

GTD E.Fric

Precision Friction Drive Mount

FAQ

How can it be balanced?

The clutches can be fully disengaged to allow perfect balancing. The DEC motor is placed asymmetrically which leaves a slight unbalance in RA.

What happens if power is lost?

There is still sufficient holding torque to keep your equipment from moving if you have balanced the mount at least approximately.

How much is the PE?

A pure friction drive has no PE. The tracking precision is under 1" for unlimited time.

Can PEC be used?

No, PEC is not possible and is useless.

How durable is the drive disc?

If used for what it is intended for, it has unlimited life. The materials used are far overspecified for the load conditions.

What counterweight can be used?

30 mm or 1-1/4" bore weights are ok. Remember that using weights with larger bores, even if they lock, creates a torque on the DEC axis that must be compensated by sliding the OTA.

Are there mechanical stops on the axes?

The RA axis cannot rotate a full 360 deg because the DEC gear interferes with the RA gear cover when the OTA is in the East and you want to slew further East. A meridian flip will solve the problem. The DEC axis has no stops.

Can it track past the meridian?

Yes, there is no mechanical constraint on tracking past the meridian. Some controllers do not support this, though.

What controllers can be used?

E.fric has bipolar stepper motors that run from 1A and above. All drivers that support such motors and have programmable reduction rates can be used. The reduction rate is engraved on the motor covers.

What are the main dimensions of the mount?

The technical sheet of the E.fric has size info and much more.

How long can it track unguided?

The mount itself can track within 1" for unlimited time.

Unguided exposures in practice range from 2 to 15 min. To get the maximum out of the mount, pay attention to the following:

- polar alignment done by plate solving (polemaster, SharpCap, Asiair, etc.) Drift method is not suitable.

- Good balancing - this ensures that differential flexures are at the minimum possible

- If your driver allows, fine tune the tracking speed. If your driver allows, use a sky model to control the tracking speed in real time.

- Make sure your OTA, focuser etc. are free of loose or weak parts.

How fast can the mount slew?

This depends on the controller and the power supply. Values range from 1 to 5 deg/sec.

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