

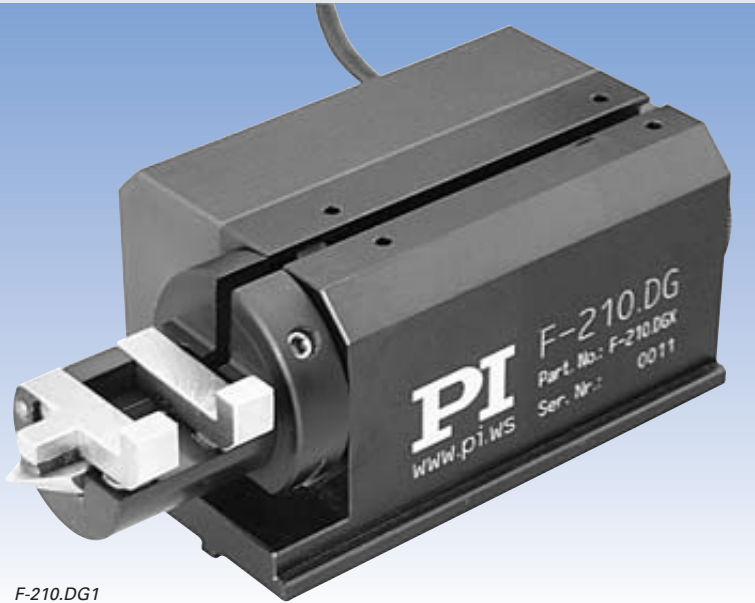
F-210

**Fiber Rotator with
Closed-Loop DC Motor**

- PZT Actuators
- PZT Flexure NanoPositioners
- PZT Active Optics / Steering Mirrors
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- Photonics Alignment & Packaging Systems**
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F-210.DG1

Precision Mechanics for Precision Motion

The use of precision mechanics means that the fiber tip deviates only minimally from the optical axis during rotation. The requirements met by the fiber holder are also very high. The holder is mounted in a slot on the rotator and held on both sides with set screws, so as to permit alignment of the holder with the axis of rotation. All accuracy data given refer to the fiber tip, which can be adjusted separately in the fiber holder.

Important Component in PI Alignment Systems

With the C-880 Multi-Axis Automation Controller and the F-206 Alignment Robot, PI offers two systems with which fiber or array coupling processes can be automated. The

hardware and software of both systems supports use of the F-210 Fiber Rotator, so that polarization-preserving fibers can also be properly adjusted.

- **Motorized Rotation of Polarization-Preserving Fibers**
- **Direction-Sensing Reference Switch for Fast Alignment Processes**
- **Fiber Holder for Precision Rotation Around the Fiber Tip**
- **Compatible with PI Systems F-206 and C-880**

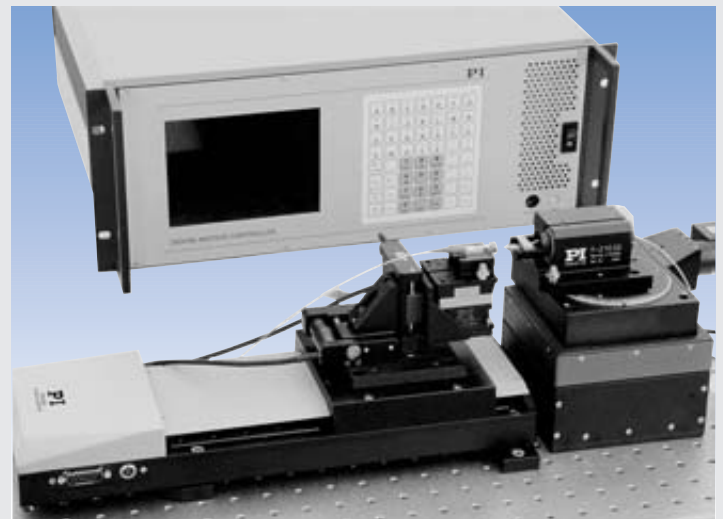
The F-210 Fiber Rotator allows rotating polarization-preserving single-mode fibers up to 90° in either direction parallel to the optical axis. The fiber lies in a groove that runs all the way through the full length of fiber rotator. The fiber is held at the tip in a fiber holder specially designed for the F-210. This design protects the fiber from kinks, both during setup and operation.

Application Examples

- Photonics Packaging
- Alignment of Polarization Preserving Fibers
- Tilting of Arrays
- Tilting of MEMS

Ordering Information

- F-210.DG1**
Fiber Rotator, Closed-Loop DC Motor, with Fiber Holder
- F-210.DG**
Fiber Rotator +/- 90°, Closed-Loop DC Motor
- F-210.02**
Fiber Holder for F-210.DG



F-210 fiber rotator in an alignment system together with PI Micro- and NanoPositioning stages: Left side from top to bottom: P-611.3SF NanoCube™ XYZ positioning system with nanometer resolution 3x M-111.1DG XYZ positioning system with 15 mm travel per axis M-511.DD 100 mm linear motion, direct output metrology, 50 mm/s velocity Right side from top to bottom: F-210.DG1 fiber rotator M-061.PD rotary stage M-501.1PD vertical stage with 12.5 mm travel All components are driven with the C-880 multi-axis automation controller

