

VIAVI MicroNIR™

PAT-Wx Wireless NIR Spectrometer

A robust, wireless near infrared (NIR) process spectrometer for use in hazardous locations

Rugged and safe in hazardous locations, the MicroNIR PAT-Wx wireless process spectrometer is designed for real-time process monitoring in pharmaceutical, industrial and food process analytical technology (PAT) applications

The PAT-Wx is the hazardous location version of the popular VIAVI PAT-W wireless miniature process spectrometer. Its compact, lightweight design and automatic triggering function make it ideal for use on dynamic process equipment like tumble blenders. Since it is wireless and safe in the presence of flammable gases, vapors, or dust, the PAT-Wx is also suited to diverse process monitoring applications in hazardous environments. As a member of the MicroNIR product family, it enables moving a process directly to production in a hazardous location using chemometric models and processes developed elsewhere. The PAT-Wx integrates readily with process equipment of all types and sizes, with the performance and stability to support truly efficient – and scalable – manufacturing.



Features

- Non-invasive, real-time NIR analysis for hazardous manufacturing locations
- Safe in the presence of flammable gases, vapors, fibers, or dust
- ATEX, NEC, and IECEx certified
- Rechargeable Li-ion battery with over 8 hours of continuous run time
- Wi-Fi connection to host via included router
- Integrated motion-sensitive triggering
- Compatible with all MicroNIR chemometric models
- Washable, IP67- and IP65-rated enclosure
- Integrated PC enables fast and secure store and forward of collected spectral data

Applications

- Pharmaceutical Manufacturing
 - Tumble blending
 - Fluid bed drying
 - High shear mixing
 - Granulation
 - Tableting
- Food and Feed Manufacturing
 - Tumble blending
 - Grain & flour processing
 - Moisture, protein, fat, and sugar analysis
- Industrial Processing
 - Explosives manufacturing
 - Polymers & petrochemicals

Product Description

The MicroNIR PAT-Wx for hazardous locations (HazLoc) is very similar to the MicroNIR PAT-W on which it is based. The HazLoc conformity features include:

- HazLoc reinforced housing
- Secure battery cover (tool only)
- Recessed multifunction button
- HazLoc compatible battery
- Concealed electrical connections

The PAT-Wx shares performance specifications with the PAT-W and is certified ATEX, NEC, and IECEx compliant for use in hazardous locations and in the presence of flammable gases, vapors, dust, or fibers. Certified classes and zones are identified on the certification label shown in Figure 1.



Mounting and Process Integration

The MicroNIR PAT-W has been designed for maximum flexibility to meet the diverse requirements of process integration. A variety of mounting accessories are available to accommodate most applications. Components for custom mounts are also available.

The PAT-Wx is ideal for use on a tumble or oscillating blender where mounting a wired instrument would not be feasible. The PAT-Wx features an integrated 9-axis inertial measurement unit (IMU) that contains a 3-axis gyroscope, a 3-axis magnetometer, and a 3-axis accelerometer. The IMU enables highly accurate and repeatable triggering of spectral acquisition in the PAT-Wx at predetermined points in the blender rotation cycle.

Optical and environmental specifications are identical to the MicroNIR PAT-W and may be found on the PAT-W Data Sheet.

VIAVI SOLUTIONS INC., 2789 Northpoint Parkway, Santa Rosa, CA 95407, USA  US LISTED PROC. CON. EQ. FOR USE IN HAZ. LOC. E490544		Class I Division 2 Groups A-D T6 Class II Division 2 Groups F-G T85°C Class I Zone 2, AEx tc IIC T6 Gc Zone 21, AEx tb IIIC T85°C Db 0°C ≤ Tamb ≤ +40°C	
 II 3 G Ex tc ec IIC T6 Gc UL 20 ATEX 2449X II 2 D Ex tb IIIC T85°C Db UL 20 ATEX 2451X Ex tc ec IIC T6 Gc Ex tb IIIC T85°C Db 0°C ≤ Tamb ≤ +40°C IECEx UL 20.0121X		0°C ≤ Tamb ≤ +40°C  0539	
WARNING: Replace battery with VIAVI's 30191885 only. Use of another battery may present a risk of fire or explosion. Battery must only be replaced or charged in a non-hazardous area. See instructions.			
AVERTISSEMENT: Utilisez uniquement la batterie spécifiée 30191885. L'utilisation d'une autre batterie peut présenter un risque d'incendie ou d'explosion. La batterie doit uniquement être remplacée ou chargée dans une zone non dangereuse. Voir les instructions.			
Model: PAT - Wx S/N: S1-PAT00000 14-AOV/3-45Ah/46.70Wh Year: 2020 IP65/IP67		Install per control document E0000171-01 Read instructions Installer conformément au schéma de contrôle E0000171-01 Voir des instructions	

Figure 1. PAT-Wx Regulatory Certification Label

For more information on this or other products and their availability, please contact your local VIAVI account manager, VIAVI Worldwide Customer Service at +1-800-254-3684, or via email at micronir@viavisolutions.com.

Visit our product information page at www.viavisolutions.com/micronir



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