



## **Application Story**

**Process Automation** 

# In-Machine Gauging and Detection Products



Photos and contents from http://www.detector-france.com/en/

## Precision. Quality. Reliability





## The Product

The robustness of the LVDT technology is well known in the industry world.

Moreover Feather Touch Probes are ideal for the gauging of high precision components. Long life bearings ensure that the performance of the probes are maintained through millions of cycles in industries producing high volumes of components on short cycle times.

Range: 2 mm – Accuracy: 1μm – Repeatability : 0.15μm –

Resolution: Below 0.015 μm

## The Challenge

Embedded measurement tools for in-process applications is a growing demand on the market. When a part is being milled or drilled, stopping the process for verification or controlling post process the part is a lost of time. We must keep in mind that cycles time for production is essential.

Controlling a dimension during the operation permits to the production to do faster, better and smarter. The harsh environment of such applications disintegrate very quickly the measurement tools and the probes connected.





Our OEM must find a way to enclose probes in a highly protected fixture. This embedded solution will guaranty a very high accuracy combined with a considerable robustness for one of the most heavy duty in the industry.

The adaptability of the device will be merged in the Computed Numerical Control world as the probes, the machine tools and the CNC will operate synchronically like one entire smart system.





## **The Solution**

The AT Series is associated in each critical measurements for in process solution. The specifications of each machine tools will be addressed with a different gauging fixtures. Lengths or diameters, multiple or not, our materials are specifically designed for harsh machining environment with reinforced cable, bearings, etc...



The probes combined with a smart electronic will analyse the machine tools, its behaviour and the quality of the production parts instantaneously. Those processes include a tool quality monitoring with maintenance / changing prevention. Only one device could avoid thousands and thousands expenses, in downtime or tools spares / repairs.





## Orbit® 3 – The Total Measurement System from Solartron Metrology

The Solartron Orbit® 3 Digital Measurement System, in conjunction with Solartron's wide range of transducers, including both contact and non-contact linear measuring transducers (gauging probes), specialist transducers and third party transducer interfaces, provides a limitless set of measuring system solutions, with numerous different interfaces to computers and PLC's, making Orbit® 3 completely flexible.

## Supports all Solartron Sensors



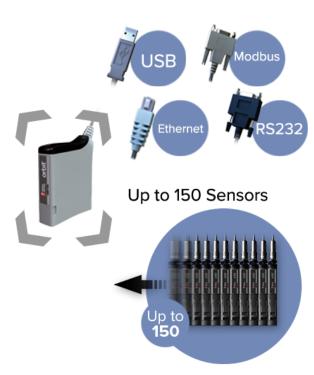
Interface to various sensors and readouts







### Interface via USB, RS232, Ethernet and Modbus Output







### SCIGATE AUTOMATION (S) PTE LTD

No.1 Bukit Batok Street 22 #01-01 Singapore 659592 **Tel: (65) 6561 0488**Email: sales@scigate.com.sg

Fax: (65) 6562 0588

Web: www.scigate.com.sg

Business Hours: Monday - Friday 8.30am - 6.15pm

#### United Kingdom - Head Office

Solartron Metrology Steyning Way Bognor Regis West Sussex PO22 9ST Tel: +44 (0) 1243 833333

Tel: +44 (0) 1243 833333 Fax: +44 (0) 1243 8333322

Sales.solartronmetrology@ametek.com

#### France

Solartron Metrology Rond-point de l'Espine des Champs Buroplus - Bat. D Elancourt 78990 Tel: +33 (0)1 30 68 89 50 Fax: +33 (0)1 30 68 89 59 france.solartronmetrology@ametek.com

### Germany

Ametek GmbH Solartron Metrology Division Rudolf-Diesel-Strasse 16 40670 Meerbusch Tel: +49 (0) 2159 9136 500 Fax: +49 (0) 2159 9136 505 vertrieb.solartron@ametek.de

#### Brazil

Ametek do Brasil, Ltda Rod. Eng Ermenio de Oliveira Penteado, Km 57, SP75 Bairro Tombadouro 13337-300, Indaiatuba, SP, Brazil Tel: +55 19 2107 4126

#### India

Ametek Instruments India Private Limited 1st Floor, Left Wing Prestige Featherlite Tech Park Plot #148, EPIP II Phase Whitefield, Bengaluru 560 066 Karnataka, India Tel: +91 80 6782 3200 Fax: +91 80 6782 3232

#### USA

Solartron Metrology USA Central Sales Office 915 N.New Hope Road, Suite C Gastonia, NC 28054 Tel: +1 800 873 5838 Fax: +1 704 868 8466 usasales.solartronmetrology@ametek.com

#### China

AMETEK Commercial Enterprise (Shanghai) Co. Ltd No. 155 Puhui Road Ju Ting Economic Development Zone Shanghai 200131, China Tel: +86 21 5763 2509 Fax: +86 21 5866 0969 Ext. 261/262 china.solartronmetrology@ametek.com



Offices worldwide

Agent and distributor details available at www.solartronmetrology.com



Q09540

Solartron pursues a policy of continuous development. Specifications in this document may therefore be changed without notice

