

Orbit[®] Digital Short Probes



Space Saving

Description

Solartron Metrology's Digital Probe range has been expanded with several new probes that offer a significant decrease in case length for the same measurement range while still giving the same performance. Key features are:

- Excellent measurement repeatability better than 0.15 μm
- Resolution better than 0.1 μm
- Use proven ball bearing sleeve technology for repeatability and long life
- Ideal for applications where space is an issue
- Supports all Orbit features

Precision. Quality. Reliability

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Technical Specifications

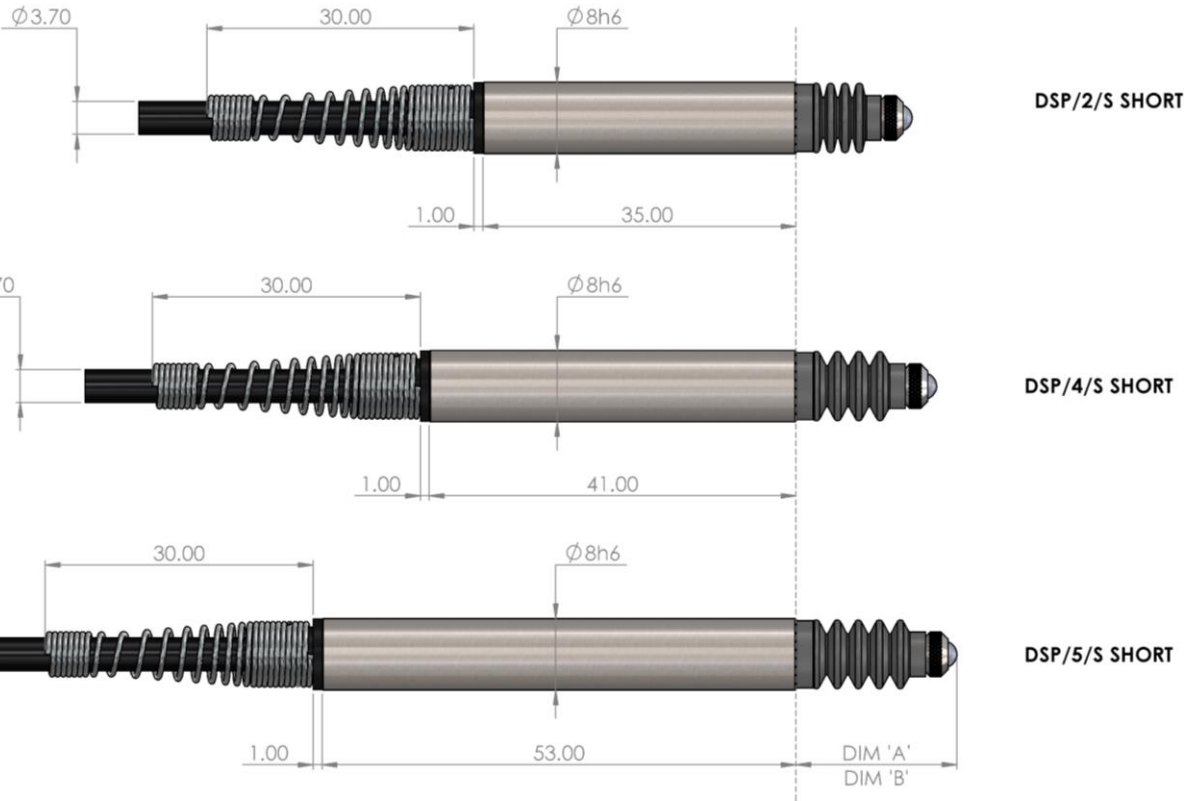
Products			
Spring Push Axial Cable	DSP/2/S	DSP/4/S	DSP/5/S
Measurement Performance			
Measurement Range (mm)	2	4	5
Accuracy (% Reading) (Note 1)	0.05	0.05	0.05
Repeatability (µm)	0.15	0.15	0.15
Resolution (µm)	< 0.1	< 0.1	< 0.1
Pre Travel (mm)	0.15	0.15	0.15
Post Travel (mm)	0.35	0.85	0.85
Tip Force (N) ±20% (Note 2) Spring Push	0.70	0.56	0.70
Temperature Coefficient %FS/°C	0.01	0.01	0.01
Environmental			
Probe Sealing	IP65 with gaiter, IP50 without gaiter		
Probe Operating Temperature °C	-5 to +80 with gaiter, -10 to +80 without gaiter		
Probe Life (operating cycles)	>100 million with no side load, >10 million in most applications		
Probe and Electronics Storage Temperature °C	-20 to +80		
Electronics Sealing	IP43		
Electronics Operating Temperature °C	0 to 60		
EMC Emissions	EN61000-6-3		
EMC Susceptibility	EN61000-6-2		
Material			
Probe Body	Stainless Steel		
Probe Tip (options)	Nylon, Ruby, Silicon Nitride, Tungstan Carbide		
Gaiter (Note 3)	Fluoroelastomer or Silicon		
Cable (options)	PUR (nylon braided, steel braided or armoured cable options)		
Interfaces			
Orbit3 Electronics	Fully compatible with ALL Solartron Orbit Controllers and Measurement Modes		
Orbit3 Interface Options (PC)	USB, RS232, Ethernet		
Orbit3 Interface Options (PLC)	Profinet®, Ethernet/IP®, Modbus TCP, Modbus RTU, Ethercat®		
Orbit3 Reading Rate	3096 readings per second		
Orbit3 Electronics bandwidth (per channel) (Hz)	460, 230, 115, 58, 29, 14, 7, 4 (user programmable)		

Note 1: Accuracy 0.1 µm or % Measurement whichever greater

Note 2: Tip force in middle of measurement range

Note 3: Different gaiter materials available for specific applications - fluorolastomer standard

Dimensions



DIGITAL PROBE	DSP/2/S	DSP/4/S	DSP/5/S
FULLY EXTENDED DIM 'A' (mm)	13.00	15.70	18.00
FULLY RETRACTED DIM 'B' (mm)	10.50	10.70	12.00

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Distributors

Solartron have 30+ distributors worldwide, see website www.solartronmetrology.com for your nearest distributor

Precision Driven...

In the laboratory, on the shop floor or in the field, Solartron Metrology's products provide precise linear measurements for quality control, test and measurement and machine control. Solartron Metrology is a world leader in the innovation, design and manufacture of precision digital and analogue dimensional LVDT gauging probes, displacement sensors, optical linear encoders and associated instrumentation.



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

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