

The Fogale nanotech Technology for Accelerator Alignment

10 years experience in innovative solutions and sensors for accelerator alignment

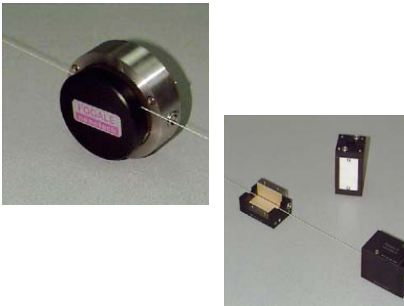
All information on our website : www.fogale.fr

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- High accuracy level measurement with metrological reference : liquid free surface
- Measurement range : 2,5 mm, 5 mm, 10 mm, 15 mm
- Repeatability : 0,5 μm
- Offset drift : $\pm 1 \mu\text{m}/^\circ\text{C}$, $\pm 2 \mu\text{m}/\text{month}$
- Gain drift : $\pm 0,005 \%/^\circ\text{C}$, $\pm 0,01 \%/ \text{month}$
- Resolution : $\pm 0,2 \mu\text{m}$
- Linearity error : $\pm 0,8 \mu\text{m}$
- Bandwidth : 10 Hz

WPS



- High accuracy ecartometry measurement with stretched wire as Metrological reference
- Two type of sensors :
-WPS-1 : measurement along one axis (standard range : 2,5 mm)
-WPS-2D: measurement along two perpendicular axes (standard range : 10 x 10 mm)
- Measurement range : 10x10 mm
- Resolution : 0,1 μm peak to peak at 1 Hz
- Linearity Error : $\pm 4 \mu\text{m}$
- Repeatability : $< 1 \mu\text{m}$
- Offset drift : $\pm 0,5 \mu\text{m}/^\circ\text{C}$, $\pm 0,4 \mu\text{m}/\text{month}$
- Gain drift : $\pm 0,005 \%/^\circ\text{C}$, $\pm 0,01 \%/ \text{month}$
- Bandwidth : 10 Hz

TMS



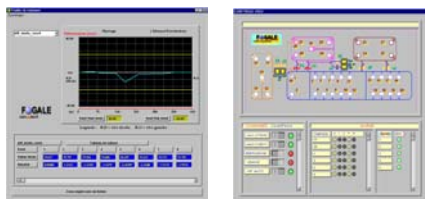
- Tilt and acceleration measurement along two horizontal axes with local vertical metrological reference
- Insensitive to magnetic fields and radiations
- Measurement range : ± 10 mradian
- Repeatability : 10^{-6} radian
- Linearity Error : $\pm 4 \mu\text{m}$
- Bandwidth : from 0 up to 100 Hz

DOMS & Extensometer



- High accuracy sensor for dimensional measurement
- Measurement range : from 1 to 10 mm
- Repeatability 10^{-4} of measurement range
- Thermal drift : $< 0,01 \%$ of measurement range per $^\circ\text{C}$
- Operation in severe environment
- Bandwidth : 10 KHz

MSM



- Monitors all types of measurements carried out with FOGALE nanotech instruments or other open-ended software
- Possibility of development of new functionalities for particular applications
- Compatible with all types of PC under Windows NT or Windows 2000
- Possible telesurvey (customer - supplier) with modem
- Module for 3D Visualization (option)
- Correcting module of moon/earth deformation interaction (option)

RIA



- Rack for sensors power supply and interface with PC (can be used with all sensors)
- Two versions available :
-RIA-8 μP : version with microcontroller-card (interface with PC)
-RIA-8 μP I/O : version with input/output extension card
- 16 measurement channels, available in 19" rack or watertight housing and possibility to connect up to 63 racks together
- Data acquisition : 16 bits convector(20 KHz acquisition frequency)
- Interfaces : serial link RS422/RS232