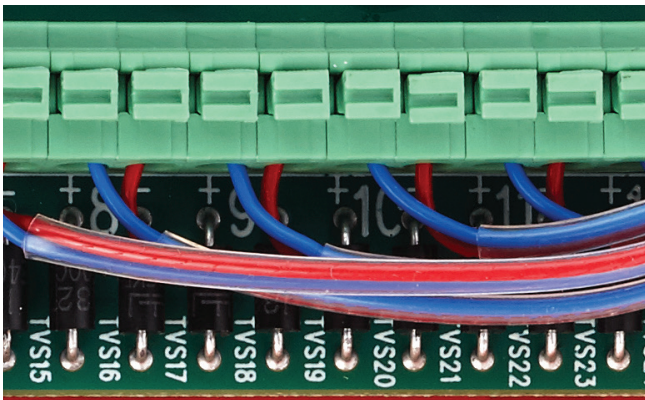
**Part Number**

TC-SIM X2600

4-20mA-SIM X2601

RTD-SIM X2602

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# Validator® AVS Shipping Case

PROTECT YOUR VALIDATOR® AND STORE IT SAFELY WHEN NOT BEING USED

## SHIPPING CASE – WHY SHOULD YOU OWN IT

- Robust, secure and practical, shock protection during transport
- Can be used as a trolley for easy transportation
- Provides safety during shipments and internal transportation
- Safe shipment and transport for annual service
- Specific storage inserts for all accessories/ documentation
- Protects against moisture, dust and pollution – waterproof
- Given the best storage when system not in use
- Can be locked to prevent theft and unauthorized usage



## CABLES FOR VALIDATOR® AVS

238-1014

AVS to IRTD Connection Cable  
6 feet (1.5m)



238-1015

AVS to bath cable  
6 feet (1.5m)



## CABLES FOR KAYE PRESSURE TRANSDUCER

KG-075-G

Cable for autoclave pressure transducer – about 5m long connects the Validator SIM with the pressure transducer and powers them



## CABLES FOR VALIDATOR 2000

W1885-G

Oven Cable – about 6 feet (1.5m) long connects the Validator 2000 with Kaye LTR / HTR/CTR baths



M2810-G

IRTD Cable - about 6 feet (1.5m) long connects the Validator 2000 with the IRTD-400



H0665

USB to Serial Adapter Cable



W1890-1

RS232 Cable – about 6 feet (1.5m) long connects the Validator 2000 with PC/Laptop



# On-Site Training

If you are using Kaye equipment and would like training at your facility, we can schedule a visit to suit you.

Our technical instructors can assist you with all your training needs in the format, location and pace that works best for you and your team. Training courses are held at a number of convenient regional training centers. Our courses range from introductory level to in-depth product classes with practical hands-on exercises. All courseware is coordinated with the most recent product updates and features. On request, we offer product specific on-site training courses to meet your particular needs.



# IQ/OQ Protocol

The Installation Qualification/Operational Qualification Protocol defines a set of procedures to ensure that the Kaye validator system is properly installed and operated according to Kaye recommendations, and is adequately documented and controlled according to cGMP requirements.

The documents are provided in hard copy and digitally, allowing users to modify the documentation to suit specific organizational requirements.

## THE IQ/OQ PROTOCOL INCLUDES THE FOLLOWING:

- Installation Qualification document
- Operational Qualification document
- Standard Operating Procedures document
- Set-up programs

### Set-up Programs Global Part Numbers

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Validator AVS X6055

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Validator 2000 X6005

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Visit our website:  
[www.kayeinstruments.com](http://www.kayeinstruments.com)

Kaye representative contact:  
[www.kayeinstruments.com/en/contact](http://www.kayeinstruments.com/en/contact)

Request a demo:  
[www.kayeinstruments.com/en/demo](http://www.kayeinstruments.com/en/demo)

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