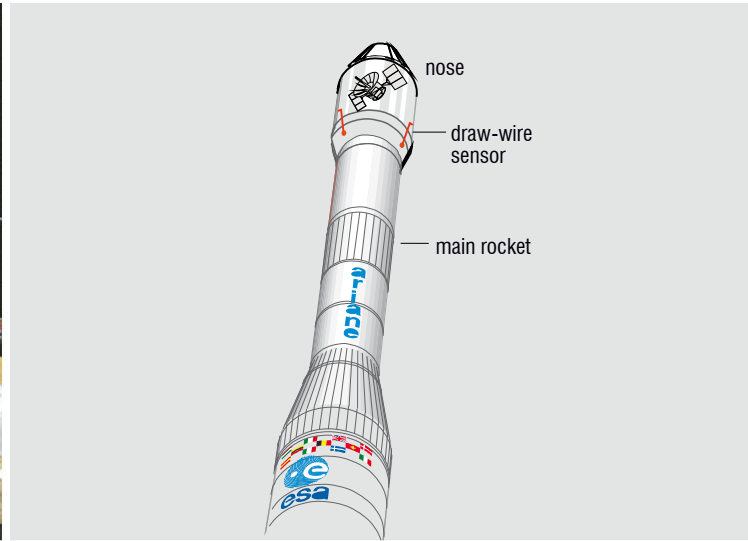
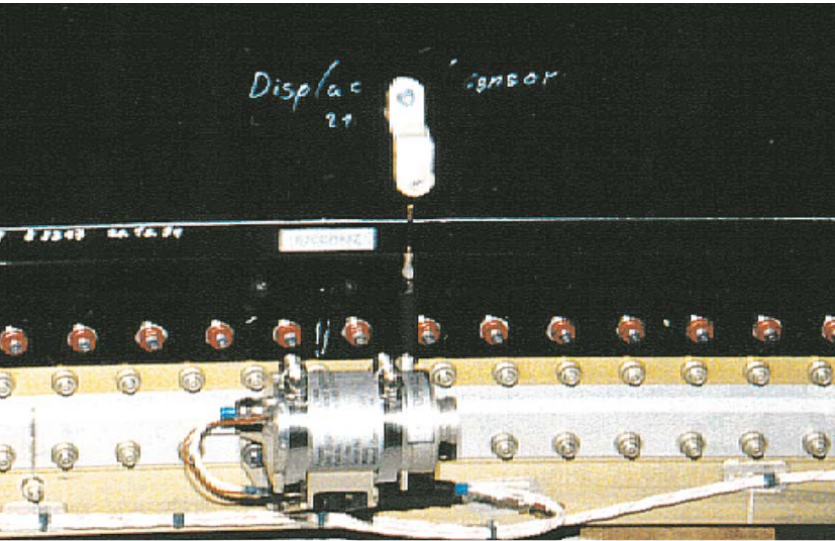


A043

Draw-wire sensors wireSENSOR



Release of satellites into space

Pic: Daimler Benz Aerospace Dornier GmbH, Friedrichshafen

When launching satellites into space, the nose cone section of the main rocket is fired using spring assemblies. Due to the tilted nose, synchronised linear movements are of vital importance in order to prevent the satellites from being damaged.

The sequence of movements is monitored by three draw-wire displacement sensors. The measuring wire is attached to the nose cone section. At the end of the movement range, the wire breaks at a rated breaking point connection. After the measurement has been carried out and the wire has broken, it is retracted which prevents damage to the satellite.

Technical details

- Measuring range: 500mm
- Resolution: 0,1 %

Ambient conditions

- Temperature: 60°C to -250 °C
- Medium: vacuum in space
- Interference fields: high acceleration electromagnetic fields

Measurement system

- WDS-500-MP-P-SPL
- Customised draw-wire displacement sensor

Reasons for choosing the system

- High linearity
- Compact design with large measuring range
- Reliability