

# X, Y Autosampler – Transmission and Reflection, Automated Sampling in Microplate Format



## FEATURES OF THE X,Y AUTOSAMPLER

- Complete hardware and software package for automated analysis with standard 24, 48, or 96-well plates. Special configurations available.
- Diffuse reflectance of powdered samples or specular reflectance sampling for reaction residues
- Gold-coated optics version for highest performance mid-IR and NIR sampling
- Optional transmission sampling with integrated DTGS detector and transmission sampling plates
- Fully enclosed, purgeable design with CD-style loading tray
- In-compartment mounting, compatible with most FTIR spectrometers

The PIKE Technologies X, Y Autosampler is designed around standard 24, 48 or 96-well microplate architectures – ideal for high efficiency sample loading and FTIR analysis. The loading tray moves to a position outside of the accessory for easy loading and unloading of samples while conserving the purge. This also permits interface to a robot/autoloader.

Applications include high throughput analysis of liquid residues and chemical reactions, powdered samples, and automated diffuse reflection analysis. The X, Y Autosampler is available with standard all-reflective optics or with gold-coated optical components for highest performance in mid-IR and optimized NIR sampling.

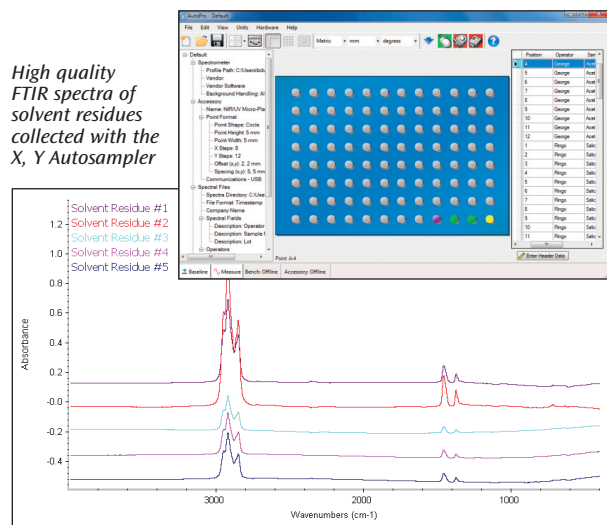
The Autosampler features an X, Y stage with both axes driven by high precision servo motors with optical encoders for speed and reproducibility. USB and DC power are the only external connections required for this accessory. The transmission option requires an external IR detector port.

Programming and control of the X, Y Autosampler is done through PIKE Technologies' AutoPRO software, which can be integrated easily with most FTIR software packages.

The optical design of the X,Y Autosampler is based upon a precision ellipsoidal reflector. The size of the spot illuminated at the sample is approximately 2 mm – ideal for up to 96-well configurations. The accessory is compatible with most brands and models of FTIR spectrometers.

A special silicon well plate is available for sample analysis by transmission. This unique 96-well plate allows collection of transmission spectra in mid-IR range. For diffuse reflection measurements a dedicated plate is available. The plate features 96 polished cavities for placement of powder samples. Please contact PIKE Technologies if you require specialized sampling plate configurations.

High quality FTIR spectra of solvent residues collected with the X, Y Autosampler



## X, Y AUTOSAMPLER SPECIFICATIONS

<b>Optics</b>	Elliptical – 3X beam de-magnification
<b>Accuracy</b>	+/- 25 $\mu$ m
<b>Mechanical Specifications</b>	
Repeatability	+/- 5 $\mu$ m
Resolution	1 $\mu$ m
Minimum Run Time	56 seconds for 96-well plate (Actual time is spectrometer and application dependent)
<b>Computer Interface</b>	USB
<b>Dimensions (W x D x H)</b>	6.25 x 13.2 x 5.55" (including micrometer)
<b>Weight</b>	10 lbs

## ORDERING INFORMATION

PART NUMBER	DESCRIPTION
047-21XX	X, Y Autosampler – Diffuse Reflectance Configuration <i>Includes: AutoPRO Software and 96-Well Diffuse Reflectance Sampling Plate</i>
047-61XX	X, Y Autosampler – Diffuse Reflectance Configuration with Gold-Coated Optics <i>Includes: AutoPRO Software and 96-Well Diffuse Reflectance Sampling Plate</i>
047-22XX	X, Y Autosampler – Diffuse Reflectance/Transmission Configuration <i>Includes: AutoPRO Software, integrated DTGS detector, 96-Well Diffuse Reflectance and 96-Well Transmission Sampling Plates</i>
047-62XX	X, Y Autosampler – Diffuse Reflectance/Transmission Configuration with Gold-Coated Optics <i>Includes: AutoPRO Software, integrated DTGS detector, 96-Well Diffuse Reflectance and 96-Well Transmission Sampling Plates</i>

Notes: Replace XX in part number with code for your spectrometer listed on the last page of this catalog. For other options please contact PIKE Technologies. For transmission option your spectrometer must be capable of interfacing with an external detector.

## X,Y Autosampler Options

PART NUMBER	DESCRIPTION
073-9110	96-Well Diffuse Reflectance Sampling Plate
073-9130	96-Well Transmission Sampling Plate

