



1" Beamsplitter Mount

# BSM1000S

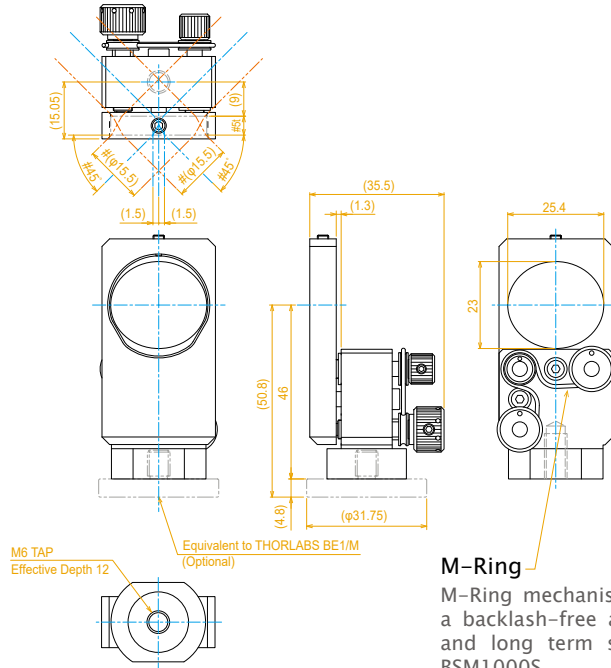


FMD provides an ultrastable beamsplitter mount equipped with M-Ring mechanism. Visibility of Mach-Zehnder interferometer which consists of 12 pcs of BSM1000S is stable for a long time as shown in a test data.



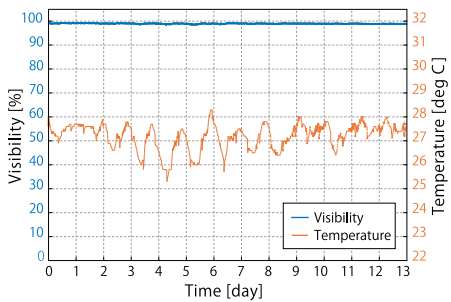
An example of the use of BSM1000S (at Prof. Furusawa lab)

## BSM1000S 1" Beamsplitter Mount



### M-Ring

M-Ring mechanism enables a backlash-free adjustment and long term stability of BSM1000S. (Patent No. 4963071, JP)

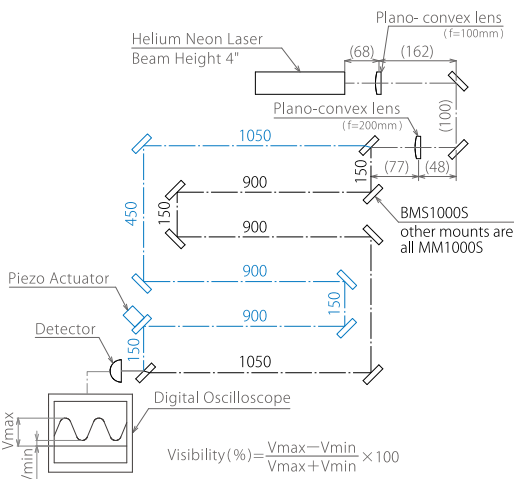


### Test data

Material	Extra Super Duralumin (ESD)
Surface Finish	Anodized (color: FMD blue, sandblasted)
Thickness	35.5 mm
Weight	Approx. 70 g (except the optics)
Optics	φ1", thickness: 5 to 9.5 mm
Transmitted Light	φ23 mm (Straight) , φ15.5 mm (45°)
Mounting Method	M6 TAP (effective depth 12)
Adjustment Screw	0.15 mm pitch screws (170TPI)
Adjustment Angle	±3°

Angular Resolution	
Tilting Direction	0.00149° (26 μrad) when rotated 1°, 0.54° by one revolution
Rotating Direction	0.00125° (22 μrad) when rotated 1°, 0.45° by one revolution

Remarks	<ul style="list-style-type: none"> <li>• Combination with BE1/M makes the height of light axis 2". Shown in the drawing.</li> <li>• Available to use for transmitted light (Bidirectional from both right and left-side in the same time)</li> <li>• M-Ring (Patent No. 4963071, JP) is equipped.</li> <li>• Soft-lock Mechanism is employed. (Patent application No. 2005-312867, JP)</li> <li>• Shipped with interferometric stability data.</li> <li>• Ultra-fine adjustment with almost no backlash can be made by using the φ12 knobs attached to both tilting and rotating directions and the specially designed FMD tool SCR-ADJ.</li> </ul>
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### Test setup