OEM Compact Monochromator MF-34

The new OEM compact monochromator MF34 has been designed around an aberration–corrected, type IV concave holographic grating. The diffraction grating plays a triple role:

- Collimator
- Dispersing
- Focusing

With a 100 mm focal length and a F/2.6 aperture, the new MF34 is equipped with a rapid scanning direct drive system; the wavelength drive is directly coupled to a stepper motor.

- Concave grating.
- Focal length : 100 mm.
- Deviation : 34.7°.
- Aperture : F/#:2.6.
- Dispersion : 7 nm/mm (with 1200 g/mm).

Different models of slits are proposed depending on the resolution requested by the customer. The basic model is supplied with a pair of slits of 0.5 or 1 mm width.

Different models of stepper motors are proposed depending on the resolution requested by the customer.

In the basic model, the MF61 is equipped with a 4 phases stepper motor with 12000 step/360°. The spectral range can be scanned in less than 1 sec.

4 models are available, from the UV range to the IR range.

The MF34 is made specifically for volume orders. We can offer custom modifications to volume customers.
Performances:
- Resolution: <1 nm FWHM (with 100 µm*4 mm slits)
- Wavelength accuracy: ± 1.5 nm with a fitting
- Step repeatability: ± 0.2 nm (with 1200 g/mm)
More sophisticated motors can yield better wavelength accuracy and reproducibility.

Options:
- SMA connectors (instead of the pair of slits)
- 2 phases stepper motor
- Other on request

Applications:

<table>
<thead>
<tr>
<th>Spectral Range (nm)</th>
<th>UV</th>
<th>UV-VIS</th>
<th>VIS-NIR</th>
<th>NIR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ref.</td>
<td>MF34-UV</td>
<td>MF34-UVIS</td>
<td>MF34-VNIR</td>
<td>MF34-NIR</td>
</tr>
</tbody>
</table>

The main applications are fluorescence, medical diagnostics, spectrophotometry, environment, clinical chemistry, semiconductor characterization.

We are pleased to work with you to find a suitable solution to your requirements.