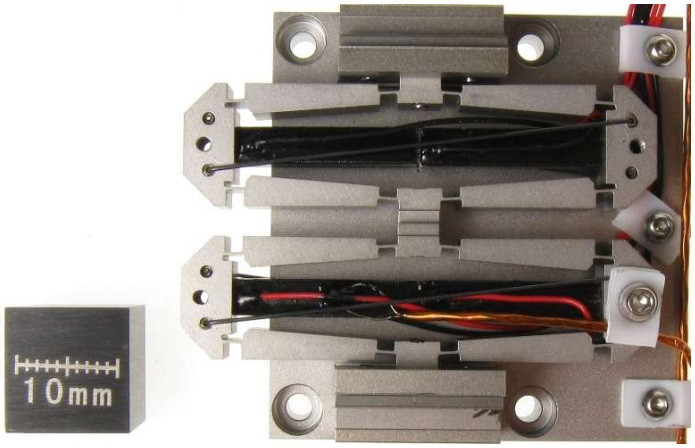
XRS1-800/900/1600/2500 Fast Piezo Shutters

Description

The XRS1 Shutters are four versions of piezo actuator driven shutter assemblies that can be used to rapidly change between the open and closed conditions. Each shutter is made using two opposed piezoelectric actuators with teeth that block the beam in the default condition and open to permit the beam to pass through when energized. Shutters are ultra-high vacuum compatible and options such as tungsten teeth can be incorporated. For dynamic applications, a K-type thermocouple is typically incorporated so that temperature can be monitored to prevent overheating. Please contact DSM for other options or questions.



- Flexure-guided for smooth, parallel motion
- UHV Compatible
- High natural frequencies and rapid response
- Customizable and scalable for new applications

Applications:

- Controlling exposure of samples to FELs and other beamlines
- Pulse Selection
- Beamline Intensity Modulation

Specifications	***XRS1-800***	***XRS1-900***	***XRS1-1600***	***XRS1-2500***
Minimum Open Aperture	680	900	1180	2500
Typical Operating Voltage (V):	0 to +160	0 to +160	0 to +160	0 to +160
First Translational Natural Frequency (Hz) :	500	900	300	500
Minimum Recommended Open Move Duration (ms) :	>3.4	>2	>5.7	>7
Minimum Recommended Close Move Duration (ms) :	>3.4	>2	>5.7	>7
Minimum Recommended Open/Dwell/Close Cycle (ms) :	>8	>5	>12	>15
Capacitance (µF):	3.4	3.4	3.4	12.8
Material:	Stainless steel	Stainless steel	Stainless steel	Titanium
Outline Dimensions (mm):	52.5 x 44 x 22.25	56.0 x 44.0 x 16.0	52.5 x 44 x 22.25	97.0 x 21.5 x 62.8