

SPACE SCIENCE

ESA's LISA Pathfinder Project

The Application

An Austrian company has responsibility to design and manufacture a high precision measurement system for a sub-system of the LISA Pathfinder Project to be used on a mechanical ground support equipment for testing purposes. The objective is to determine the (6DOF) position of a metal cube before and after environmental testing with an accuracy of $\pm 60 \mu\text{m}$ and $\pm 60 \mu\text{rad}$.

The Sale

The customer purchased two 10DMS racks equipped with 6 sensors in each, model mcDMS-RC85-T2/BT5, with threaded and 90° tips shown in the photos here. The model RC85 was created for this project because it has 15% better resolution than the RC100.



NASA JPL Telescope Project

The Application

The glass lens of a telescope must be accurately positioned in 6 degrees of freedom to achieve perfect imaging. Engineers at Nasa's Jet Propulsion Lab chose Philtec's fiberoptic sensors to measure micron level displacements of critical telescope components while making such adjustments.

A key to the success of the project was the LabVIEW drivers supplied with the DMS units. JPL engineers found them easy to program and work with. They reported excellent imaging results were achieved at room temperature!

Their next objective will be to repeat the process at low temperatures in vacuum.

The Sale

The customer purchased

- 2 BvF Multi-Channel Vacuum Passthru and
- 8 DMS-RC60-C1ET1 sensors (4 per Bvf).

