LVDT-Based Gaging Probes Offer Highly Precise Dimensional Measurement

Macro Sensors introduces a new line of LVDT-based dimensional gaging probes that provide highly accurate and precise measurement of dimensions in a wide variety of quality control, inspection equipment and industrial metrology applications including online parts inspection, servo-loop positioning systems, and manufacturing process control. Available in four models including full bridge, half bridge, pneumatic and soft touch, the BB Series LVDT-Based Dimensional Gaging Probes can be used in automotive, medical, and aerospace manufacture to control the precise dimensional parameters of their products.

These AC-operated LVDT gage heads can measure the position of a target surface, with an unusually high degree of accuracy. Complete systems for “go/no/go” inspection of complex mechanical parts can be assembled using several gage heads mounted in suitable fixtures.

The BB Series LVDT Dimensional Gaging Probes combine a special AC-LVDT with a linear ball bearing assembly to reduce radial play and core skewing, resulting in exceptional repeatability of 0.000006 inch (0.15 microns). The use of an LVDT for probe shaft displacement sensing eliminates any additional transducer errors due to friction, stiction or mechanical hysteresis. The BB Series also offer unusually long life of 2 x 108 cycles. Other notable features of these spring-loaded LVDTs include:

• User-adjustable pretravel
• Reduced susceptibility to temperature changes
• Positive stops prevent mechanical damage to the probe from repeated overstroking

• Rubber bellows covering the probe shaft prevent the entrance of contaminants into the bearing.

The BB units are available in three standard ranges: +0.020” (+.5.0 mm), +0.100” (+2.5 mm) and +0.200” (+5.0mm). Macro Sensors manufactures a full line of support electronics for these spring-loaded LVDTS including OEM modules, DIN-rail mount line-powered and DC-operated signal conditioners and digital display and control instruments. By combining the BB Series position sensors with an EAZY-CAL™ Mini-Module LVDT Signal Conditioner, Macro Sensors offers a fully calibrated and complete linear position gaging system ready for immediate operation.

For more information, please refer to the web site at http://www.macrosensors.com/BB_315_375.html [1] or contact sales at postionsensors@macrosensors.com [2].
For more information on AST products and technology, visit the AST website at www.astsensors.com [3]**.**

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