

Gooch & Housego



VHE

Acousto-Optic Q-Switch

The VHE (Very High Efficiency) acousto-optic Q-Switch is ideal for use in high gain, high power, linearly polarised Nd:YAG & NdYVO₄ lasers. Using a unique patented acousto-optic design, it provides up to 96% single pass loss modulation, compared to ~85% for conventional designs.

Utilising our 'Stallion' manufacturing technique providing superior corrosion resistance whilst maintaining optimum performance and RF power handling capabilities up to 100W.

In addition to the standard product shown, custom configurations are available for specialised applications. These include alternative housing options and custom wavelengths.

Our scientists and engineers are available to assist in selecting the most appropriate model of Q-Switch and also RF driver for your application.

Please contact the sales team for further information.

Key Features:

Exceptional loss modulation Superior corrosion resistance Stainless steel cooling channels High damage threshold Push fit water-connectors Up to 100W RF power handling Custom configurations available

Application examples:

Material processing:

- Marking
- Engraving
- Scribing
- Surface treatment





General Specifications

Interaction material: Crystal Quartz Wavelength: 1064nm

AR coating reflectivity: < 0.2% per surface

Damage threshold: > 1GWcm⁻²
Transmission (single pass): > 99.6%
RF Frequency: 68MHz

VSWR: $< 1.2:1 (50\Omega \text{ input impedance})$

RF power rating:

Loss Modulation:

Water flow rate:

Water-cooling channel material:

Recommended water temperature:

Thermal switch cut-off:

Storage temperature:

100W cw (max)

> 95% (single pass)

> 190cc / minute

Stainless steel 316

+22°C to +32°C

+65°C +/- 5°C

-20 to +70degC

Ordering Codes

Example: I-QS068-2.5V10G-N5-ST3 (Q-Switch, 68MHz, 2.5mm active aperture, VHE, Crystal Quartz, 1064nm, 4mm OD straight push fit water-connectors, BNC, Stallion housing with M3 mounting holes)





