

Technical Specification

Standard Spring Push and Pneumatic, Feather Touch and In Line Connector

Products (Dia 8h6)

Spring Push Axial Cable	DP/0.5/S	DP/1/S	DP/2/S	DP/5/S	DP/10/S	DP/20/S	DP10/2S
Spring Push Radial Cable			DPR/2/S	DPR/5/S	DPR/10/S	DPR/20/S	DPR10/2/S
Spring Push Axial Cable Feather Touch			DT/2/S	DT/5/S	DT/10/S	DT/20/S	DT10/2S
Spring Push Radial Cable Feather Touch			DTR/2/S	DTR/5/S	DTR/10/S	DTR/20/S	DTR10/2S
Pneumatic Axial Cable			DP/2/P	DP/5/P	DP/10/P	DP/20/P	DP10/2S
Pneumatic Radial Cable			DPR/2/P	DPR/5/P	DPR/10/P	DPR/20/P	DPR10/2/P
Pneumatic Axial Cable Feather Touch			DT/2/P	DT/5/P	DT/10/P	DT/20/P	DT10/2S
Pneumatic Radial Cable Feather Touch			DTR/2/P	DTR/5/P	DTR/10/P	DTR/20/P	DTR10/2S

Measurement Performance

Measurement Range (mm)	0.5	1	2	5	10	20	2
Accuracy (% of Reading) (Note 1)	0.05	0.05	0.05	0.05	0.06	0.7	0.05
Accuracy (% of Reading) (Note 1) - with In line Connector	N/A	0.2	0.2	0.15	0.15	0.15	0.2
Repeatability (worst case) μ m (Note 2)	0.1	0.15	0.15	0.15	0.15	0.15	0.15
Repeatability (typical) μ m (Note 3)	0.05	0.05	0.05	0.05	0.07	0.07	0.05
Resolution (μ m)	0.01	0.01	0.01	0.05	0.05	0.1	0.01
Pre Travel (mm)	0.03	0.15	0.15	0.15	0.15	0.15	0.15
Post Travel (mm)	0.05	0.35	0.85	0.85	0.85	0.85	8.85
Tip Force (N) at Middle of Range \pm 20%							
Spring Push	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Spring Push Feather Touch	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Pneumatic at 0.4 bar	N/A	N/A	0.7	0.7	0.7	0.7	0.7
Pneumatic at 1 bar	N/A	N/A	2.6	2.6	2.6	2.6	2.6
Pneumatic Feather Touch \pm 30% at 0.3 bar	N/A	N/A	0.18	0.18	0.18	0.18	0.18
Pneumatic Feather Touch \pm 30% at 1 bar	N/A	N/A	1.1	1.1	1.1	1.1	1.1
Pneumatic Jet	N/A	N/A	0.85	0.85	0.85	0.85	0.85
Temperature Coefficient %FS/ $^{\circ}$ C	0.01	0.01	0.01	0.01	0.01	0.01	0.01

Environmental

Sealing for Probe	IP65 with gaiter or IP50 without gaiter IP43 for module and TCON
Sealing for Probe Interface Electronics	
Storage Temperature ($^{\circ}$ C)	-20 to +80
Probe Operating Temperature with Gaiter ($^{\circ}$ C)	+5 to +80
Probe Operating Temperature without Gaiter ($^{\circ}$ C)	-10 to +80
Electronics Operating Temperature ($^{\circ}$ C)	0 to 60
EMC Emissions	EN61000-6-3
EMC Immunity	EN61000-6-2
Probe Life	100 million cycles (no side load), > 10 million cycles in most applications

Material

Probe Body	Stainless Steel Nylon, Ruby, Silicon Nitride, Tungsten Carbide Fluoroelastomer or Silicon PUR ABS
Probe Tip (options)	
Gaiter (Note 6)	
Cable	
Electronics Module	

Electronics Interface (Orbit@3)

Orbit@3 Interface Options	USB, Ethernet, RS232 3906 readings per second 460, 230, 115, 58, 29, 14, 7, 4 5 \pm 0.25 VDC @ 0.06A typical
Reading Rate	
Bandwidth of Electronics (Hz) user selectable	
Power	

Note 1: Accuracy 0.1 μ m or % reading whichever greater

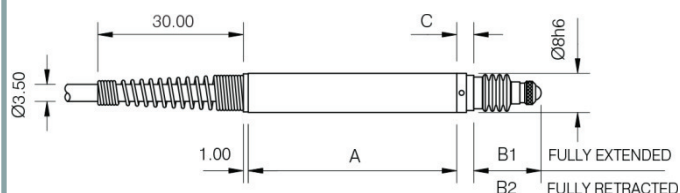
Note 2: Repeated operation against a carbide target with side load applied to the bearing using max-min

Note 3: Repeated operation against a carbide target standard deviation from average (68%)

Note 6: Different gaiter materials available for specific applications - Fluoroelastomer standard option

Standard Spring Push DP/S

	DP/2/S	DP10/2/S	DP/5/S	DP/10/S	DP/20/S
A	47.50	75.00	66.40	90.50	127.00
C	2.00	4.00	2.00	2.00	3.00
B1	13.90	24.40	17.40	25.40	44.90
B2	10.90	14.40	11.40	14.40	23.90



A R/A adapter kit is available for axial probes where space is limited – see website

For R/A version A is -3 mm

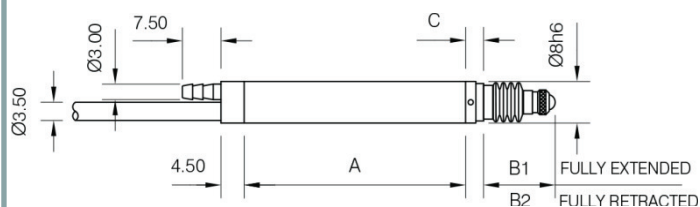
Feather Touch Spring Push DT/S

	DT/2/S	DT/5/S	DT/10/S	DT/20/S
A	47.50	66.40	90.50	127.00
C	2.00	2.00	2.00	3.00
B1	13.90	17.40	25.40	33.90
B2	10.90	11.40	14.40	12.90

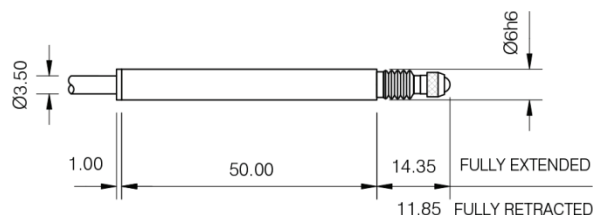


Vacuum Retract (DP/V)

	DP/2/V	DP/5/V	DP/10/V	DP/20/V
A	46.00	65.00	96.00	127.00
C	2.00	2.00	2.00	3.00
B1	13.90	17.40	25.40	44.90
B2	10.90	11.40	14.40	23.90



6mm dia body Spring Push (D6P2)



Feather Touch Spring Push DT/S

	DTR/2/S	DTR/5/S	DTR/10/S	DTR/20/S
A	33.50	52.50	76.50	113.50
C	2.00	2.00	2.00	3.00
B1	13.90	17.40	25.40	33.90
B2	10.90	11.40	14.40	12.90

