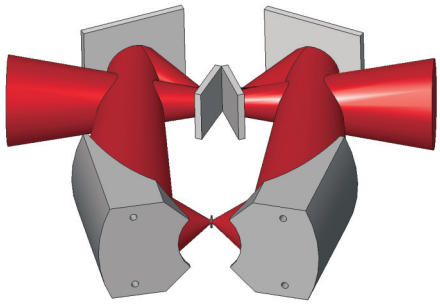
Beam Condensers –
4X and 6X Versions for FTIR

FEATURES OF BEAM CONDENSERS

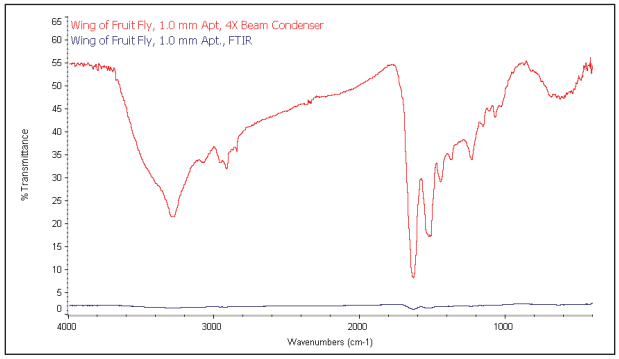
- *4X and 6X versions – providing improved spectral data for micro sampling*
- *High optical throughput – beam condensing optics provide higher signal-to-noise ratio for small samples*
- *Standard pin mounting for sample holders – providing a precise, reproducible mount for samples*
- *Standard sample holder block and alignment pinhole (1.5 mm)*
- *Optional universal spring sample holder, X, Y, Z adjustable stage, micro pellet and mull holder, and magnetic sample holder*
- *Purge enclosed accessory – includes purge tubes and purge inlet for additional purge.*
- *Compatibility with most FTIR spectrometers*



Beam Condenser Optical Diagram

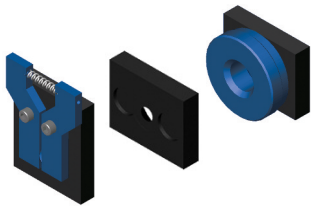
Basic beam condenser products have been available for many years. The PIKE Technologies **Beam Condenser Accessories** provide all the functionality of these basic systems with exceptional optical design and easy access to the sampling area. The unique enclosed optics provide a purged environment.

Beam condensers offer easy transmission sampling with minimal sample preparation. The PIKE Technologies beam condensers are available in 4 and 6 times beam de-magnification. The system design incorporates a layout of six mirrors, adjustable input and output mirrors and two matched 4:1 (or 6:1) ellipsoidal mirrors. Each offer a large working area to accept many types of transmission sampling accessories, including high pressure diamond cells, liquid cells, mull cells, and miniature micro holders. The sample area uses pins to ensure accurate and reproducible accessory alignment requiring no further adjustment.



Wing of fruit fly within 1 mm aperture with and without use of a beam condenser

For the most demanding applications, a precision X, Y, Z Sampling Stage is available as an option, which accommodates all sampling accessories to achieve the highest possible optical throughput and allows a point-by-point surveying an extended sample.



Sample Holders for the PIKE Technologies Beam Condensers. Left to right; **Universal Spring Sample Holder** – ideal for small spheres and gems, **Magnetic Sample Holder** – ideal for 1 or 3 mm pellet die, and the **Micro KBr Pellet and Mull Holder** – ideal for very small volume solids, liquids and paste samples (holds 13 mm windows).

Either the 4X or 6X beam condensers are available in standard or gold-coated optics for high performance mid-IR for near-IR operation.

BEAM CONDENSERS SPECIFICATIONS

Optics	All reflective, aluminum – standard gold-coated – optional
Configurations	4X and 6X de-magnifications
Sampling Options	Standard sample holders XYZ adjustable stage Pressure diamond cells and micro holders
Purgeable	Yes
Dimensions (W x D x H)	165 x 242 x 114 mm (4X) 165 x 318 x 114 mm (6X)
FTIR Compatibility	Most, specify model and type

Ordering Information

Beam Condensers

Part Number	Description
031-40XX	4X Beam Condenser *Includes the Non-Adjustable Sample Position, 1.5 mm alignment aperture, purge tubes and mount for the FTIR of your selection.*
031-60XX	6X Beam Condenser *Includes the Non-Adjustable Sample Position, 1.5 mm alignment aperture, purge tubes and mount for the FTIR of your selection.*

Notes: Please select the XX code from the fold-out on the last page of this catalog.

Adjustable Sample Position (optional)

Part Number	Description
031-2010	X, Y, Z Adjustable Sample Position

Notes: The X, Y, Z Adjustable Sample Position can be easily exchanged with the Non-Adjustable Sample Position.

Sample Holders (optional)

Part Number	Description
031-2030	Universal Spring Sample Holder
031-2040	Magnetic Sample Holder
031-2050	Micro KBr Pellet and Mull Holder

Notes: All of these Sample Holders fit to the pin position of either the Non-Adjustable Sample Position or the X, Y, Z Adjustable Sample Position.

Micro Diamond Cell (optional)

Part Number	Description
162-0010	Micro Diamond Cell, 1.6 mm
162-0020	Micro Diamond Cell, 2.0 mm
031-2070	Holder for Micro Diamond Cell

Notes: The Micro Diamond Cell includes the anvil pressure cell assembly, and Type IIa diamonds. Holder is required for use with beam condenser.

Beam Condenser Replacement Parts

Part Number	Description
031-2020	Non-Adjustable Sample Position

Notes: For options not listed here, please contact PIKE Technologies.

PIKE TECHNOLOGIES
6125 Cottonwood Drive Madison, WI 53719 • (608) 274-2721 • (608) 274-0103 (FAX) • www.piketech.com