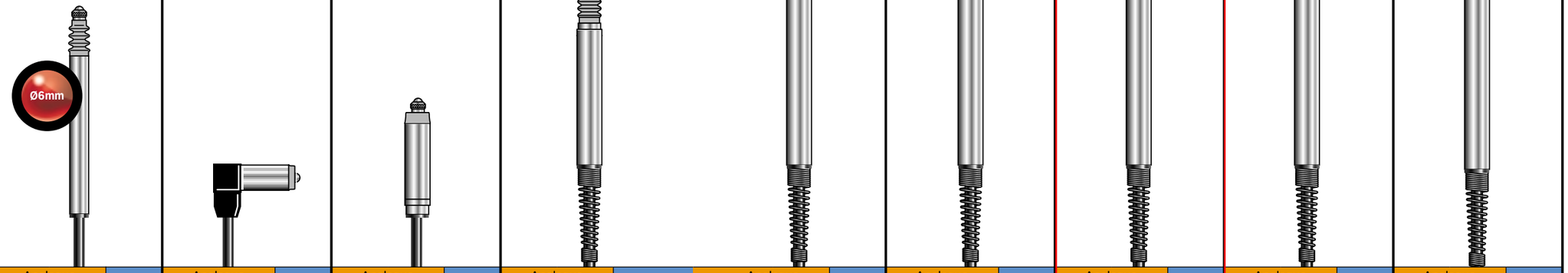
Specification
Spring push

Ø8mm



Product type	Analogue		Digital	Analogue		Digital	Analogue		Digital	Analogue		Digital	Analogue		Digital	Analogue		Digital	Analogue		Digital	Analogue		Digital	Analogue		Digital
	LVDT	H/B		LVDT	H/B		LVDT	H/B		LVDT	H/B		LVDT	H/B		LVDT	H/B		LVDT	H/B		LVDT	H/B		LVDT	H/B	
Axial cable outlet: Standard Spring	A6G/1/S	A6G/1/SH	D6P/2/S	AX/0.25/S	AX/0.25/SH	DP/0.5/S	AX/0.5/S	AX/0.5/SH	DP/1/S	AX/1/S	AX/1/SH	DP/2/S	AX5/1/S	AX5/1/SH	DP10/2/S	AX/1.5/S	AX/1.5/SH	-	AX/2.5/S	AX/2.5/SH	DP/5/S	AX/5/S	AX/5/SH	DP/10/S	AX/10/S	AX/10/SH	DP/20/S
Feather Touch	-	-	-	-	-	-	-	-	-	AT/1/S	AT/1/SH	DT/2/S	-	-	-	AT/1.5/S	AT/1.5/SH	-	AT/2.5/S	AT/2.5/SH	DT/5/S	AT/5/S	AT/5/SH	DT/10/S	AT/10/S	AT/10/SH	DT/20/S
Vacuum	-	-	-	-	-	-	-	-	-	AX/1/V	AX/1/VH	-	-	-	-	AX/1.5V	AX/1.5VH	-	AX/2.5/V	AX/2.5/VH	-	AX/5/V	AX/5/VH	-	AX/10/V	AX/10/VH	-
Radial cable outlet: Standard Spring	-	-	-	-	-	-	-	-	-	AXR/1/S	AXR/1/SH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Feather Touch	-	-	-	-	-	-	-	-	-	ATR/1/S	ATR/1/SH	DTR/2/S	-	-	-	ATR/1.5/S	ATR/1.5/SH	-	ATR/2.5/S	ATR/2.5/SH	DTR/5/S	ATR/5/S	ATR/5/SH	DTR/10/S	ATR/10/S	ATR/10/SH	DTR/20/S
Measurement																											
Measurement Range (mm)	**±1**		**2**	**±0.25**		**0.5**	**±0.5**		**1**	**±1**		**2**	**±1**		**2**	**±1.5**		**-**	**±2.5**		**5**	**±5**		**10**	**±10**		**20**
Accuracy[1] (% of reading or µm)	0.5, 1µm		0.1	0.5, 0.5µm		0.1	0.5, 1µm		0.1	0.5, 1µm		0.1	0.5, 1µm		0.1	0.5, 1.5µm		-	0.5, 2.5µm		0.2	0.5, 5µm		0.2	0.7, 10µm		0.2
Resolution	Analogue: Dependent on electronics												Digital: User selectable to <0.1µm														
Repeatability (µm)	0.15			0.1			0.15			0.15			0.15			0.15		-	0.15			0.15			0.15		
Pre-travel (mm)	0.15			0.03			0.15			0.15			0.15			0.15		-	0.15			0.15			0.15		
Post-travel (mm)	0.35			0.05			0.35			0.35			0.85			0.85		-	0.85			0.85			0.85		
Pre-travel Adjustment range (mm)	None			None			0.5		None	1		None	None			1.5		-	1.5		None	1.5		None	None		
Tip Force: Standard/Vacuum ±20% (N)	0.7 @ mid position			0.7 @ mid position			0.7 @ mid position			0.7 @ mid position			0.7 @ mid position			0.7 @ mid position		-	0.7 @ mid position			0.7 @ mid position			0.7 @ mid position		
Tip Force: Feather Touch ±20% (N)	0.3 @ mid position			0.3 @ mid position			0.3 @ mid position			0.3 @ mid position			0.3 @ mid position			0.3 @ mid position		-	0.3 @ mid position			0.3 @ mid position			0.3 @ mid position		
Temperature Coefficient %FS/°C	0.02			0.03			0.03			0.01			0.01			0.01		-	0.01			0.01			0.01		
Mechanical																											
Body Diameter (mm)	6h6			8h6			8h6			8h6			8h6			8h6		-	8h6			8h6			8h6		
Electrical Interface (Plugged)[2]																											
Sensitivity (mV/V/mm ±5%)	200	73.5	-	200	73.5	-	200	73.5	-	200	73.5	-	200	73.5	-	133	49	-	80	29.4	-	40	14.7	-	20	7.35	-
Energising Current (mA/V±5%)	3	1.2	-	2.2	1.2	-	2.2	1.2	-	1.8	1	-	1.8	1	-	2	1	-	2	1	-	2	1.2	-	1	1.2	-
Electrical Interface (Unplugged)[2]																											
Sensitivity (mV/V/mm ±5%)	269	88	-	262	82	-	262	82	-	210	83	-	210	83	-	150	82	-	150	82	-	105	51	-	33	33	-

Materials

Case:	Stainless Steel
Tip:	Nylon or Tungsten Carbide*
Gaiter[3]:	Viton®
Cable[4]:	PUR

*Other options available

Environmental (Probe Head Only)

Storage Temp (°C):	-40 to +100
Operating Temp[6] with gaiter (°C):	+5 to +80
Operating Temp[6] without gaiter (°C):	-10 to +80
IP rating:	IP65

IP rating not applicable to Feather Touch

Operating Pressure Range

Vacuum operation: 0 to 0.27 Bar absolute

Digital Probe Interface Electronics[5]

Reading Rate:	Up to 3906 readings/second
Bandwidth:	Up to 460Hz dependent on noise performance required
Output:	Serial communication-RS485 signal level (Solartron Orbit Protocol)
Power:	5 ±0.25 VDC @ 0.06A (includes power for probe)
Storage Temp (°C):	-20 to +70
Operating Temp (°C):	0 to +60
IP Rating:	IP43

1 Probe Accuracy
The accuracy of the LVDT and Half Bridge probes is quoted as % of reading or µm, which ever is greater.
The accuracy of the Digital Probe range is quoted as [(resolution) + (accuracy %) x D] where D is the distance from the setting master.
(Please refer to the Glossary for definitions)

2 LVDT and Half Bridge Probe Performance
Accuracy, sensitivity and energising current are valid for the following calibration conditions: LVDT probes calibrated at 3 V, 5 kHz frequency into a 10 kΩ load or 100 kΩ for the unplugged versions. Half Bridge probes calibrated at 3 V, 10 kHz frequency into a 2 kΩ load or 1 kΩ for the unplugged versions. The probes will operate with energising voltages in the range 1 V to 10 V and with frequencies in the range 2 kHz to 20 kHz but the performance is not specified.

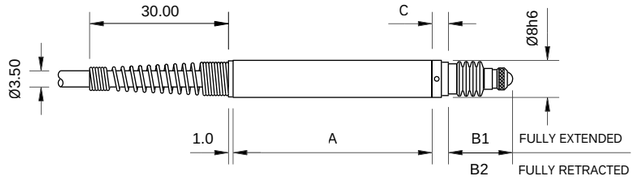
3 Viton is a trademark of DuPont Dow Elastomers.

4 Cables
All probes are supplied with 2 m of PUR cable as standard. Other lengths and options such as nylon braided, metal braided and armoured are available on request.

5 Digital Probe Termination
Digital Probes are terminated with Solartron's Probe Interface Electronics (PIE) module. Please refer to the Orbit Network for details on this module and methods of integration for Digital Probes.

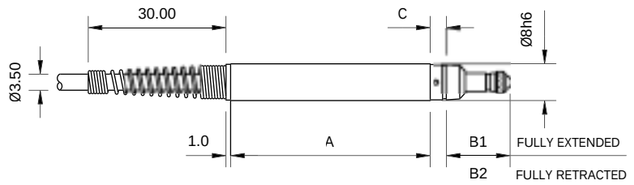
6 Below 0°C environment must be dry

Standard Spring Push (AX/S and DP/S)



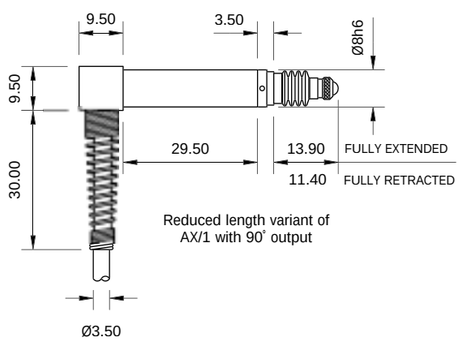
	AX/1/S	DP/2/S	AX/1.5/S	AX5/1/S DP10/2/S	AX/2.5/S	DP/5/S	AX/5/S	DP/10/S	AX/10/S DP/20/S
A	43.00	46.00	58.00	75.00	63.00	65.00	87.00	89.00	127.00
C	3.5	2.00	4.00	4.00	4.00	2.00	4.00	2.00	3.00
B1	13.9	13.9	15.40	25.40	17.40	17.40	25.40	25.40	44.90
B2	11.4	10.9	11.40	14.40	11.40	11.40	14.40	14.40	23.90

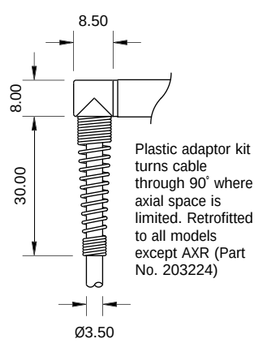
Feather Touch Spring Push (AT/S and DT/S)



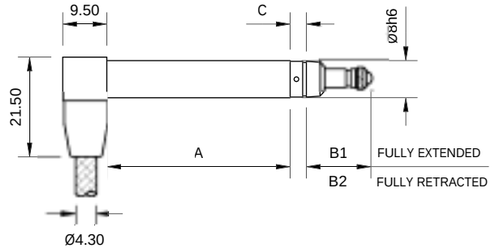
	AT/1/S	DT/2/S	AT/1.5/S	AT/2.5/S	DT/5/S	AT/5/S	DT/10/S	AT/10/S DT/20/S
A	43.00	46.00	58.00	63.00	65.00	87.00	89.00	127.00
C	3.50	2.00	4.00	4.00	2.00	4.00	2.00	3.00
B1	13.90	13.90	15.40	17.40	17.40	25.40	25.40	33.90
B2	11.40	10.90	11.40	11.40	11.40	14.40	14.40	12.90

Right Angle Spring Push (AXR and DPR)





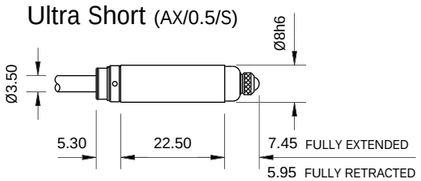
Right Angle Feather Touch Spring Push with braided cable (ATR/S and DTR/S)



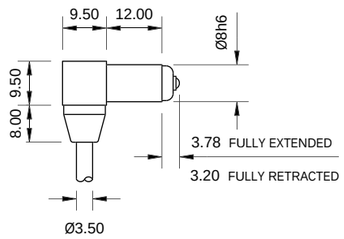
	ATR/1/S	DTR/2/S	ATR/1.5/S	ATR/2.5/S	DTR/5/S	ATR/5/S	DTR/10/S	ATR/10/S DTR/20/S
A	29.50	33.50	44.50	49.50	52.50	73.50	76.50	113.50
C	3.50	2.00	4.00	4.00	2.00	4.00	2.00	3.00
B1	13.90	13.90	15.40	17.40	17.40	25.40	25.40	33.90
B2	11.40	10.90	11.40	11.40	11.40	14.40	14.40	12.90

Special Spring Push Probes

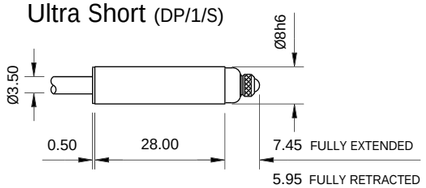
Ultra Short (AX/0.5/S)



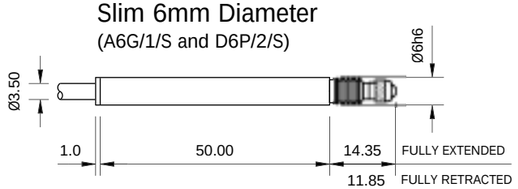
Ultra Small (AX/0.25/S and DP/0.5/S)



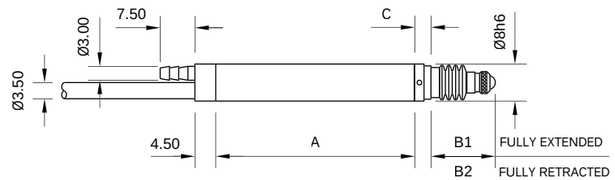
Ultra Short (DP/1/S)



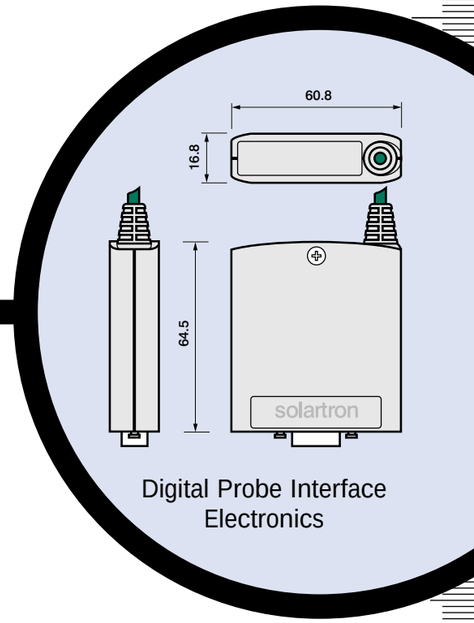
Slim 6mm Diameter (A6G/1/S and D6P/2/S)



Vacuum Retract (AX/V and DP/V)



	AX/1/V	DP/2/V	AX/5/1/V	AX/1.5/V	AX/2.5/V	DP/5/V	AX/5/V	DP/10/V	AX/10/V DP/20/V
A	43.00	46.00	84.00	58.00	63.00	65.00	87.00	96.00	127.00
C	3.50	2.00	4.00	4.00	4.00	2.00	4.00	2.00	3.00
B1	13.90	13.90	25.40	15.40	17.40	17.40	25.40	25.40	44.90
B2	11.40	11.40	14.40	11.40	11.40	11.40	14.40	14.40	23.90



Digital Probe Interface Electronics