

Application Story

Checks for Distortion and Axle Bending

The Challenge

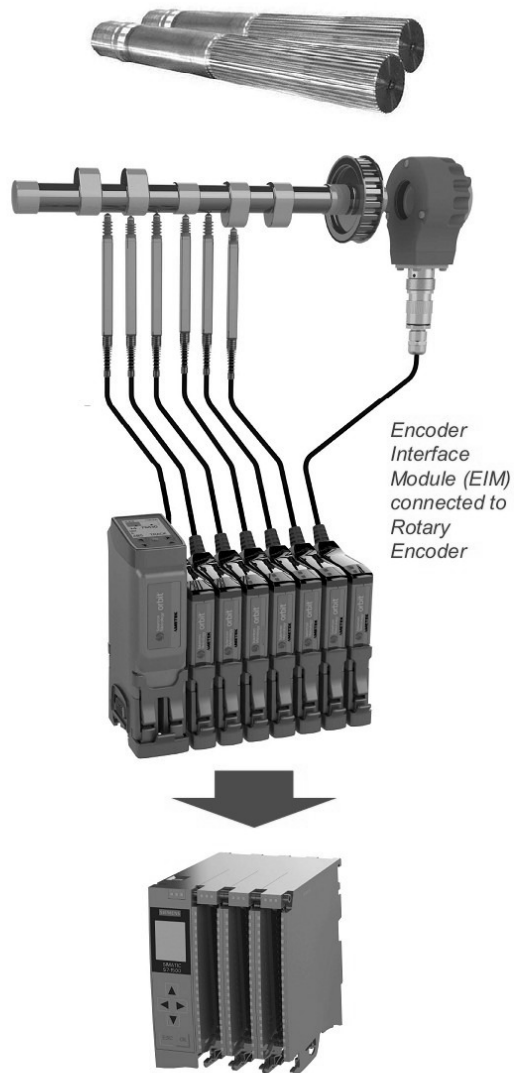
In the automotive industry, rods and transmission components must sometimes be aligned or straightened, as they have not met specifications after being manufactured. These machines, called alignment or distortion machines, require high precision measurement components with quick feedback. These rods could be bent just a fraction of a degree.



The Solution

Solartron Metrology offers precise, rugged sensors that fit the needs for alignment and distortion machines, as well outputs that provide swift feedback into PCs or PLCs.

- **High Resolution:** Solartron LVDTs offer resolution up to 0.01 micron, showing the slightest change in distance that Linear Encoders cannot provide.
- **Rugged Build:** Probe designs are tested to many millions of cycles with shock side loads to ensure bearings maintain their excellent repeatability.
- **Optional IP 68 sealing:** Any standard Solartron Probe can be sealed and tested to IP 68 at the factory
- **Customization:** Elements such as special length cables, inline signal conditioning modules, or tips can be added.
- **Outputs:** Solartron's modular Orbit® network enables multiple, synchronized readings into a PC or PLC
- **Connect to Rotary Encoders** The Orbit® network allows for 3rd party inputs. A Rotary Encoder could connect via an Encoder Interface Module, thus capturing rotational changes even as distance is measured.
- **Single Channel Options:** For simple, single channel options, the G-Type probe with DC and 4-20mA outputs are also available, as well as Orbit ACS.



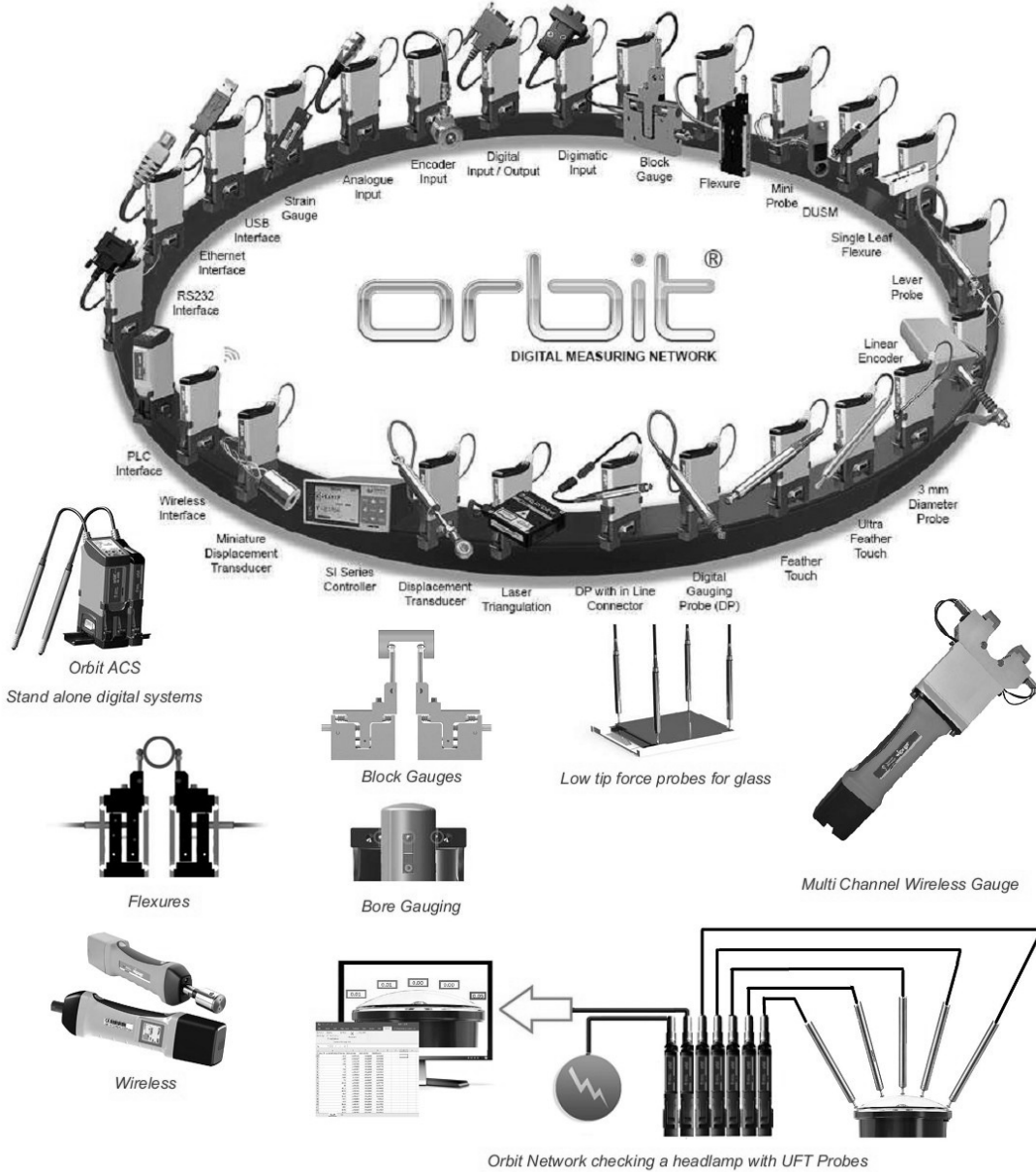
The Solartron G-Type Probe offers built in signal conditioning with DC or 4-20mA output for single channel readings

AMETEK
ULTRA PRECISION TECHNOLOGIES

Solartron Protocol Interface Module connecting Orbit Probes and a Rotary Encoder to PLC.

Orbit® – The Total Measurement System from Solartron Metrology

The Solartron Orbit® Digital Measurement System, provides a limitless set of measuring system solutions, with numerous different interfaces to computers and PLC's.



orbit®
DIGITAL MEASURING NETWORK

Orbit ACS
Stand alone digital systems

Block Gauges

Low tip force probes for glass

Flexures

Bore Gauging

Multi Channel Wireless Gauge

Wireless

Orbit Network checking a headlamp with UFT Probes