



# NanoRam-1064 Handheld Raman Spectrometer

BWT-840000953

The NanoRam-1064 is a high-performance handheld Raman Spectrometer for nondestructive identification and verification of incoming raw materials, such as APIs, excipients, and intermediates, regardless of their color. Compact and agile, the NanoRam-1064 can be used by non-technical users to rapidly identify samples in the warehouse, on the loading ramp, in the field or in the laboratory, minimizing quarantine areas and expediting materials through the manufacturing lifecycle. Utilizing Raman technology, the NanoRam-1064 minimizes fluorescence and can identify a large range of samples by distinguishing between different grades of cellulose, polysorbate and Opadry®. Rapid incoming material testing with the NanoRam-1064 can be performed through transparent containers, all the while maintaining sample volume and integrity. The unit also offers full onboard library and method validation, making a compliant workflow for methods and library development.

The NanoRam is fully compliant with the US FDA 21 CFR Part 11 and Part 1040.10, and can play an integral role in cGMP-compliant facilities. The NanoRam-1064 meets the requirements of Raman spectroscopy methods including the US Pharmacopeia <858>, European Pharmacopeia 2.2.48, Japanese Pharmacopeia 2.26, as well as the People's Republic of China Pharmacopeia Directives on Raman Spectroscopy. Raman is a recognized method for complying with the PIC/S




& GMP directives regarding 100% identity assurance for starting materials. A complete range of training courses and support services is available, including IQ/OQ/PQ/DQ implementation services, as well as method and/or new library development support.

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-840000953

Qt.	Order no.	Description	
1 PCS	BWT-840000102	Laser safety goggles (1064 nm)	
		Laser safety goggles for lasers with excitation at 1,064 nm – suitable for Class IIIB laser systems from B&W Tek.	
1 PCS	BWT-840000294	Battery Charging Cradle	
		Lithium-ion battery charging cradle.(for charging NR-BAT and TID-BAT only).	
1 PCS	BWT-840000295	Vials for liquids, 15 mm in diameter	
		Borosilicate glass vials (diameter 15 mm), package of 6, with pouch.	

1 PCS

BWT-840000296 Stylus/pen

Stylus/pen combo for touch screens.

NR-STY



1 PCS

BWT-840000298 NanoRam Carrying Case

NanoRam hard plastic rugged carrying case.



1 PCS

BWT-840000329 Pouch for 15 mm Vials

Pouch for 15 mm vials.



1 PCS

BWT-840000342 Right-Angle Adapter

Right-angle adapter for hands-free measurement using handheld Raman instruments. Compatible with NanoRam-1064 and TacticID Mobile.



1 PCS

BWT-840000343 Point-and-Shoot-Adapter

Point-and-shoot adapter for handheld Raman instruments. Compatible with NanoRam-1064 and TacticID Mobile.



1 PCS

BWT-840000344 Vial Holder Adapter

Vial holder adapter, compatible with 15 mm-diameter vials.



1 PCS

BWT-840000345 Handheld Raman bottle adapter

Handheld Raman accessories: bottle adapter

NR2-BSA



1 PCS

BWT-840000348 Polystyrene Validation Cap

Polystyrene Validation cap with integrated ASTM standard polystyrene.



1 PCS

BWT-840000354 Pouch for adapters (NR2-PCH-ADPT)

Pouch for handheld Raman adapters compatible with NanoRam-1064, TacticID-N Plus, and TacticID Mobile.

NR2-PCH-ADPT



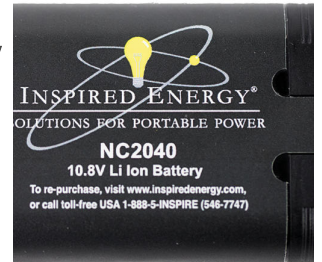
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2 PCS

BWT-840000403 10.8 V rechargeable lithium ion battery

Rechargeable lithium-ion battery: fits TacticID-N Plus, TacticID Mobile, and NanoRam-1064.

TID-BAT



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1 PCS

BWT-840000414 18 V Power Adapter

Power adapter for 18 V DC, 1.67 A. Plugs for USA, EU, UK and AU included in the scope of delivery.

TID-PWA



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1 PCS

BWT-840000858 USB cable

USB cable supporting micro USB port up to type A USB 2.0.



1 PCS

BWT-840000912 O-ring replacement kit for handheld Raman instruments

Handheld Raman O-ring replacement kit –(for shaft only).

Kit includes: O-Ring#1 ID 9.00 mm x15 and O-Ring#2 ID 10.00 mm x15 (TacticID-N Plus, TacticID Mobile, and NanoRam-1064).

TID-ORK



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1 PCS

BWT-840000969 Handheld Raman 1064 Immersion Probe

Handheld Raman Spectrometer 1064 accessory:. Contact immersion probe, 6" length, working distance approx. 1 mm, operating pressure up to 2 bar at room temperature.

NRX-CTP-IMP



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1 PCS

BWT-840000971 NanoRam-1064 Software and Product Manual

NanoRam-1064 accessories: USB flash drive containing NID EX software installation package; NanoRam-1064 Product Manual (PDF); NID EX Installation Instructions (PDF).



## Optional accessories

Order no.	Description	
BWT-840000353	Shaft Protection Cap	
	Handheld Raman shaft protective cap, package of 10.	
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-840000428	Wireless Router	
	Wireless, battery-powered portable router; 3G/4G connectivity.	
BWT-840000949	Large Spot Adapter	
	The large-spot sampling adapter is designed for use with Metrohm handheld Raman systems, providing a larger spot size and increased sampling depth to minimize the risk of sample burning, particularly for sensitive or dark-colored samples. Additionally, this adapter supports see-through capabilities when used with devices compatible with see-through software.	
	TID-STA	

BWT-840000970 Handheld Raman large bottle adapter (1064)

Handheld Raman Spectrometer 1064 accessories: Large bottle adapter with 10 mm working distance.

NRX-BSA



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BWT-840001154 Shoulder bag for HH Raman Series

Shoulder bag for TacticID series. Constructed with 1000d heavy duty fabric, multiple tactical pouches and compartment designed for rugged use and hard wearing.. Compatible with all TacticID products and NanoRam products. For transportation purposes only.

TID-SBG



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BWT-840001263 NanoRam-1064 Comprehensive USP Raman Library

Metrohm Comprehensive USP Raman Library for NanoRam-1064 containing ~ 900 traceable certified items.

