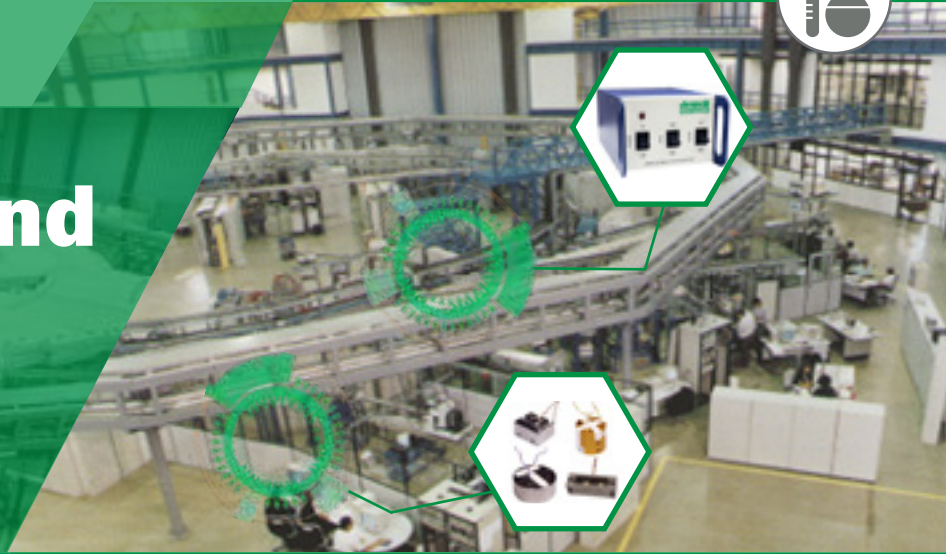




Synchrotron and Particle Beam Applications



- **Objectives:** Maintain precise angular positioning
- **Solution:** **Electrolytic 900/700 series** and **Model 781**
- **Benefits:** High resolution and extreme repeatability
- **Results:** Continuous and accurate data collection

Overview

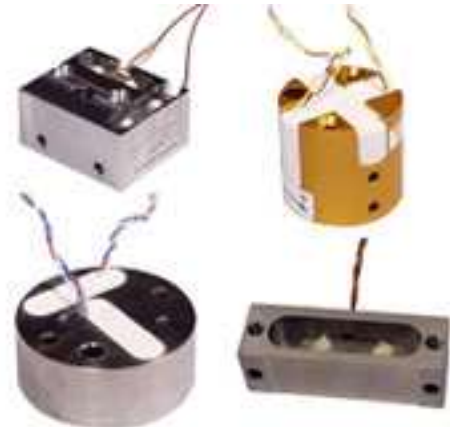
Researchers in the field of high-energy physics use Jewell Instrument angle measurement products in a variety of ways. Because of their high resolution and repeatability, they are effective tools for finely adjusting the magnets that align particle beams. Users of synchrotron light find our sensors to be especially valuable for precise angular positioning of X-ray mirrors and monochromators. Jewell Instrument's tilt sensors maintain an absolute reference with respect to gravity and, unlike optical encoders,

do not need to be reinitialized on power up.

[Miniature Tilt Sensors \(Jewell Instrument Models 755 and 756\)](#) are very popular because of their small size and high sensitivity, and because they are available in vacuum-compatible versions. Models [701](#) and [711 Tiltmeters \(biaxial\)](#) and [900-Series Tiltmeters](#) are used where more space is available, or where vacuum compatibility is not an issue. Our instruments offer researchers powerful positioning and alignment capabilities at competitive prices.



Jewell Instruments [Model 781](#) precision, two-channel bench-top signal conditioner



Jewell Instruments [755 and 756](#) type miniature tilt sensors



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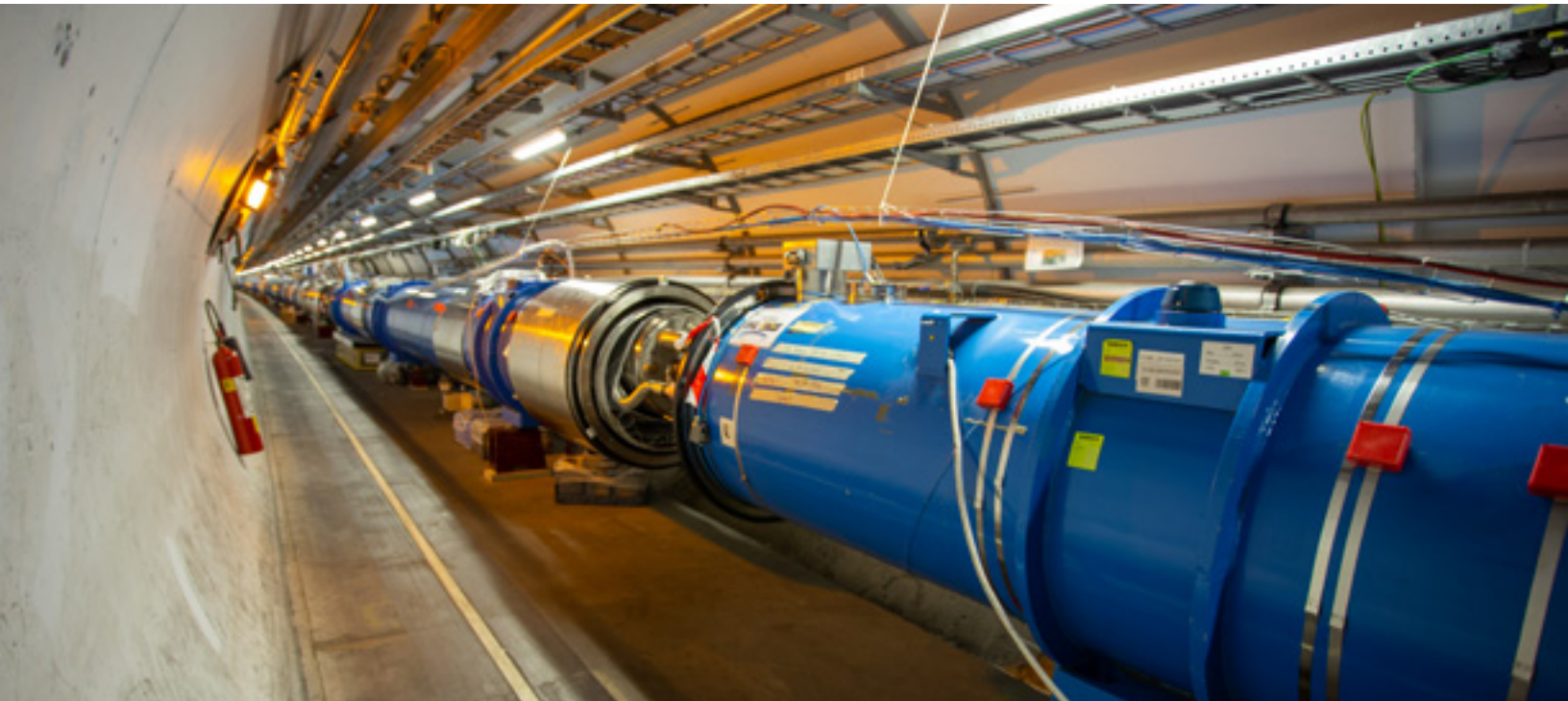


Web :
jewellinstruments.com



Our Tiltmeters Are Used At:

- Advanced Light Source (ALS), Berkeley, California
- Advanced Photon Source (APS), Argonne, Illinois
- Center for Advanced Microstructures and Devices (CAMD)
- Cornell High Energy Synchrotron Source (CHESS)
- CERN, Switzerland
- Daresbury Synchrotron Light Source, U.K.
- Deutsches Elektronen-Synchrotron (DESY), HASYLAB at DESY
- European Synchrotron Radiation Facility (ESRF)
- Koh-Ene-Ken, National Laboratory for High Energy Physics (KEK), Photon Factory (PF)
- National Synchrotron Light Laboratory (LNLS) Sau Paulo, Brazil
- NIST Synchrotron Ultraviolet Radiation Facility, SURF II
- National Synchrotron Light Source (NSLS), Brookhaven, New York
- Pohang Accelerator Laboratory, Pohang, Korea
- Super Photon Ring - 8 GeV (SPring8), Nishi-Harima, Japan
- Stanford Synchrotron Radiation Laboratory (SSRL)
- Stanford Linear Accelerator Center (SLAC)
- Swiss Synchrotron Light Source (SLS)
- Synchrotron Radiation Research Center (SRRC), Hsinchu, Taiwan, R.O.C.



Jewell Instruments [series 900 tiltmeters](#)

About Jewell Instruments

Jewell Instruments is a world leader in the design, manufacture, and distribution of high-precision products. Our expertise includes acceleration and tilt sensors, electronic compasses, avionics components, solenoids, and panel meters. The extensive application knowledge we have obtained through decades of experience allows us to provide custom solutions for a diverse group of industries. In fact, customers from all over the globe contact us for solutions to aerospace, medical, industrial, and telecommunications applications - to name a few.

To find out more, visit our website!



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CSLT1 Rev. A