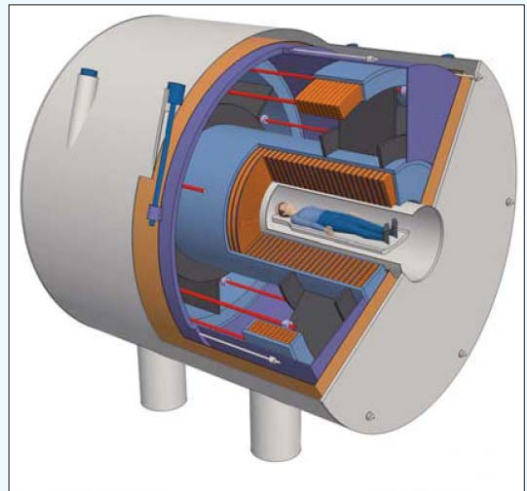


GAP SENSORS FOR MRI APPLICATIONS

The 11.7T Whole Body MRI - The Iseult project under development at CEA-Saclay, in collaboration with Siemens Healthcare and Alstom Magnets and Superconductors, is scheduled for commissioning in 2012.

Philtec's fiber optic sensors are playing a vital role in a prototype which is very important for assessing the design. Displacements of many items inside the cryogenic system are being measured successfully to sub-micron level resolution.

CEA-Saclay and Siemens Healthcare, in collaborating their research activities for the 11.7T MRI, have purchased Philtec sensor systems for the following applications:



CEA-SACLAY Prototype R0: To apply a mechanical Von Mises stress equivalent to that of Iseult.
Measure ± 2 mm range displacement of superconductor

- Liquid helium @ 1.8K
- High Magnetic Field 11.7T
- Pressure 15 mbar
- 3 x Philtec model RC170 with 6 m length FO cables

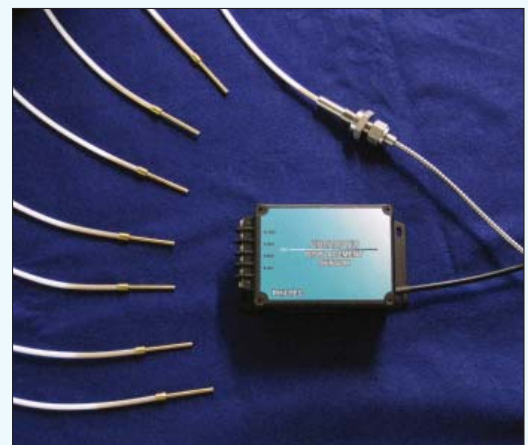
CEA-SACLAY Prototype Q0: Model the mechanical behaviour of the double pancake assembly stacks preloaded inside the helium vessel.

Measure ± 2 mm range displacement of superconductor

- Gaseous helium @ 6 K to 300 K
- No Magnetic Field
- Ambient Pressure
- 12 x Philtec model RC100 with 6 m length FO cables

SIEMENS: Measure ± 2 mm range displacement of the Magnet Structural Elements

- Liquid Helium @ 1.8K
- High Magnetic Field 11.7 T
- Pressure 15 mbar
- 21 x Philtec model RC100 with 8.3 m length FO cables



Philtec is a world-wide leading supplier of fiber optic displacement sensor systems for operation in very extreme environments, including:

- High Magnetic Field
- High Voltage
- High Pressure
- High/Low Temperatures
- Immersion In Cryo Fluids

PHILTEC

www.philtec.com

Fiber optic Sensors for the Measurement of Distance, Displacement and Vibration