



Gooch & Housego



AO Frequency Shifter with integrated RF driver

I-FS040-1.5C2E-1-ME1

Former model number: FS040-2E-ME1

A compact Acousto-optic frequency shifter with an integral RF driver and $\div 4$ reference output, suitable for use over the range 630 – 690nm.

Featuring a generous active aperture, low power 15V DC 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 configurations.

In addition to the specifications indicated, we also offer alternative wavelengths, frequency shift, active aperture & integrated driver characteristics.

Key Features:

- Compact integrated design
- High efficiency
- 630 – 690nm
- 40MHz, with 10MHz reference output
- Custom configurations available

Applications:

Industrial:

- Vibrometry
- Process control

Scientific:

- Interferometry

General Specifications

Interaction material:	Tellurium Dioxide (TeO ₂)
Acoustic mode:	Anisotropic, slow shear
Wavelength:	630 to 690nm
AR coating reflectivity:	< 0.2% per surface
Transmission:	> 95%
Frequency shift:	40MHz
Frequency drift / °C:	< ± 10 ppm
Clear aperture:	4 x 2mm (horizontal x vertical)
Active aperture:	1.5mm (vertical)
Input polarisation:	Linear, horizontal with respect to housing base
Output polarisation (1 st order diffracted):	Linear, vertical with respect to housing base
0 / 1 st order polarisation extinction:	> 100:1
Zero and 1 st order beam symmetry:	Symmetrical to the left and right of straight through direction $\pm 0.5^\circ$
Angle between zero and 1 st order beams:	2.4° at 655nm
Supply voltage:	15VDC ($\pm 10\%$)
Power consumption:	< 1.5W
VSWR:	< 1.2:1
Maximum diffraction efficiency:	> 90%
Reference RF output:	10MHz sine-wave voltage of 0.5 to 1V peak to peak



光技術をサポートする
株式会社オプトサイエンス
<http://www.optoscience.com>

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Ordering Code

Explanation: I-FS040-1.5C2E-1-ME1 (Frequency shifter, 40MHz, 1.5mm active aperture, compressional mode, tellurium dioxide, 633nm, SMB female bulk head (reference output), ME1 housing (integrated driver))

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