



DP7: High Performance Long Styli Solid State CNC Touch Probe

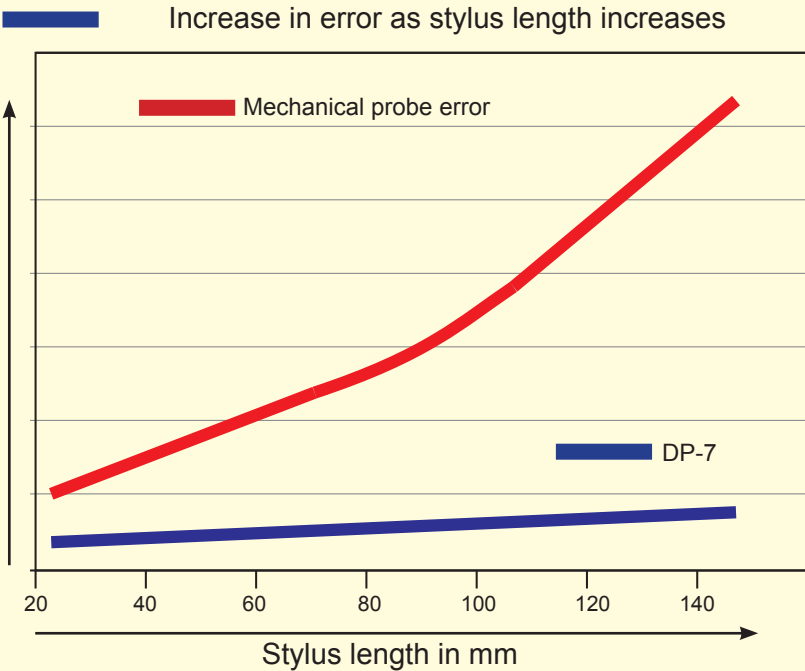


Specifically designed for long styli probing and digitizing applications, the DP-7 is a high-accuracy digital touch probe that both automates CNC job set-up and can copy complex 3D part geometries using a CNC milling machine or machining center. The DP-7 drastically improves digitizing and measuring accuracy by eliminating the sources of error that affect conductive and mechanical switch type touch probes. Using CENTROID's new sensing technology the DP-7 is neither a conductive or mechanical switch type probe and therefore is not affected by the limitations of those technologies.

DP-7 Advancements

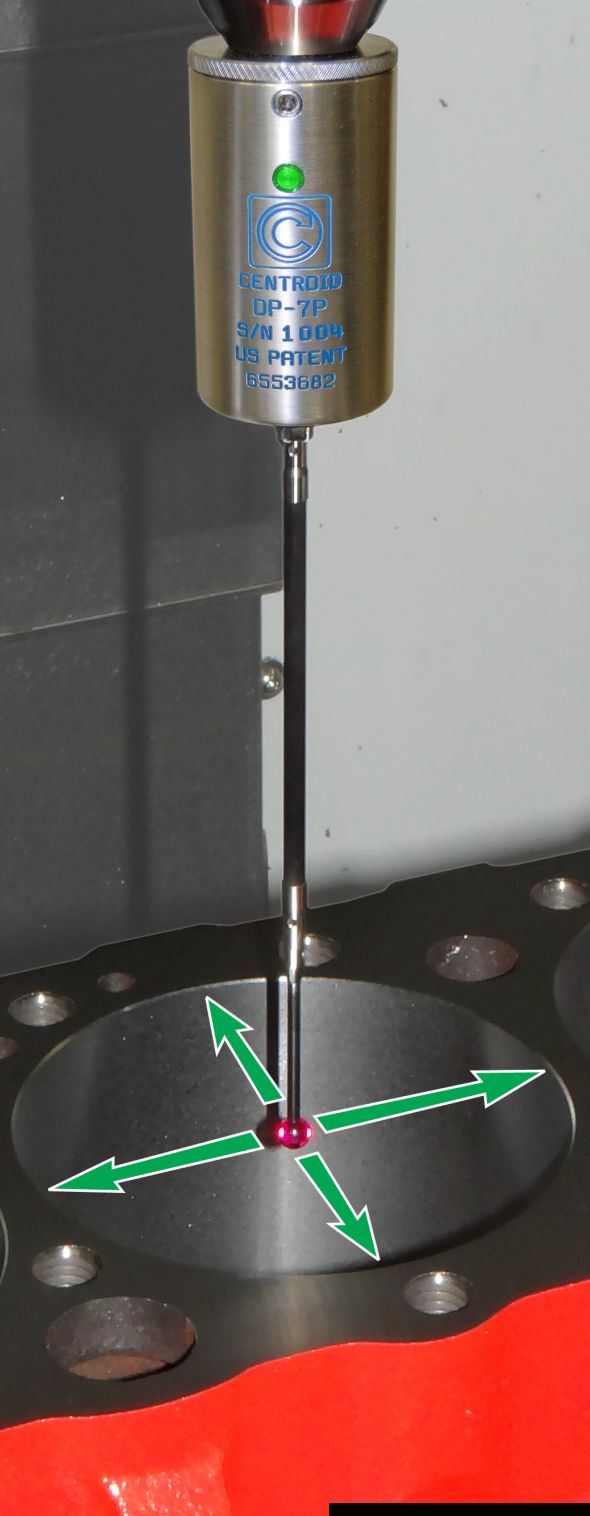
- Works reliably with difficult to probe surfaces: ceramics, plastics, clean and dirty, raw castings, painted, rusted metal or black with carbon
- Breakthrough sensing technology
- Highly accurate long stylus operation
- Far greater levels of accuracy than mechanical probes
- Extremely repeatable sensing technology
- Excellent 3D performance while maintaining very high accuracy
- Long life with advanced solid state technology
- Reliable robust construction, avoids mechanical mechanism failures
- Resistance to shock and vibration
- Probe unidirectional (2 sigma) repeatability: .00004" (1 um)
- Uniform triggering in all axes
- Seamless CNC control integration, w/ digitizing & probing cycles menus
- Advanced probing macros for custom automatic probing
- Works with both CNC10* & new CNC11 based CENTROID CNC controls

CENTROID DP-7 vs Mechanical Probes



The DP-7 outperforms mechanical probes with ten times better accuracy while using a 140 mm stylus. Even with a short 40 mm stylus the DP-7 has twice the performance of a mechanical probe.

As the stylus length increases a mechanical probe produces more and more error due to what is called "lobing", where measurements vary depending on direction of probe contact. The DP-7's solid state sensing technology eliminates lobing to produce accurate results using a wide range of stylus lengths and probing directions. With its robust sensing technology and greater accuracy and repeatability the DP-7 produces better digitizing data and consistent job setups day in and day out.



DP-7 uses and advantages

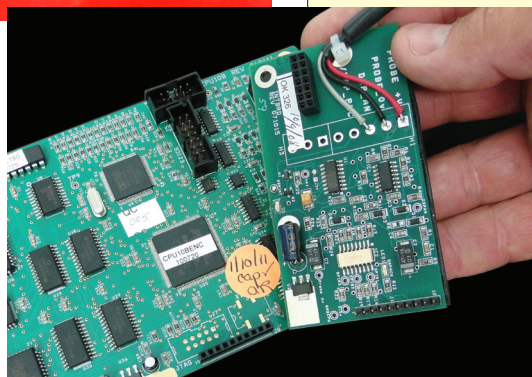
- Copy and reproduce complex 3D parts from originals
- Automatic Job setup, Auto Work Coordinate System settings
- Eliminate the need for expensive indicators and fixtures
- Eliminate manual setting errors
- Increase throughput on the machine
- Reduce rework and scrap, shorten lead times
- Measure parts before they are removed from the machine
- Enhance your capabilities and take on more work
- Increase machine tool automation and reduce human error
- Automatic Vise/Fixture setup, no alignment needed
- Works in conjunction with Automatic Coordinate System Rotation
- Basic part inspection, finds diameters, locations, angles & features
- Automatic part feature location and setup, great for repairs
- Much faster than setting up parts manually
- Considerably more accurate and repeatable than manual part setup
- No 3rd party software or external PC required
- No batteries, no lighting restrictions, no RF crosstalk, reliable easy plug-in setup

Specifications

Probing directions	X +/- , Y +/- , Z -
Unidirectional repeatability (2 sigma)	0.00004" (1 uM)
Probe deflection force (X,Y)	5.5 ounce w/ 43mm stylus
Probe deflection force (Z)	36 ounce minimum
Probe body diameter and length	D = 1.3" (33mm) , L = 2.5" (63.5mm)
Mounting shank diameter	0.5" (12.7mm)
Stylus thread mount	M3
Over travel limit angle (X,Y)	10 degrees from vertical
Over travel limit (Z-)	0.150 inch (3.8mm) maximum
U.S Patent #	6553682

CNC System requirements

CNC11 based systems	MPU11 plug and play w/ software version 3.03+
CNC10 based systems*	Yes! Backward compatible with older controls. Requires CPU10B and upgrade kit and v2.70+ software. Call tech support for more info.



*CNC10 based CPU10B Upgrade kit.

Distributor:



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