

Re: Mirror Mount Question

Source: <http://sci.tech-archive.net/Archive/sci.optics/2007-09/msg00018.html>

- *From:* "skrubin@xxxxxxxx" <skrubin@xxxxxxxx>
 - *Date:* Mon, 10 Sep 2007 13:35:11 -0000
-

On Sep 10, 6:39 am, "Iain Mackay" <no_one@here> wrote:

Optics folks

I'm looking for a manufacturer of a mount suitable for use in the moving mirror in a Michelson Interferometer.

I'm using 1" square mirrors and a 1" cube BS and tried using Edmunds mounts for the mirrors, but I now realise that these are kinematic mounts and are not really suitable for what I want. (I believe that they are designed to provide the maximum freedom of movement with the minimum number of 'screws'. It *is* possible to set up the MI with these mounts, but adjustment in one plane is difficult.

Before I set off on a possibly expensive custom mount I thought I'd check and see if there is anything out there.

What I'm looking for is a mount that will allow precise 'X' translation possibly with a differential type adjuster (to set the path length) together with a '3 screws set in a triangle' type of mount to allow parallelism and tilt (for controlled fringe formation) in the Z axis to be controlled.

Can anyone point me in the right direction? – a UK supplier preferred but not essential

TIA

Iain M

Iain,

I work at Thorlabs and can recommend a solution which you might want to consider.

If you use our KC1 kinematic mount together with a SM1Z Z-Axis mount you can have independent Z-axis and kinematic operation. The only thing is that the SM1Z is for round mirrors only.

Using four ER rods (such as ER2) you could mount the SM1Z onto the KC1

Re: Mirror Mount Question

such that when the angular setting of the KC1 is adjusted, the SM1Z will move together with it. The SM1Z can then be used for the Z-Axis adjustment.

Hope this was helpful, if I can be of any more help just let me know by replying to this message.

Cheers

Sam

.