



A compact Acousto-Optic Frequency Shifter featuring low power 100mW 40MHz supply requirement and high diffraction efficiency, this device is ideal for use in heterodyne interferometric systems, particularly laser Doppler velocimetry and has been designed to facilitate double pass configuration.

In addition to the specifications indicated, we also offer alternative wavelengths, RF frequencies, active apertures & a wide range of custom housing configurations. We also offer full custom design & manufacturing, enabling our customers to achieve the perfect solution.

Our scientists and engineers are available to assist in selecting the most appropriate Acousto-Optic device and RF driver for your application.

Please contact our sales team for further information.

## 40MHz, 630-690nm AO Frequency Shifter

# I-FS040-2S2E-3-OL3

#### **Key Features:**

40MHz 630-690nm <100mW drive power High efficiency Tellurium Dioxide

#### **Applications:**

Industrial:

- Laser Doppler Vibrometry
- Laser Doppler Velocimetry
- 3D laser scanning



Contact: sales@goochandhousego.com

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As part of our policy of continuous product improvement we reserve the right to change specifications at any time IWDS030 V1.1



### **General Specifications**

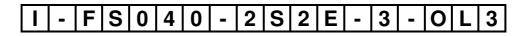
Device: Interaction material: RF Drive Frequency: Operational wavelength: Reflectivity per surface: Minimum optical aperture: Active aperture: Transmission: Maximum diffraction efficiency: Polarisation of input beam: Polarisation state of 1st order:

Zero to 1st order polarisation extinction ratio: Output Configuration:

Separation (0 to Diffracted-order): RF Drive Power: Input Impedance: RF connector: AO Frequency shifter **Tellurium Dioxide** 40MHz 630 - 690nm < 0.3%  $4 \times 2.5 \text{ mm}$  (horizontal and vertical) 2.0mm (vertical) > 95% @ 633nm > 90% @ 633nm Linear and horizontal with respect housing Linear and orthogonal to input and zero order beams > 100:1 Diffracted & undiffracted beams split about Input direction. > 20 ≤ 100mW 50Ω SMA Bulkhead Jack

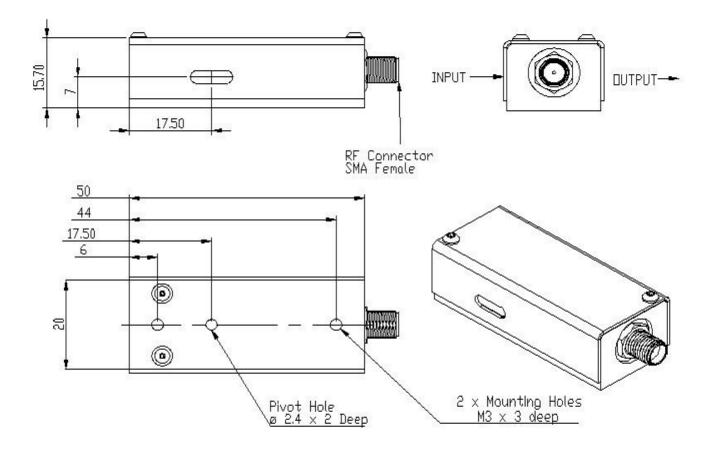
## **Ordering Code**

**Explanation: I-FS040-2S2E-3-OL3** (Frequency Shifter, 40MHz, 1.5mm active aperture, shear mode, Tellurium Dioxide, 630-690nm, SMA male, OL3 housing).



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