

## Detector Couplers

Spectrometer coupling options for solid state detectors

ELEMENTAL ANALYSIS
FLUORESCENCE
GRATINGS & OEM SPECTROMETERS
OPTICAL COMPONENTS
FORENSICS
PARTICLE CHARACTERIZATION
RAMAN
SPECTROSCOPIC ELLIPSOMETRY
SPR IMAGING

A large variety of accessories are available for efficient optical coupling and analysis of signal from HORIBA's solid state detectors.

A large variety of solid state detectors are available with varying degrees of sensitivity, which cover a broad wavelength range from the UV to far-IR. A group of accessories has been designed to facilitate optical coupling to HORIBA spectrometers and guarantee accurate spectral analysis.

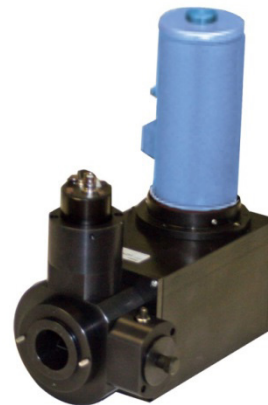
To collect as much light as possible from the exit of the monochromator, a mirror-based adapter equipped with an elliptical mirror is used (1427C). This adapter has options for housing a chopper for use with infrared detectors (J23075610), filter wheel for order sorting (J23075620), or both chopper and filter wheel (J23075630). It is also available with a gold coated mirror for increased efficiency above 550 nm



For applications requiring broad spectral coverage, there are options that allow for mounting multiple detectors simultaneously. This option eliminates the need to realign the system when switching to different spectral regions. With the use of available dual color DSS detectors, this means that up to three different detectors may be mounted on a single exit port!

The dual DSS accessory (J23078370) houses a flipping mirror to which two 1427C adapters may be mounted. A simple rotation of the flip mirror allows the user to switch between detectors.

The second dual detector housing (J23079050) also uses a mirror which may be slid into place to direct the light up and through a lens to a PMT or DSS detector. It may also be slid out of the beam path to pass the light to a second DSS detector.



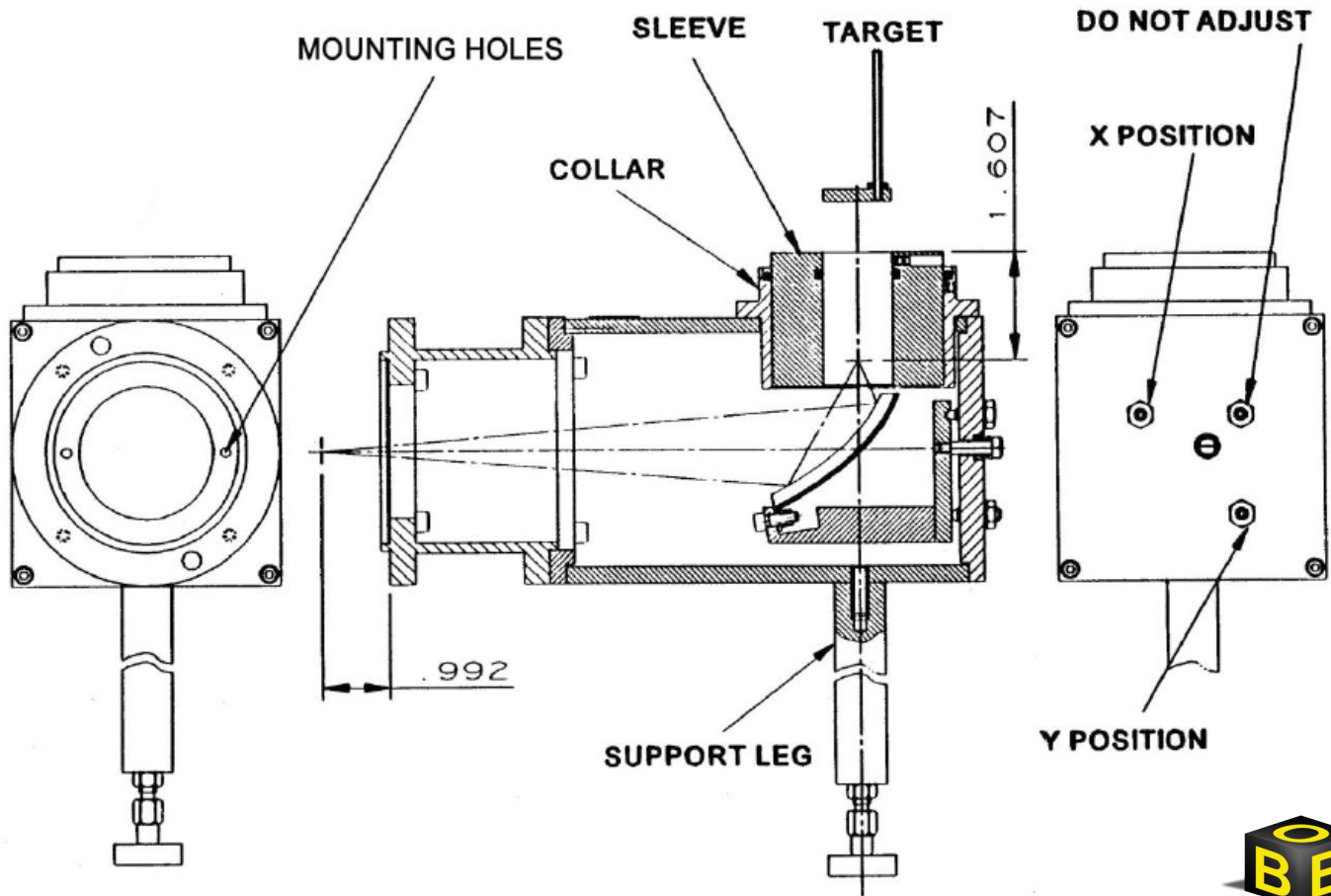
There are also several options for direct coupling of solid state detectors to the spectrometer exit without the use of any optics. It should be noted that the collection efficiency of such adapters is very low. Contact HORIBA for more details.

## Features and Benefits

- Efficient and optimal collection of signal from spectrometer exit
- Allows for use of multi-detector systems without realignment
- Designed for use with all HORIBA spectrometers

Coupler	Detector Compatibility	Chopper or Filter Wheel
1427C(-AU)	Single DSS Detector (ambient, TE, LN2)	N/A
J23075610	Single DSS Detector (ambient, TE, LN2)	Chopper
J23075620	Single DSS Detector (ambient, TE, LN2)	Filter Wheel
J23075630	Single DSS Detector (ambient, TE, LN2)	Chopper
J23078370	Two DSS Detectors (ambient, TE, LN2)	Filter Wheel
J23079050	PMT or DSS Detector (ambient, TE) and DSS Detector (ambient, TE, LN2)	N/A

## Mechanical Diagram



OPTICAL BUILDING BLOCKS



**HORIBA**  
Scientific

[info.sci@horiba.com](mailto:info.sci@horiba.com) [www.horiba.com/opticalbuildingblocks](http://www.horiba.com/opticalbuildingblocks)

**USA:** +1 732 494 8660  
**UK:** +44 (0)20 8204 8142  
**China:** +86 (0)21 6289 6060

**France:** +33 (0)1 69 74 72 00  
**Italy:** +39 2 5760 3050  
**Brazil:** +55 (0)11 5545 1500

**Germany:** +49 (0)89 4623 17-0  
**Japan:** +81 (0)3 6206 4721  
**Other:** +1 732 494 8660