Lever Probe

The Solartron Digital Lever Probe is ideally suited to applications where the use of axial measuring probes is not possible, and where a low tip force and a high number of probing points are required.

> Measuring Range 0.5 mm
> Resolution Programmable to < 0.05 µm
> Tip Forces down to 5 g
> Excellent Repeatability
> Up to 3906 Readings/Second
> Industry Standard Styli
> Compact Size
> Direct Reading in mm/inch

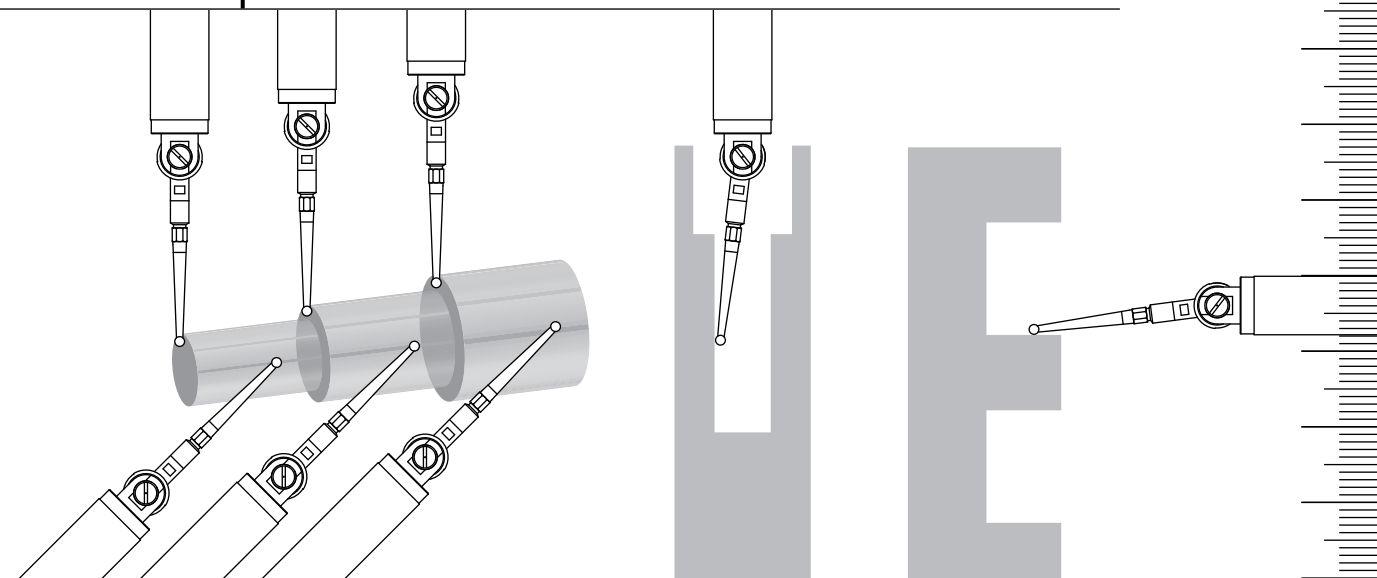
Solartron's Digital Lever Probe has been conceived for the precision measurement market. Its simple design and exceptional reliability result in a reduced cost of ownership without any reduction in performance.

Due to its cylindrical housing geometry, the Lever Probe can be mounted in any attitude relative to the intended target. It can be mounted via the use of 8 mm peg or industry standard dovetail mounting blocks, or clamped directly into a 9.52 mm mounting hole.

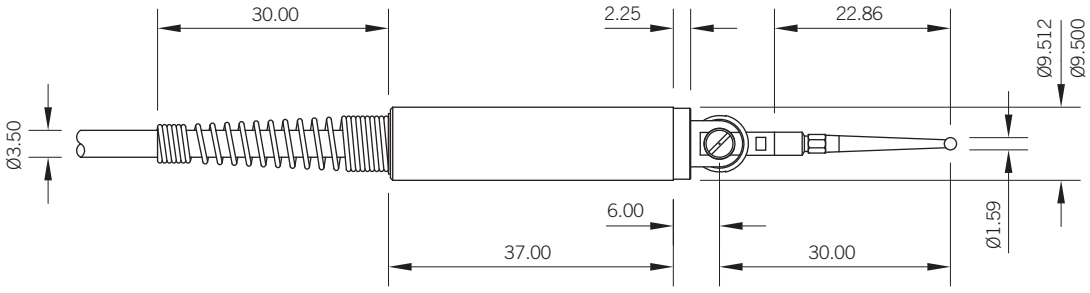
With a measurement range of 500 µm and repeatability below 0.15 µm, the Digital Lever Probe can be easily integrated into measurement systems using Solartron's Orbit Network.

Product type: DL/0.5/S

Measurement	
Measurement Range (mm)	**0.5**
Mechanical Travel (mm)	0.6
Start of Measuring Range	20 µm to 30 µm from limit stop
Stylus Adjustment	180˚
Accuracy (nominal to axis of stylus)	±0.1 µm ± D x 0.08% (D= distance from setting master)
Repeatability (µm)	< 0.15
Hysteresis (µm)	< 0.25
Resolution (µm)	User selectable to < 0.01
Measurement Bandwidth	Programmable from 6 Hz to 460 Hz
Reading Speed	Up tp 3906 readings/second (Dynamic Measurement Mode)
Tip Force (N ±20%)	Options for 0.05 to 0.3 in 0.05N increments
Temperature Coefficient (µm/˚C)	0.1
Life (dependant on application)	Better than 5 million measuring cycles
Mechanical	
Mass (g)	< 15
Material of Frame	Stainless Steel
Mounting	Direct clamping into 9.52 mm hole Mounting blocks for 8 mm peg Industry standard dovetail available as accessories
Stylus (available in ball diameters) (mm)	2.54, 1.59, 0.79, 0.39 Mounting thread 1.72 UNF
Environment	
Storage Temperature (˚C)	-20 to +85
Operating Temperature (˚C)	0 to +60
Shock	To maintain best performance the Lever Probe should be protected from shock
Electrical Interface	
Energising Voltage	5 V ±0.25 VDC (Powered from Orbit Network)
Energising Current	55 mA at 5 VDC (Powered by Orbit Network)
Interface	Orbit Network



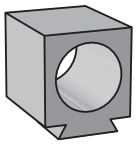
48 Dimensions (mm)



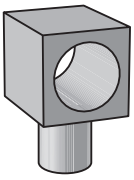
Accessories

Mounting blocks

The Digital Lever Probe can be clamped directly into a 9.52 mm mounting hole. Alternatively the following mounting blocks are available;



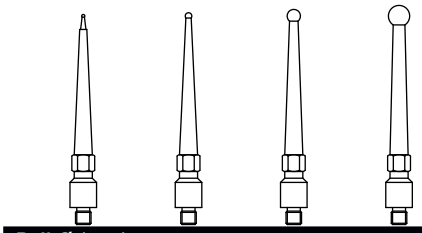
Industry standard dovetail mounting block



8 mm peg mounting block

Ball tipped styli

A range of styli are available with different ball diameters



Ball Ø (mm)			
0.38	0.79	1.59	2.54

Mounting threads are all 1-75 UNF