The Q1083-FS series are longitudinal mode acousto-optic Q-switches, designed for use with high power polarized lasers. These devices exhibit very low insertion loss and high damage threshold. All Isomet AO Q-switches benefit from our unparalleled experience in OEM AO manufacture, with all key processes maintained in-house. This Includes optical fabrication, A/R coating and proven high power transducer 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:** 3.0, 4.0 and 5.0 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 60W (aperture dependent)
- **Cooling:** Water, 27+/−5 °C, 250ml/min
- **Input Impedance:** 50 Ohms
- **VSWR:** < 1.2:1

**Model Selection:**

<table>
<thead>
<tr>
<th>Freq</th>
<th>Active Aperture</th>
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<tr>
<td>24.0MHz</td>
<td>24</td>
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<tr>
<td>27.12MHz</td>
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<td>40.68MHz</td>
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* Please contact Isomet for alternative apertures.
Outline Drawing

Note: Coolant in contact with aluminium case parts

RF INPUT
BNC FEMALE

THERMAL CUT-OUT
SMC MALE

MOUNTING HOLES, 6-32 UNC x 4mm DEEP
6 PLACES

WATER CONNECTOR
BARBED, 2 PLACES
3.90mm I.D. TUBING

Recommended Drive Electronics
RF Driver with Modulation Control
AQS1060-FC-x