

Dayoptics LiNbO₃ electro-optic Q-Switch is a Pockels cell type Q-Switch consisting of two matched lithium niobate crystals packaged in a compact housing. Applying an electric field to the crystal induces a change of refraction, giving rise to an electric field-dependent birefringence, which leads to a change in the polarization state of the optical beam. The EO crystal acts as a variable waveplate with retardance linearly in the applied electric field. By placing a linear polarizer at the exit, the beam intensity through the polarizer varies sinusoidal with linear change in applied voltage.

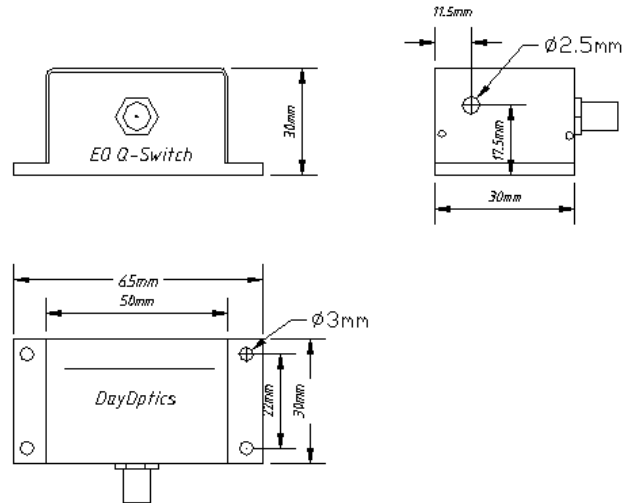
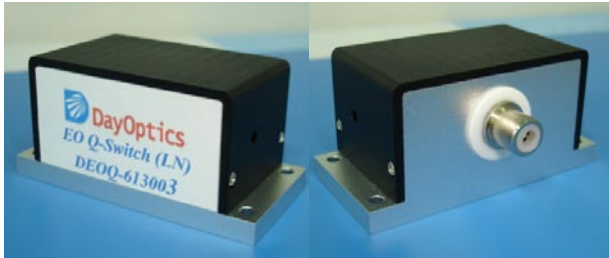


Figure1: Mechanical Drawings

Applications

- OEM Laser Systems
- Medical/Cosmetic Lasers
- Versatile R&D Laser Platforms
- Military & Aerospace Laser Systems

Specifications	Description
Q-Switch Crystal	Lithium Niobate (LiNbO ₃)
Wavelength Range	1064nm
Clear Aperture	Dia2.5mm
Input Connector	SMA
Max Optical Power Density	4W/mm ² @1064nm
Capacitance	12pF (typical)
1/4 Wave Voltage @1064nm	264V

EO Q-switches – KD*P

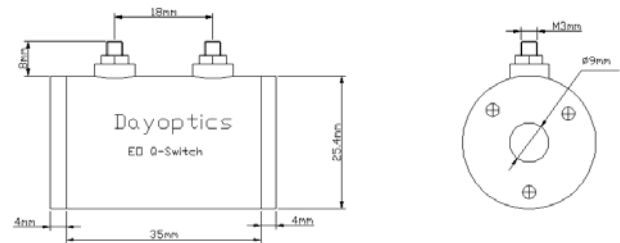
A Pockels cell alters the polarization state of light passing through it when an applied voltage induces birefringence changes in an electro-optic crystal such as KD*P. When used in conjunction with polarizers, these cells can function as optical switches, or laser Q-switches.



Our DEO Q-switch employs the finest strain-free, highly deuterated KD*P available. Based on Dayoptics advanced crystal fabrication and coating technology, we can offer a variety of laser wavelengths EO Q switches which exhibits high transmission ($T > 97\%$), high damaged threshold ($> 500\text{W}/\text{cm}^2$ CW) and high extinction ratio ($> 300:1$).

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FEATURES

CCI Quality - Economically Priced

Finest Strain-free KD*P

Space Efficient

Ceramic Apertures

High Contrast Ratio

Quick Electrical Connectors

Ultra-flat Crystals

BENEFITS

Exceptional Value

High Contrast Ratio

High Damage Threshold

Low 1/2 Wave Voltage

Ideal for Compact Lasers

Clean and Highly Damage-resistant

Exceptional Hold-off

Efficient/Reliable Installation

Excellent Beam Propagation

Electro-optical @ 1064nm

1/4 Wave Voltage

3.3 kV

Transmitted Wave Front Error

$< 1/8$ Wave

ICR

$> 2000:1$

VCR

$> 1500:1$

Capacitance

6 pF

AR @ 1064nm, 10ns pulse

$5\text{J}/\text{cm}^2$

Housing Dimensions	DEOQ-253508	DEOQ-253510	DEOQ-254513
Aperture	8 mm	10 mm	13 mm
Length	39 mm	39 mm	45 mm
Diameter	25.35 mm	25.35 mm	25.35 mm