

STRam® Raman spectrometer for analyses through non-transparent packaging

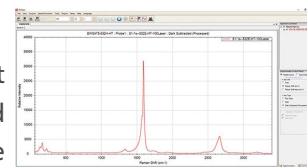
BWT-840000676

Below, the accessories are grouped into Scope of delivery and Optional accessories. Please keep this printout at hand for ordering replacement material. These lists may be subject to change.

Scope of delivery BWT-840000676

| Qt. | Order no. | Description |
|-------|---------------|-----------------|
| 1 PCS | BWT-810000044 | BWSpec Software |

BWSpec® is B&W Tek's general spectroscopy software for instrument control and data acquisition, including real-time peak analysis and trending. BWSpec is the operating software included with the purchase of all B&W Tek portable Raman systems and spectrometer products. It is designed with features for broad range applications, performing complex measurements and calculations at the click of a button. It supports multiple data formats and provides the option to optimize measurement parameters, such as integration time and laser output power control. In addition to data acquisition and data processing, it also offers automatic dark removal, spectral smoothing, baseline correction, as well as peak monitoring and trending.



1 PCS

BWT-810000721 Carrying Case for i-Raman Pro/Prime Series

Carrying Case for i-Raman Pro and Prime series. Includes a soft, black carrying case with wheels and custom-cut foam for packing and safely carrying the i-Raman Pro, i-Raman Prime, STRam, or QTRam.

CCRM



1 PCS

BWT-840000101 Laser safety goggles (785 nm)

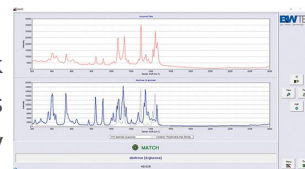
Laser safety goggles for 785 nm lasers – suitable only for Class IIIB laser systems from B&W Tek.



1 PCS

BWT-840000127 BWID Pharma Raman ID Software

Data acquisition and material identification software for B&W Tek portable Raman spectrometers to rapidly identify or verify materials based on user-built libraries, proprietary B&W Tek and third-party libraries. Meets all the requirements of FDA 21 CFR Part 11, including system access security, audit trail of data activities, and system performance tests. One user license provided. Free upgrades included within one year of purchase date.



1 PCS

BWT-840000910 STRam Probe

Lab-grade Raman fiber-optic probe module for analyses through packaging, with hand trigger, 105 μm diameter, 0.22 NA fiber for 785 nm excitation, 300 μm diameter, 0.22 NA for Raman pickup, optical density >6 ; up to 150 cm^{-1} . 1.5 m fiber cable with FC/PC connector on the spectrometer end and FC/PC connector on the laser end. Adhesive sealed quartz window. Not for immersive use. Accessories included: Focus adapter, surface regulator, calibration cap.



1 PCS

BWT-840000935 Polystyrene Reference for STRam

STRam probe polystyrene reference.

BAC10x-ST-PCC



1 PCS

BWT-840001119 Focus adaptor

STRam 785 nm focus adaptor.

RST-FA-785



1 PCS

BWT-840001120 Light shield accessory for STRam

Light shield accessory for STRam.

RST-LS



1 PCS

BWT-840001122 Surface regulator for ST probe

Surface regulator for ST probe.

RST-SR



Optional accessories

| Order no. | Description |
|-----------|-------------|
|-----------|-------------|

BWT-810000468 Connection cleaner

Cleaner for SMA905 and FC/PC connections.



BWT-810000469 Cleaner for ferrule end surfaces

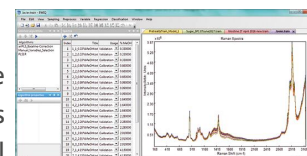
FC/PC and FC/APC receptacle cleaner recommended for i-Raman Pro /Prime, STRam, QTRam. Do not use on SMA.

FRC



BWT-810000589 BWIQ: Multivariate Analysis Software

BWIQ[®] is a comprehensive software package for multivariate analysis of spectral data, including explorative, qualitative analyses and quantitative regression methods. BWIQ supports the classical chemometric methods of classification and regression, including among them Partial-Least-Squares-Regression (PLS), principal component analysis (PCA) and discriminant analysis with Support-Vector-Machine-Algorithms (SVM) for non-linear data sets. It features an intuitive workflow from data import to evaluation, with extensive graphics to support model analysis and interpretation. BWIQ includes preprocessing tools for optimal analysis of Raman, NIR, LIBS and other spectroscopic data sets. The BWIQ chemometrics model is used with QTRam[®]. It is the ideal chemometrics package for online use with the instruments of the i-Raman[®] series for real-time evaluation and analysis of high-resolution spectroscopy data.



BWT-810000682 External rechargeable battery pack for portable Raman instruments

External Lithium-Ion battery that provides constant 12 VDC. (Compatible with the i-Raman-Plus, i-Raman Pro and i-Raman EX models).

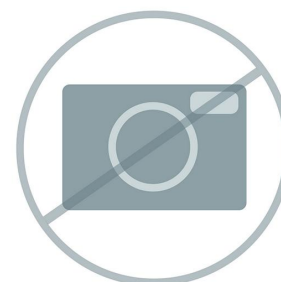
EBP106



BWT-810000719 Power cord for EU power for use with portable Raman systems

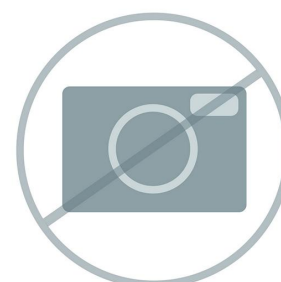
Power cord for EU power for use with portable Raman systems.

BWPC-EU



BWT-810000879 Software Development Kit for Instrument Control

Software Development Kit for Windows operating systems supports all USB spectrometers and Cleanlaze lasers made by B&W Tek. Includes product manual, DLL drivers and sample code for LabView®, Visual C++, C++ Builder, C#, Visual Basic, VBA and VB.NET.



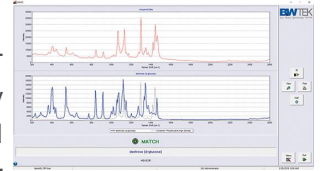
BWT-840000117 Raman Flow Cell (BAC160-SS)

Raman flow-through cell made of stainless steel, for inline Raman measurements of liquid samples by interfacing with standard laboratory probe (9.5 mm diameter; probe is not included in scope of delivery).



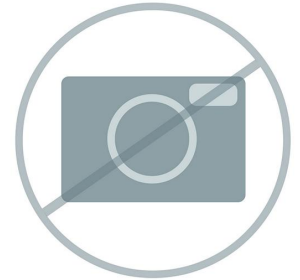
BWT-840000126 BWID Standard Raman ID Software

Data acquisition, material identification and reporting software for B&W Tek portable Raman spectrometers to rapidly identify or verify materials based on user-built libraries, proprietary B&W Tek and third-party libraries. Includes system performance tests. One user license provided. Free upgrades included within one year of purchase date.



BWT-840000130 Immersion shaft for portable Raman instruments

Optional immersion shaft for BAC100/BAC102 Raman probes with an excitation wavelength of 532 nm or 785 nm. Equipped with a 76.2 mm long body made of 316L stainless steel with an outer diameter of 12.0 mm and a silica window that is sealed with an O-ring made of perfluoro rubber. Operating distance 5.0 mm in air. Can be used at -55 °C to 200 °C. The seal is liquid-tight at low pressure (< 1 bar).



BWT-840000136 Raman replacement shaft (785 nm)

Replacement shaft for BAC100/102-785 Raman probe assembly made of stainless steel. Replaceable shaft with adhesive sealed fused silica window. Operating distance 5.5 mm. Shaft diameter 9.5 mm, shaft length 76.2 mm.



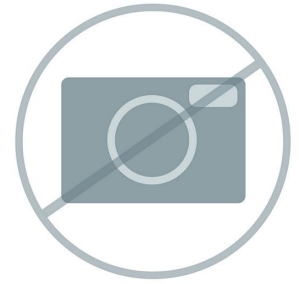
BWT-840000140 Raman Flow Cell (BAC160-Ti)

Raman flow-through cell made of titanium, for inline Raman measurements of liquid samples by interfacing with standard laboratory probe (9.5 mm diameter; probe is not included in scope of delivery).



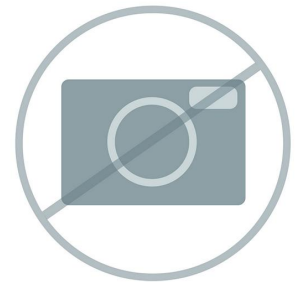
BWT-840000164 Complete Raman Library (portables)

Raman Spectral Library: Complete Collection (without minerals and precious stones) for use with BWID software; 15,930 spectra.



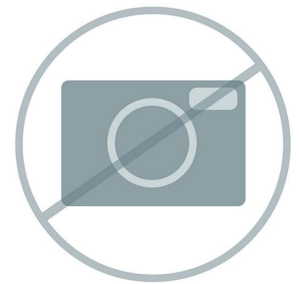
BWT-840000165 Raman Polymers Library

Raman Spectral Library of Polymers and Polymer Additives (portables) for use with BWID software; 3,412 spectra.



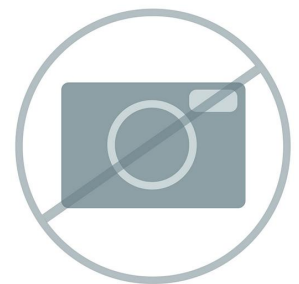
BWT-840000166 Raman Spectral Library for the Food Industry

Raman Spectral Library of Food Additives and Packaging (portables) for use with BWID software; 2,451 spectra.



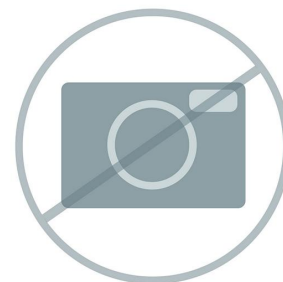
BWT-840000167 Raman Solvents Library

Raman Spectral Library of Solvents (portables) for use with BWID software; 1,003 spectra.



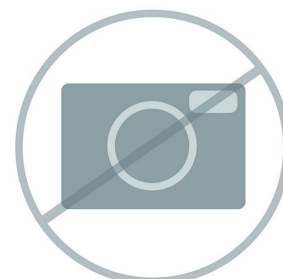
BWT-840000168 Raman Biochemicals Library

Raman Spectral Library of Biochemicals (portables) for use with BWID software; 4,359 spectra.



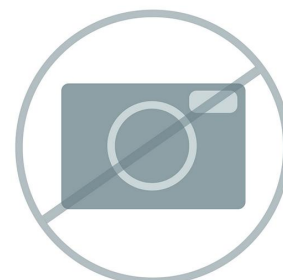
BWT-840000169 Raman Aldehydes and Ketones Library

Raman Aldehydes and Ketones Library (portables) for use with BWID software; 2,106 spectra.



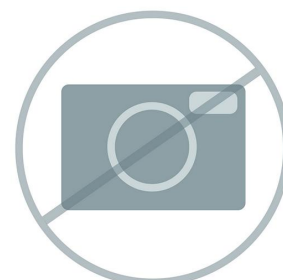
BWT-840000170 Raman Alcohols and Phenols Library

Raman Alcohols and Phenols Spectral Library (portable instruments) for use in the BWID software; 1,661 Spectra.



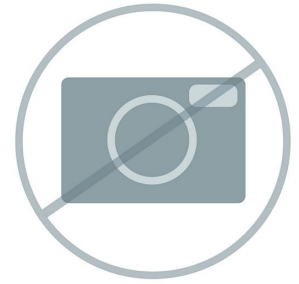
BWT-840000171 Raman Esters, Lactones, and Anhydrides Spectral Library

Raman Esters, Lactones, and Anhydrides Spectral Library (portable instruments) for use in the BWID software; 3,776 Spectra.



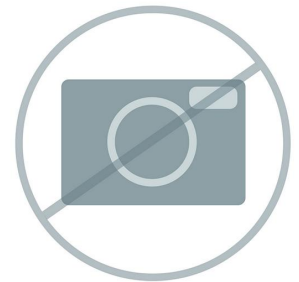
BWT-840000172 Raman Hydrocarbons Spectral Library

Raman Hydrocarbons Spectral Library (portable instruments) for use in the BWID software; 576 Spectra.



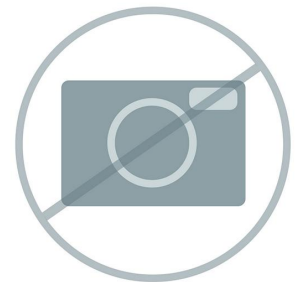
BWT-840000173 Raman Flavors, Fragrances and Cosmetic Ingredients Spectral Library

Raman Flavors, Fragrances and Cosmetic Ingredients Spectral Library (portable instruments) for use in the BWID software; 2,336 Spectra.



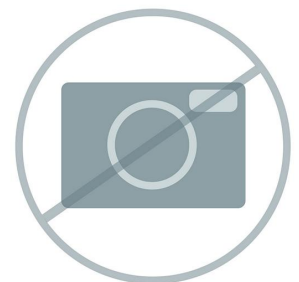
BWT-840000174 Raman Pesticides Spectral Library

Raman Pesticides Spectral Library (portable instruments): for use in the BWID software; 1,685 Spectra.



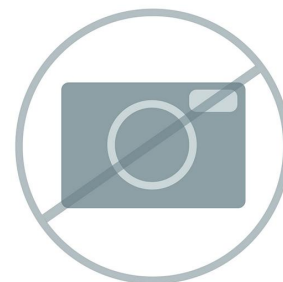
BWT-840000175 Raman Semiconductor Chemicals Spectral Library

Raman Semiconductor Chemicals Spectral Library (portable instruments): for use in the BWID software; 921 Spectra.



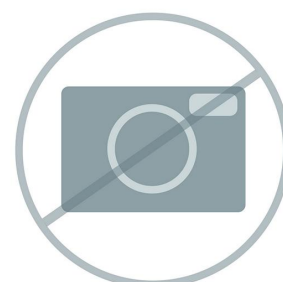
BWT-840000177 Raman Dyes, Pigments and Stains Spectral Library

Raman Dyes, Pigments and Stains Spectral Library (portable instruments) for use in the BWID software; 1,364 Spectra.



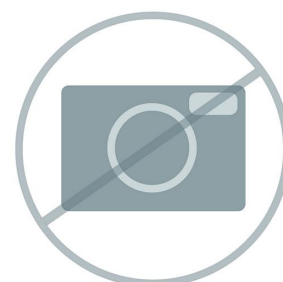
BWT-840000178 Raman Sulfur and Phosphorous Chemicals Library

Raman Sulfur and Phosphorous Chemicals Spectral Library (portable instruments) for use in the BWID software; 2,116 Spectra.



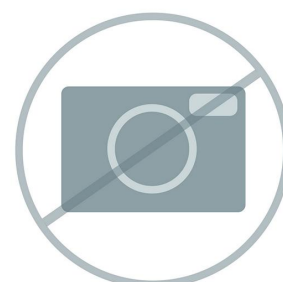
BWT-840000179 Raman Hazardous Chemicals Spectral Library

Raman Hazardous Chemicals Spectral Library (portable instruments) for use in the BWID software; 4,043 Spectra.



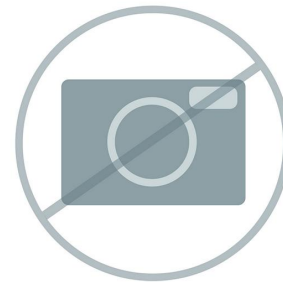
BWT-840000180 Raman Toxic Chemicals Spectral Library

Raman Toxic Chemicals Spectral Library (portable instruments) for use in the BWID software; 1,932 Spectra.



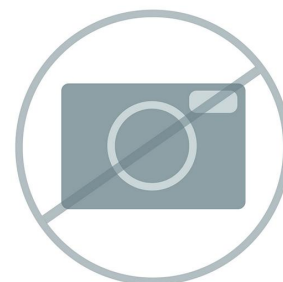
BWT-840000181 Raman Pharmaceuticals, Drugs and Antibiotics Library

Raman Pharmaceuticals, Drugs and Antibiotics Spectral Library (portable instruments) for use in the BWID software; 2,902 Spectra.



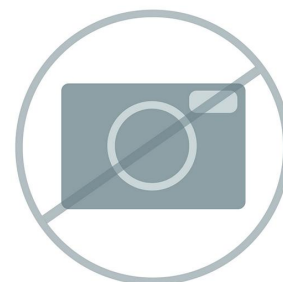
BWT-840000182 Raman High-Production Volume Chemical Spectral Library

Raman High Production Volume (HPV) Chemicals Spectral Library (portable instruments) for use in the BWID software; 1,293 Spectra.



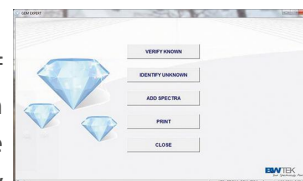
BWT-840000183 Raman Excipients Spectral Library

Raman Excipients (all from 60020) Spectral Library (portable instruments): for use in the BWID software; 826 Spectra.



BWT-840000280 GemID Software

Data acquisition and identification software for the analysis of gemstones and minerals with B&W Tek portable Raman spectrometers. Includes Raman Spectral Library and images of more than 450 gemstones from Gem Expert and Japan Germany Gemmological Laboratory. One user license provided. Free upgrades included within one year of purchase date.



BWT-840000289 Portable Raman Instrument Validation Cap

Validation Cap with integrated ASTM-standard polystyrene for use with the BAC100/BAC102 lab-grade Raman Probe with shaft diameter of 9.5 mm.



BWT-840000295 Vials for liquids, 15 mm in diameter

Borosilicate glass vials (diameter 15 mm), package of 6, with pouch.



BWT-840000296 Stylus/pen

Stylus/pen combo for touch screens.

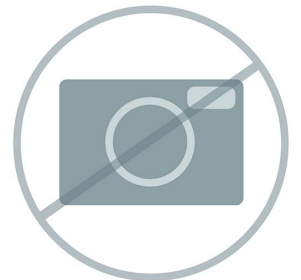
NR-STY



BWT-840000322 Video Microscope Objective, 10x

Microscope objective, infinity-corrected, 10x, working distance (mm) = 16, focal length (mm) = 20, numerical aperture (NA) = 0.3.

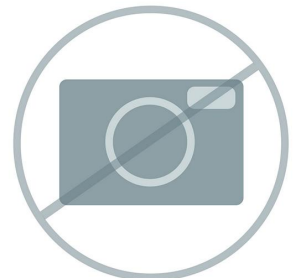
RML110A



BWT-840000323 Video Microscope Objective, 20x (RML120A)

Microscope objective, infinity-corrected, 20x, working distance (mm) = 12, focal length (mm) = 10, numerical aperture (NA) = 0.4.

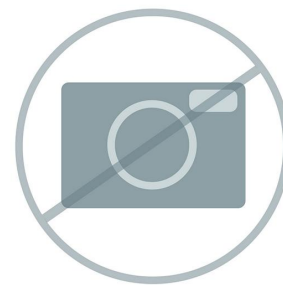
RML120A



BWT-840000325 Video Microscope Objective, 50x (RML150A)

Microscope objective, infinity-corrected, 50x, working distance (mm) = 9.15, focal length (mm) = 4, numerical aperture (NA) = 0.55.

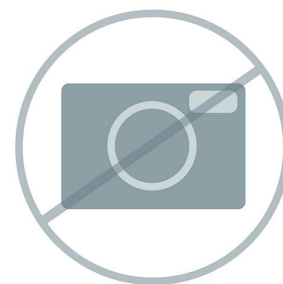
RML150A



BWT-840000328 Video Microscope Objective, 100x

Microscope objective, infinity-corrected, 100x, working distance (mm) = 3.2, numerical aperture (NA) = 0.8, Focal length (mm) = 2.

RML1100A



BWT-840000361 Handheld Laser Power Meter

Laser Power Meter, Pen Type, Calibrated. Range: 5 micro-Watts to 1 Watt. Used in OQ/PQ and annual certification laser power measurement.



BWT-840000395 Raman Probe Holder

Probe holder for use with B&W Tek's lab-grade Raman probes. Provides manual coarse and fine XYZ adjustments.



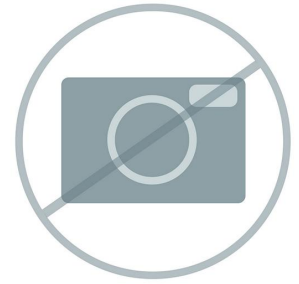
BWT-840000463 BAC151x probe adapter

BAC151x Probe Adaptor to connect B&W Tek Lab grade Raman probes to BAC151x Video microscope sampling system. Remove the standard shaft and distance regulator, to use the adaptor and connect the probe head to the video microscope. 3 adaptors per pack.



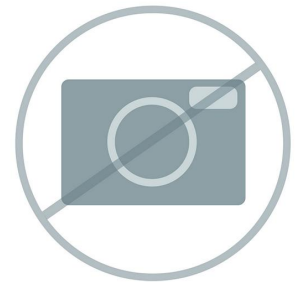
BWT-840000531 Raman Organometallics & Silicon Spectral Library

Raman Organometallics & Silicon Spectral Library (portable instruments) for use in the BWID software; 981 Spectra.



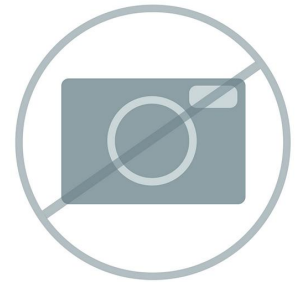
BWT-840000532 Raman White Powders Spectral Library

Raman White Powders Spectral Library (portable instruments) for use in the BWID software; 305 Spectra.



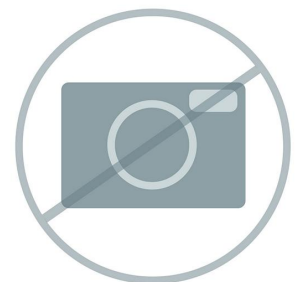
BWT-840000533 Raman Coatings Spectral Library

Raman Coatings Spectral Library (portable instruments): for use in the BWID software; 652 Spectra.



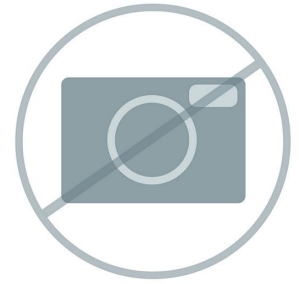
BWT-840000534 Raman Paints Spectral Library

Raman Paints Spectral Library (portable instruments): for use in the BWID software; 1077 Spectra.



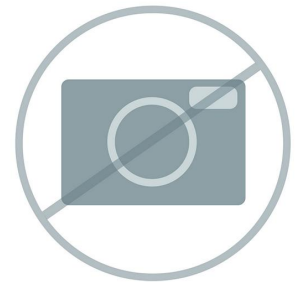
BWT-840000535 Raman Environmental Pollutants Spectral Library

Raman Environmental Pollutants Spectral Library (portable instruments): for use in the BWID software; 361 Spectra.



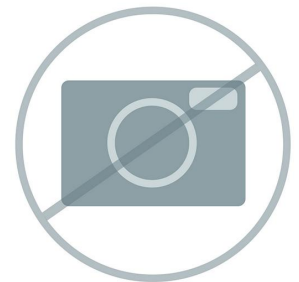
BWT-840000536 Raman Essential Oils Spectral Library

Raman Essential Oils Spectral Library (portable instruments) for use in the BWID software; 401 Spectra.



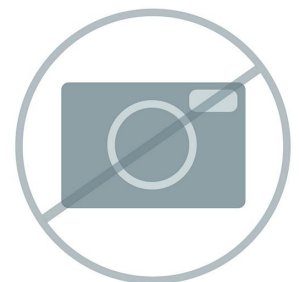
BWT-840000537 Raman Spectral Library of Minerals

Raman Minerals Spectral Library (portable instruments): for use in the BWID software; 459 Spectra.



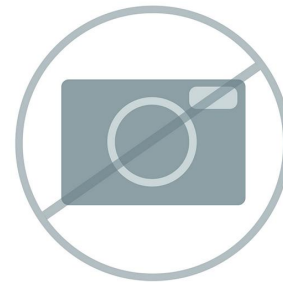
BWT-840000538 Raman Inorganic Spectral Library

Raman Inorganic Spectral Library (portable instruments): for use in the BWID software; 1,432 Spectra.



BWT-840000591 Raman Chemicals Spectral Library

Raman Chemicals Spectral Library for portable Raman instruments, with around 1,150 spectra of common chemicals, narcotics, explosives, solvents and plastics. Supported in BWID Version 2.02 and higher.



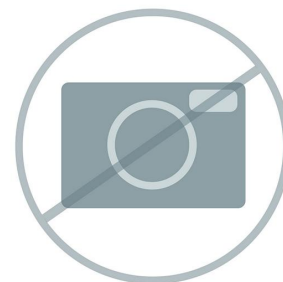
BWT-840000609 Enclosure for Raman sampling system

Enclosure for Raman sampling system (i.e. microscope, probe holder) used to eliminate direct ocular and/or skin exposure from the laser emission. The enclosure is ergonomically designed to facilitate sample loading and system operation. For use with 532, 785 and 1064 nm wavelengths.



BWT-840000843 Raman Gemstone Spectral Library

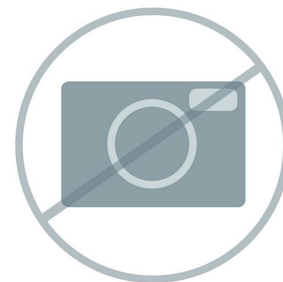
Raman Gemstone Spectral Library for BWID and portable Raman instruments with > 450 spectra from Gem Expert and from Japan Germany Gemmological Laboratory. Library supported in BWID Version 2.02 or higher.



BWT-840000847 Raman Explosives Spectral Library

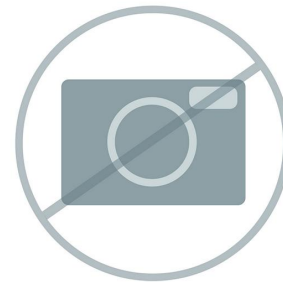
Raman Explosives Spectral Library for portable Raman instruments including more than 180 spectra. Supported in BWID Version 2.02 and higher.

Note: This item may be subject to Export control to some territories.



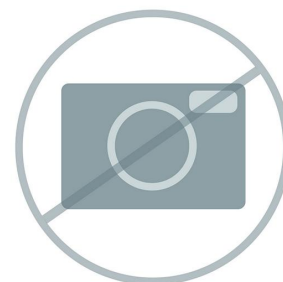
BWT-840000848 Raman Chemicals and Narcotics Spectral Library

Raman Chemicals Spectral Library for portable Raman instruments, with more than 1,100 spectra of common and toxic chemicals, narcotics, solvents and plastics. Supported in BWID Version 2.02 and higher.



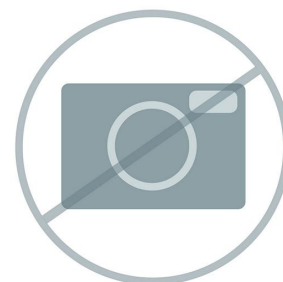
BWT-840000849 All-Inclusive Raman Library Bundle

All-Inclusive Raman Library Bundle for portable Raman instruments (includes all Raman Spectra); 16,989 Spectra for use in the BWID software.



BWT-840000850 Raman Petrochemicals Spectral Library

Raman Petrochemicals Spectral Library for use in the BWID software; 749 Spectra.



BWT-840000905 High-Throughput Industrial Raman Probe (785 nm)

High-throughput industrial Raman immersion probe with 316 stainless steel shaft (0.5" outer diameter x 8" length) and epoxied sapphire objective. Excitation at 785 nm. Raman cut-off at 150 cm^{-1} . Laser fiber 105 μm core FC/PC connector. Raman fiber 300 μm core FC/PC connector. fiber cable, length 1.5 m.



BWT-840000961 Raman Video Micro-Sampling System (785 nm)

Video microscope sampling system for use with B&W Tek's lab and industrial Raman probes. Includes a 20x objective at a working distance of 16 mm. Offers manual rough and fine adjustment on the X, Y, and Z-axes, coaxial LED illuminator for target alignment, video camera for sample observation, and is compatible with standard microscope objectives. Probe not included, available separately. 785 nm configuration.



BAC151C-785

BWT-840000963 Raman Video Micro-Sampling System (532/785 nm dual)

Video microscope sampling system for use with B&W Tek's lab and industrial Raman probes. Includes a 20x objective at a working distance of 16 mm. Offers manual rough and fine adjustment on the X, Y and Z-axes, coaxial LED illuminator for target alignment, video camera for sample observation, and is compatible with standard microscope objectives. Probe not included, available separately. Dual 532/785 nm configuration.



BAC151C-532/785

BWT-840000964 Raman Video Micro-Sampling Head (785 nm)

Video microscope sampling system head for use with B&W Tek's lab and industrial Raman probes. With coaxial LED illuminator for target alignment and video camera for sample observation. Compatible with standard microscope objectives. Probe not included, available separately. Objective lens not included, available separately. 785 nm configuration.



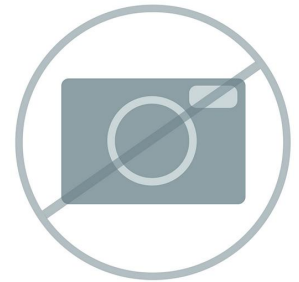
BWT-840000966 Raman Video Micro-Sampling Head (532/785 nm dual)

Video microscope sampling system head for use with B&W Tek's lab and industrial Raman probes. With coaxial LED illuminator for target alignment and video camera for sample observation. Compatible with standard microscope objectives. Probe not included, available separately. Objective lens not included, available separately. Dual 532/785 nm configuration.



BWT-840001123 Bluetooth 1D barcode scanner

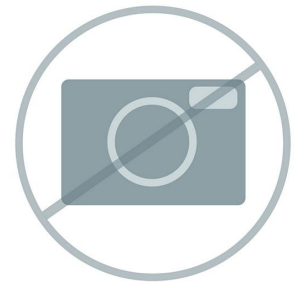
Bluetooth 1D barcode scanner for use with BWID software operating a portable Raman instrument



BWT-840001202 Hastelloy immersion shaft for 785nm Raman probe

RIS100-HS-785-08: Hastelloy immersion shaft for BAC102/BAC100B Raman probes with excitation wavelength 785nm. Features a 0.5" (12.7 mm) O.D. x 8" (203.2 mm) L Hastelloy C-276 shaft and a gold-sealed sapphire ball lens. Working distance 0.4 mm in air, 0.6 mm in water. Shaft operating temperature is up to 250 degrees C, pressure up to 6000psi. Shaft must be purchased with B&W Tek Raman probe.

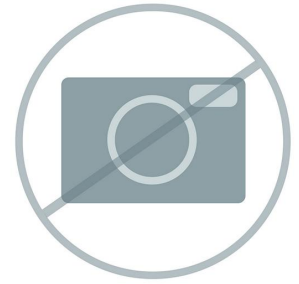
RIS100-HS-785-08



BWT-840001203 Stainless steel immersion shaft for 785 nm Raman probe

RIS100-SS-785-08: Stainless steel immersion shaft for BAC102 /BAC100B Raman probes with excitation wavelength 785nm. Features a 0.5" (12.7 mm) O.D. x 8" (203.2 mm) L stainless steel shaft with an epoxied sapphire ball lens. Working distance 0.5 mm in air, 0.8 mm in water. Shaft operating temperature is up to 200 degrees C, pressure up to 6000psi. Shaft must be purchased with B&W Tek Raman probe.

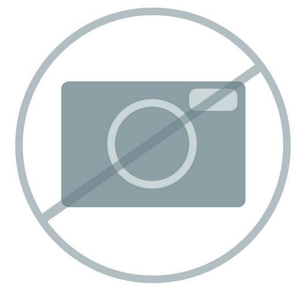
RIS100-SS-785-08



BWT-840001212 High throughput lab-grade fiber optic Raman probe

BAC100B-785-HT: High Throughput lab-grade fiberoptic Raman probe assembly; 105µm diameter 0.22NA fiber for 785 nm excitation 300µm diameter 0.22NA for Raman pickup, optical density >6; down to 150 cm⁻¹. 304SS shaft has 0.371" (9.5 mm) diameter and 3" (76.2 mm) L. The 1.5 m fiber is terminated in FC/PC on the spectrometer end and FC/PC on the laser end. Adhesive-sealed quartz window for non-contact sampling. 5.5 mm working distance. Max. operating temperature is 80 degrees C. Not for immersive use. This probe is compatible with the i-Raman Prime, PTRam, and STRam Family.

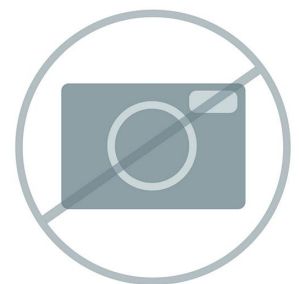
BAC100B-785-HT



BWT-840001214 Hot melt extrusion shaft Raman probes with excitation from 500 to 785 nm - gold-sealed ball lens

Hot melt extrusion shaft for BAC102/BAC100B Raman probes with excitation wavelength between 500 nm and 785 nm. 0.5" (12.7 mm) diameter and 8" (203.2 mm) long SS316L shaft and a gold-sealed sapphire ball lens, couples into standard Dynisco 1/2-20 UNF port. Sample temperature up to 350 degrees C, pressure up to 6000psi. Shaft must be purchased with B&W Tek Raman probe.

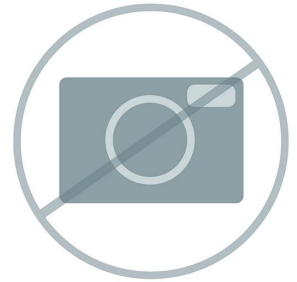
RHS100-SSG-08



BWT-840001215 Hot melt extrusion shaft for Raman probes with excitation from 500 to 785 nm - epoxy-sealed ball lens

Hot melt extrusion shaft for BAC102/BAC100B Raman probes with excitation wavelength between 500 nm and 785 nm. 0.5" (12.7 mm) diameter and 8" (203.2 mm) long SS316L shaft and an epoxy-sealed sapphire ball lens, couples into standard Dynisco 1/2-20 UNF port. Sample temperature up to 180 degrees C, pressure up to 6000psi. Shaft must be purchased with B&W Tek Raman probe.

RHS100-SSE-08

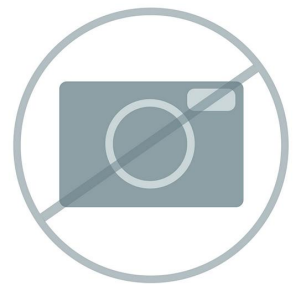


BWT-840001240

Polystyrene validation cap for ball lens probe shaftsIMPS-PCC

Polystyrene validation cap for system performance testing for ball lens probe shafts. Compatible with Raman fiber optic probes with a 0.5" O.D. shaft and a ball lens.

IMPS-PCC



BWT-840001242 High Throughput Lab-grade Raman probe (785 nm, 5 m fiber length)

High-throughput lab-grade fiberoptic Raman probe assembly with 5 m fiber length. This probe assembly is comprised of 105um diameter 0.22NA fiber for 785 nm excitation 300um diameter 0.22 NA for Raman pickup, optical density >6; down to 150 cm-1; and 5.0 m fiber length with FC/PC termination on both the spectrometer end and the laser end. The probe shaft is not for immersive use, with an adhesive sealed quartz window for non-contact sampling and 5.5 mm working distance. The probe shaft is replaceable, and options for use in different conditions are available. This probe is compatible with the i-Raman Prime 785 and PTRam family.

BAC100B-785-HT-5M

