The Q1062-FSxxL series are longitudinal (compressional) mode acousto-optic Q-switches designed for use with high power polarized DPSS Nd:YLF and Nd:YAG lasers. These devices exhibit very low insertion loss and high damage threshold. All Isomet AO Q-switches benefit from the company's unparalleled experience in OEM manufacturing, with all key processes maintained in-house. These include optical fabrication, A/R coating and proven high power transducer bonding technology.

### Specifications

**Acoustic Frequency:** 24.0MHz, 27.12MHz or 40.68MHz  
**Interaction Material:** Fused Silica  
**Wavelength:** 1047nm to 1064nm  
**A/R Coating:** < 0.2% / surface  
**Active Aperture, H:** 2.0, 3.0, 4.0 and 5.5 mm *  
**Clear Aperture:** 9.0mm  
**Acoustic Mode:** Longitudinal (compressional)  
**Rise/Fall time:** 109nsec / mm beam waist  
**Polarization:** Linear  
**Transmission:** > 99.5% (single pass)  
**Cavity Insertion Loss:** 10% max, <5% typical  
**Damage Threshold:** > 500MW/cm²  
**RF power:** Up to 70W (aperture dependent)  
**Cooling:** Water, 22+/-5 ºC, 380ml/min  
**Input Impedance:** 50 Ohms  
**VSWR:** < 1.2:1  

### Model Selection:

<table>
<thead>
<tr>
<th>Freq</th>
<th>Active Aperture</th>
</tr>
</thead>
<tbody>
<tr>
<td>24.0MHz</td>
<td>2</td>
</tr>
<tr>
<td>27.12MHz</td>
<td>3</td>
</tr>
<tr>
<td>40.68MHz</td>
<td>4</td>
</tr>
<tr>
<td>24.0MHz</td>
<td>2mm</td>
</tr>
<tr>
<td>27.12MHz</td>
<td>3mm</td>
</tr>
<tr>
<td>40.68MHz</td>
<td>4mm</td>
</tr>
</tbody>
</table>

* Please contact Isomet for alternative apertures.
Outline Drawing

Note: Coolant in contact with aluminium case parts

APERTURE .593 I.D.

M4-.70 PITCH x.38 DEEP, 4 PLACES

OPERATIONAL CONDITIONS
1. OPERATING CIRCUMFERENCE TEMPERATURE: 5 - 40 degC
2. OPERATING CIRCUMFERENCE HUMIDITY: LESS THAN 80% RH NO CONDENSATION.
3. COOLING WATER: PURE WATER
4. COOLING WATER TEMPERATURE: 22 degC +/- 5 degC
5. COOLING WATER FLUX: MORE THAN 0.38L/min.
6. COOLING WATER PRESSURE: RATING 1kg/cm² MAX 5kg/cm²

Recommended Drive Electronics
RF Driver with Modulation Control AQS1080-FC-x