



# Gooch & Housego

## Fibre-Q (Non Hermetic)



### 1060nm Fibre-Coupled Acousto-Optic Modulator

S-M150-0.4C2G-3-F2S

Gooch & Housego specialise in providing optical components for high power fibre laser and amplifier systems. In-house control of critical manufacturing processes, from crystalline material selection and orientation, cutting, polishing and AR coating through to fibre coupling, ensure our components are of the highest optical quality.

The 'Fibre-Q' Acousto-Optic Modulator is designed for use in pulsed fibre laser amplifier systems. Giving optimum performance in demanding applications, such as material processing.

In addition to the standard product shown, custom configurations are available for specialised applications.

#### Key Features:

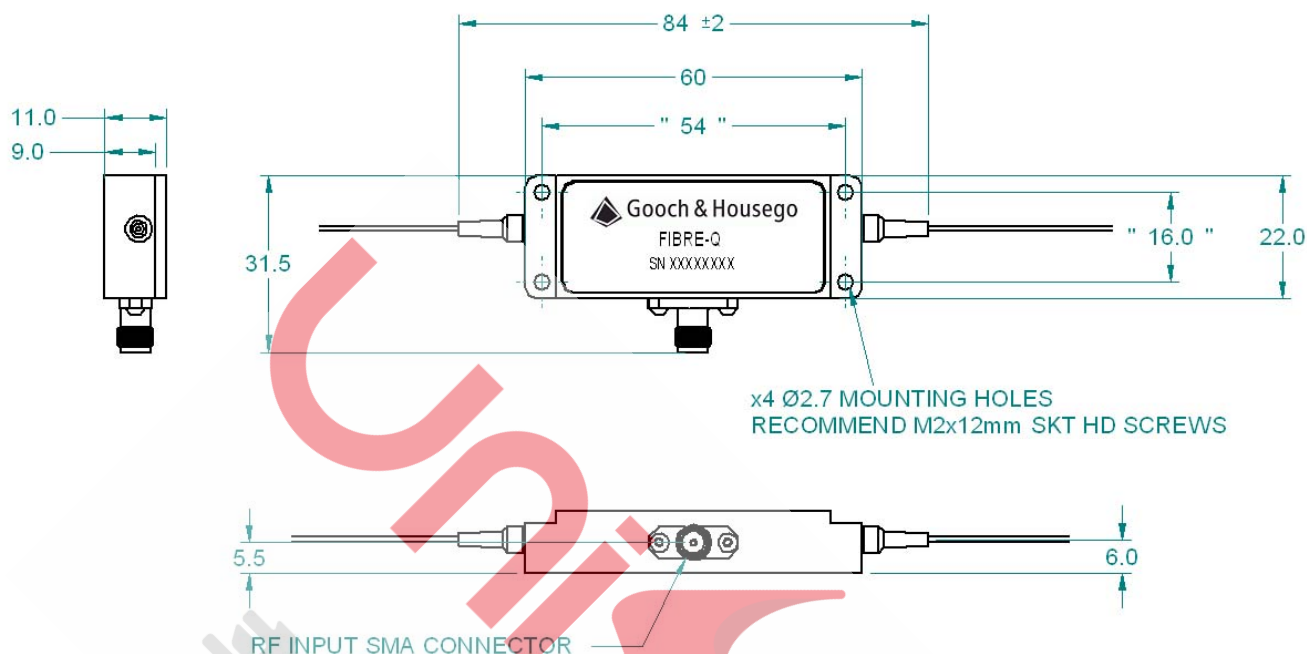
- Low insertion loss
- Compact, low profile package
- Sealed to IP54 (dust/splash proof)
- Stable performance
- Custom configurations available

#### Applications:

- Fibre laser
- Fibre amplifier
- Pulse picker

## General Specifications

| Parameter   | Unit     | Min  | Max   | Typical | Comments                               |
|---|----------|------|-------|---------|--|
| Interaction material:                             | -        | -    | -     | -       | Tellurium Dioxide                      |
| Wavelength:                                       | nm       | 1030 | 1090  | 1060    | Other wavelengths available on request |
| Average optical power handling:                   | W        | -    | 5     | -       |  |
| Peak (pulse) optical power handling:              | kW       | -    | 1     | -       | Dependent on pulse width               |
| Insertion loss:                                   | dB       | -    | 2     | 1.7     |  |
| Polarisation Dependant Loss                       | dB       | -    | 0.5   | 0.2     |  |
| Extinction ratio (1 <sup>st</sup> order on / off) | dB       | 50   | -     | -       |  |
| Return Loss (RF ON)                               | dB       | 40   | -     | -       |  |
| Rise-time / fall-time: (10% - 90%)                | ns       | -    | 30    | -       |  |
| Frequency:  | MHz      | -    | -     | 150     |  |
| VSWR:   |          | -    | 1.3:1 | -       |  |
| Input impedance:                                  | $\Omega$ | -    | -     | 50      |  |
| RF power:   | W        | -    | 2     | -       |  |
| Frequency shift:                                  | MHz      | -    | -     | 150     | Upshift                                |
| Fibre type:                                       | -        | -    | -     | -       | HI1060                                 |
| Fibre length                                      | m        | 1.5  | -     | -       | 900 $\mu$ m black sleeving             |
| Fibre termination:                                | -        | -    | -     | -       | Bare fibre, connectors optional        |



General Tolerance : ± 1mm

### Other Gooch & Housego products which may be of interest:

Our extensive range of components for fibre laser applications includes:

- Isolators
- High reliability hermetically sealed Fibre-Q
- High power multimode combiners
- Combiners with all types of signal feedthrough fibre
- Ultra low ratio tap couplers
- WDMs for combining signals with red pointer lasers

Please send your specifications to [sales@goochandhousego.com](mailto:sales@goochandhousego.com) or contact your local sales representative to discuss your requirements.