

MEASURING TOOLS

STYLUS

STYLUS

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ข้อมูลทางเทคนิค

Technical specifications - Ball material properties

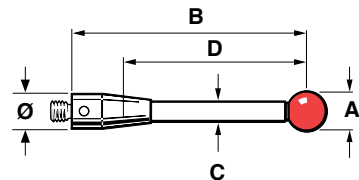
Stylus type	Material	Grade	Deviation from spherical form	Structure	Composition	Purity	Density	Hardness	Compression strength	Bending strength	Fracture toughness K1c
			(μm)	—	(wt%)	(%)	(g/cm^3)	HV	(MPa)	(MPa)	($\text{MN/m}^{3/2}$)
AL2O3 ruby balls	Synthetic ruby monocrystalline	Grade 5*	0.13	mono	99% AL_2O_3	99.90	3.90	2300	2100	400-700	1
Silicon nitride balls	Hard pressed Si_3N_4	Grade 5*	0.13	poly	Si_3N_4	90	3.0-3.2	1600	3000	850	6
Zirconia oxide balls	Sintered ZrO2	—	0.13	poly	ZrO_2	90-95	6.05	1200	2000	1000	10
Alumina hollow balls	White ceramic sintered alumina AL_2O_3	—	1	poly	AL_2O_3	99.80	3.8-3.9	1900	2500	350	3.5
Silver steel disks	Silver steel	—	1	—	—	—	8	450	—	—	—
Silver steel simple cylinder	Silver steel		Roundness 4 μm	—	—	—	8	200	—	—	—
Ruby ball ended cylinder	Synthetic ruby	Ball: Grade 5*	Ball deviation from spherical form: 0.13 Concentricity: Ball/cylinder 4 μm	mono	99% AL_2O_3	99.90	3.99	2300	2300	400-700	1
Tungsten carbide ball ended cylinder	Tungsten carbide	—	+ 20 μm end radius	—	92-93.5% WC 6.5-8% CO	14.8	14.95	1550	6000	—	—
Silver steel simple pointer	Silver steel	—	Cone angle 30°	—	—	—	8	300	—	—	—
Tungsten carbide radius end pointer	Tungsten carbide	—	Cone angle 30°	—	92-93.5% WC 6.5-8% CO	99.90	15	1550	6000	—	—
Aluminum hollow balls	Al. alloy 6082-T6	—	30 μm	—	95.2-98.3% AL	—	2.7	95	—	—	—

* Refers to DIN-5401 ball grade standard

* Grade 3 sphericity balls are available on request.

Extension material properties

Material	Coefficient of expansion @ 25 °C
Stainless steel	16x10 ⁻⁶ /°C
Tungsten carbide	5x10 ⁻⁶ /°C
White ceramic sintered alumina	8.1x10 ⁻⁶ /°C
Carbon fiber	-0.4x10 ⁻⁶ /°C
Titanium	9.2x10 ⁻⁶ /°C
Ruby	4.5x10 ⁻⁶ /°C
Silicon nitride	3.2x10 ⁻⁶ /°C
Zirconia	10.5x10 ⁻⁶ /°C



- A Ball diameter
- B Overall length
- C Stem diameter
- D Effective working length
- Ø M2 = 3 mm
- Ø M3 = 4 mm
- Ø M4 = 7 mm
- Ø M5 = 10 mm

ข้อมูลอ้างอิง M2

M2 styli and extensions quick reference guide

These are a selection of the most popular styli.

Ruby ball / stainless steel stem

Ball diameter	1.0 (0.04)	1.5 (0.06)	2.0 (0.08)	2.5 (0.10)	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)	6.0 (0.24)	8.0 (0.32)
Length 10 mm	A-5000-7806	A-5000-7802	A-5000-7803	A-5000-3604	A-5000-4154	A-5000-4155	A-5000-4155	A-5000-4156	A-5000-4158
20 mm	—	—	A-5000-3603	A-5000-7804	A-5000-4160	A-5000-4161	—	—	—

Ruby ball / tungsten carbide stem

Ball diameter	0.3 (0.012)	0.5 (0.02)	0.7 (0.03)	1.0 (0.04)	1.5 (0.06)	2.0 (0.08)	2.5 (0.10)	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)
Length 10 mm	A-5000-7800	A-5000-7805	A-5000-7801	A-5003-1325	—	—	—	—	—	—
20 mm	—	A-5003-1345	A-5003-0577	SEE DRAWING	A-5003-0034	A-5003-3822	A-5003-1896	A-5003-0938	A-5003-1029	A-5003-0046
30 mm	—	—	—	A-5000-8663	A-5003-0035	A-5003-0036	A-5003-0038	A-5003-0040	A-5003-0043	A-5003-0047
40 mm	—	—	—	—	—	A-5003-0037	A-5003-0039	A-5003-0041	A-5003-0044	A-5003-0048
50 mm	—	—	—	—	—	—	—	A-5003-0042	A-5003-0045	A-5003-0049

Ruby ball / ceramic stem

Ball diameter	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)	6.0 (0.24)
Length 30 mm	A-5003-4177	A-5003-1370	A-5003-4779	A-5003-4780
50 mm	A-5003-0064	A-5003-0065	A-5003-0066	A-5003-0470

Ruby ball / carbon fiber stem

Ball diameter	4.0 (0.16)	5.0 (0.20)	6.0 (0.24)
Length 30 mm	A-5003-4241	A-5003-4781	A-5003-4782
50 mm	A-5003-2285	A-5003-2286	A-5003-2287
75 mm	A-5003-4784	A-5003-4785	A-5003-4786
100 mm	A-5003-2289	A-5003-2290	A-5003-2291

Stylus extensions

Length	5.0 (0.20)	10.0 (0.40)	20.0 (0.80)	30.0 (1.19)	40.0 (1.58)	50.0 (1.97)	70.0 (2.76)	90.0 (3.55)
Stainless steel	A-5004-7610	A-5004-7585	A-5004-7586	A-5004-7591	A-5004-7611	—	—	—
Ceramic	—	—	—	A-5003-0070	A-5003-0071	A-5003-0072	—	—
Carbon fiber	—	—	—	—	A-5003-2280	A-5003-2281	A-5003-2282	A-5003-2283

Stylus
ปลายสัมผัส

M2
ปลายสัมผัส

M3
ปลายสัมผัส

M4
ปลายสัมผัส

M5
ปลายสัมผัส

ข้อมูลอ้างอิง M3

M3 styli and extensions quick reference guide

These are a selection of the most popular styli.

Ruby ball / stainless steel stem

Ball diameter	1.0 (0.04)	2.0 (0.08)	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)
Length 10 mm	A-5000-3551	A-5000-3552	A-5000-3553	A-5000-7606	A-5000-7630
20 mm	—	—	—	A-5000-3554	A-5000-7648

Ruby ball / tungsten carbide stem

Ball diameter	0.5 (0.02)	1.5 (0.06)	2.0 (0.08)	2.5 (0.10)	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)
Length 21 mm	A-5000-7632	A-5003-0050	—	A-5003-0054	—	—	—
30 mm	—	A-5003-0051	A-5003-0052	A-5003-0055	A-5003-0057	—	—
40 mm	—	—	A-5003-0053	A-5003-0056	A-5003-0058	A-5003-0060	A-5003-0062
50 mm	—	—	—	—	A-5003-0059	A-5003-0061	A-5003-0063

Ruby ball / ceramic stem

Ball diameter	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)
Length 50 mm	A-5003-0067	A-5003-0068	A-5003-0069

Ruby ball / carbon fiber stem

Ball diameter	6.0 (0.24)	8.0 (0.32)
Length 75 mm	A-5003-4860	A-5003-4861
100 mm	A-5003-4862	A-5003-4863

Stylus extensions

Length	10.0 (0.40)	20.0 (0.80)	35.0 (1.38)	50.0 (1.97)	70.0 (2.76)
Stainless steel	A-5004-7609	A-5004-7583	A-5004-7584	—	—
Ceramic	—	—	—	A-5003-0075	—
Carbon fiber	—	—	—	A-5003-4864	A-5003-4865

ข้อมูลอ้างอิง M4

M4 styli and extensions quick reference guide

These are a selection of the most popular styli.

Ruby ball / stainless steel stem

Ball diameter	1.0 (0.04)	2.0 (0.08)	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)	6.0 (0.24)	8.0 (0.32)
Length 10 mm	–	–	–	–	A-5000-6350	–	–
20 mm	A-5000-7545	A-5000-7547	A-5000-7549	A-5000-7551	SEE DRAWING	A-5000-7555	A-5000-7557
30 mm	–	–	–	–	A-5000-6352	–	–
50 mm	–	–	–	–	A-5000-7521	–	–
100 mm	–	–	–	–	A-5000-7522	–	–

Ruby ball / tungsten carbide stem

Ball diameter	1.0 (0.04)	2.0 (0.08)	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)	6.0 (0.24)
Length 10 mm	A-5003-4792	A-5003-2932	A-5003-4793	A-5003-4794	A-5003-4795	A-5003-4796
50 mm	–	A-5003-4797	A-5003-3680	A-5003-4799	A-5003-4800	A-5003-4801

Ruby ball / ceramic stem

Ball diameter	5.0 (0.20)	6.0 (0.24)	8.0 (0.32)
Length 50 mm	A-5003-0235	A-5000-3709	A-5000-7795
75 mm	A-5003-0236	A-5003-2764	A-5003-4802
100 mm	A-5000-9761	A-5000-3712	A-5000-7796

Ruby ball / carbon fiber stem

Ball diameter	6.0 (0.24)	8.0 (0.32)
Length 50 mm	A-5003-1436	–
100 mm	A-5003-1358	–
150 mm	A-5003-1255	–
200 mm	A-5003-1075	–
300 mm	–	A-5003-3461

Stylus extensions

Length	10.0 (0.41)	15.0 (0.60)	20.0 (0.79)	30.0 (1.19)	50.0 (1.97)	100.0 (3.94)
Stainless steel	A-5004-7559	A-5004-7600	A-5004-7601	A-5004-7602	–	–
Ceramic	–	–	–	A-5000-7754	A-5000-7755	A-5000-7727

ข้อมูลอ้างอิง M5

M5 styli and extensions quick reference guide

These are a selection of the most popular styli.

Ruby ball / tungsten carbide stem

Ball diameter	0.3 (0.012)	0.5 (0.02)	0.7 (0.03)	1.0 (0.04)	1.5 (0.06)	2.0 (0.08)	2.5 (0.10)	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)
Length 20 mm	A-5003-5201	A-5003-5202	A-5003-5203	A-5003-5204	A-5003-5205	A-5003-5206	A-5003-5207	A-5003-5208	A-5003-5209	A-5003-5210
30 mm	A-5003-5211	A-5003-5212	A-5003-5213	A-5003-5214	A-5003-5215	A-5003-5216	A-5003-5217	A-5003-5218	A-5003-5219	A-5003-5220
40 mm	—	—	—	—	A-5003-5221	A-5003-5222	A-5003-5223	A-5003-5224	—	—
50 mm	A-5003-5225	A-5003-5226	A-5003-5227	A-5003-5228	A-5003-5229	SEE DRAWING	A-5003-5232	A-5003-5234	A-5003-5235	A-5003-5236
75 mm	A-5003-5240	A-5003-5241	A-5003-5242	A-5003-5243	A-5003-5244	—	—	A-5003-5253	SEE DRAWING	SEE DRAWING
100 mm	—	—	—	—	—	—	A-5003-5254	—	—	—

Ruby ball / carbon fiber stem

Ball diameter	2.5 (0.10)	6.0 (0.24)	8.0 (0.32)	10.0 (0.40)
Length 20 mm	—	—	—	—
30 mm	—	—	—	—
40 mm	—	—	—	—
50 mm	—	A-5003-5237	A-5003-5238	A-5003-5239
75 mm	—	A-5003-5250	A-5003-5251	A-5003-5252
100 mm	—	SEE DRAWING	SEE DRAWING	SEE DRAWING
150 mm	—	A-5003-5265	A-5003-5266	A-5003-5267
200 mm	—	A-5003-5268	A-5003-5269	A-5003-5270
300 mm	—	A-5003-5271	A-5003-5272	A-5003-5273

Stylus extensions

Length	10.0 (0.41)	20.0 (0.79)	30.0 (1.19)	40.0 (1.58)	50.0 (1.97)	60.0 (2.37)	70.0 (2.76)	80.0 (3.15)	90.0 (3.55)	100.0 (3.94)
CF/titanium (Ø11 mm)	—	—	—	A-5555-0647	A-5555-0648	A-5555-0649	A-5555-0623	A-5555-0650	A-5555-0651	A-5555-0652
CF/titanium (Ø20 mm)	—	—	—	A-5555-0620	A-5555-0657	A-5555-0658	—	A-5555-0621	—	A-5555-0659
Stainless steel	A-5555-0142	A-5555-0140	A-5555-0669	—	A-5555-0670	—	—	—	—	A-5555-0136
Aluminum tube	—	—	—	—	A-5555-0671	—	—	—	—	A-5555-0127

Length	120.0 (4.76)	150.0 (5.91)	180.0 (7.09)	200.0 (7.88)	250.0 (9.85)	300.0 (11.82)	400.0 (15.76)	500.0 (19.70)	600.0 (23.64)
CF/titanium (Ø11 mm)	A-5555-0425	A-5555-0424	A-5555-0653	A-5555-0654	A-5555-0655	A-5555-0642	A-5555-0656	—	—
CF/titanium (Ø20 mm)	A-5555-0660	A-5555-0661	A-5555-0662	A-5555-0663	A-5555-0427	A-5555-0664	A-5555-0665	A-5555-0667	A-5555-0668
Stainless steel	—	—	—	—	—	—	—	—	—
Aluminum tube	—	—	—	A-5555-0125	—	—	—	—	—

Stylus
ปลายสัมผัส

M2
ปลายสัมผัส

M3
ปลายสัมผัส

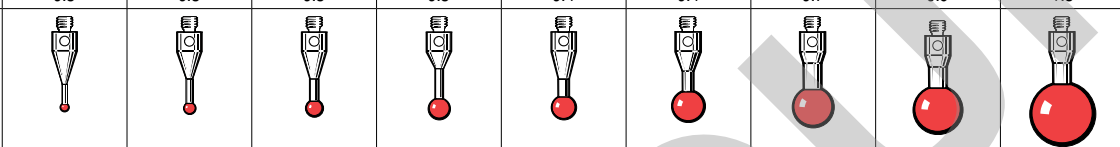
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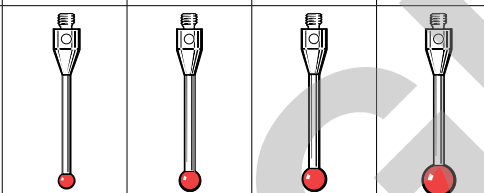
M5
ปลายสัมผัส

ปลายสัมผัส M2

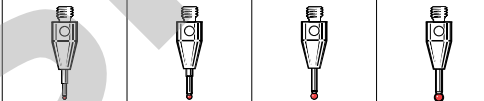
M2 threaded stylus range

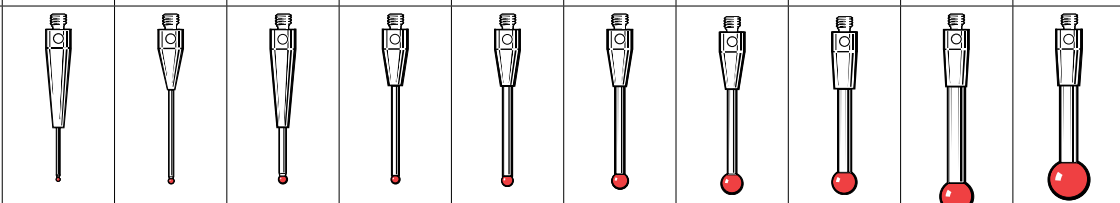
Ruby ball styli (stainless steel stems)

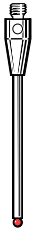
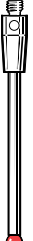
Ball material	Part number									
Ruby	A-5000-7806	A-5000-7802	A-5000-7807	A-5000-7803	A-5000-3604	A-5000-4154	A-5000-4155	A-5000-4156	A-5000-4158	
Silicon nitride	A-5004-0210	A-5004-1918	A-5003-6120	A-5004-1920	A-5003-2138	A-5003-9524	A-5004-1921	A-5004-0237	A-5004-1922	
Zirconia	A-5003-7757	A-5004-0165	A-5003-7723	A-5004-2913	A-5004-2914	A-5003-7261	A-5003-2186	A-5004-2203	A-5004-2915	
A Ball dia. mm (in.)	1.0 (0.04)	1.5 (0.06)	2.0 (0.08)	2.5 (0.10)	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)	6.0 (0.24)	8.0 (0.32)	
B Length mm (in.)	10.0 (0.40)	10.0 (0.40)	10.0 (0.40)	10.0 (0.40)	10.0 (0.40)	10.0 (0.40)	10.0 (0.40)	10.0 (0.40)	11.0 (0.44)	
C Stem dia. mm (in.)	0.7 (0.03)	0.7 (0.03)	1.0 (0.04)	1.0 (0.04)	1.5 (0.06)	1.5 (0.06)	2.5 (0.10)	2.5 (0.10)	2.5 (0.10)	
D EWL * mm (in.)	4.5 (0.18)	4.5 (0.18)	6.0 (0.24)	6.5 (0.26)	7.0 (0.28)	10.0 (0.40)	10.0 (0.40)	10.0 (0.40)	11.0 (0.44)	
Mass grams	0.3	0.3	0.3	0.3	0.4	0.4	0.7	0.9	1.5	
10 mm range 										

Ball material	Part number			
Ruby	A-5000-3603	A-5000-7804	A-5000-4160	A-5000-4161
Silicon nitride	A-5003-1730	A-5004-1923	A-5003-6691	A-5004-0236
Zirconia	A-5004-2916	A-5004-2917	A-5004-1057	A-5004-2918
A Ball dia. mm (in.)	2.0 (0.08)	2.5 (0.10)	3.0 (0.12)	4.0 (0.16)
B Length mm (in.)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)
C Stem dia. mm (in.)	1.4 (0.06)	1.4 (0.06)	1.5 (0.06)	1.5 (0.06)
D EWL * mm (in.)	14.0 (0.56)	16.4 (0.65)	17.0 (0.67)	20.0 (0.79)
Mass grams	0.4	0.4	0.5	0.6
20 mm range 				

Ruby ball styli (tungsten carbide stems)

Ball material	Part number			
Ruby	A-5000-7800	A-5000-7805	A-5000-7801	A-5003-1325
Silicon nitride	A-5004-2016**	A-5003-2020**	—	A-5004-2018
Zirconia	—	A-5003-7672	A-5004-2632**	A-5004-2919**
A Ball dia. mm (in.)	0.3 (0.012)	0.5 (0.02)	0.7 (0.03)	1.0 (0.04)
B Length mm (in.)	10.0 (0.40)	10.0 (0.40)	10.0 (0.40)	10.0 (0.40)
C Stem dia. mm (in.)	0.2 (0.01)	0.4 (0.02)	0.5 (0.02)	0.7 (0.03)
D EWL * mm (in.)	2.0 (0.08)	3.0 (0.12)	4.0 (0.16)	4.0 (0.16)
Mass grams	0.3	0.3	0.3	0.3
10 mm range 				

Ball material	Part number									
Ruby	A-5003-1345	A-5003-0577	A-5000-7808	A-5003-0033	A-5003-0034	A-5003-3822	A-5003-1896	A-5003-0938	A-5003-1029	A-5003-0046
Silicon nitride	A-5004-2019**	—	A-5004-1508	A-5004-2021	A-5004-1925	A-5004-1017	A-5004-1928	A-5004-1021	A-5004-1929	A-5004-1930
Zirconia	A-5004-2920	A-5004-1714**	A-5004-0435	A-5004-2921	A-5004-2922	A-5004-2923	A-5004-2924	A-5004-0437	A-5004-2925	A-5004-2926
A Ball dia. mm (in.)	0.5 (0.02)	0.7 (0.03)	1.0 (0.04)	1.0 (0.04)	1.5 (0.06)	2.0 (0.08)	2.5 (0.10)	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)
B Length mm (in.)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)	22.0 (0.87)	20.0 (0.79)
C Stem dia. mm (in.)	0.3 (0.012)	0.5 (0.02)	0.7 (0.03)	0.8 (0.04)	1.0 (0.04)	1.0 (0.04)	1.0 (0.04)	1.5 (0.06)	2.0 (0.08)	2.5 (0.10)
D EWL * mm (in.)	7.0 (0.28)	12.0 (0.48)	7.0 (0.28)	12.5 (0.50)	12.5 (0.50)	14.0 (0.55)	15.5 (0.62)	17.0 (0.67)	22.0 (0.87)	20.0 (0.79)
Mass grams	0.48	0.32	0.50	0.41	0.50	0.48	0.50	0.77	1.24	1.98
20 mm range 										

Ball material	Part number						
Ruby	A-5000-8663	A-5003-0035	A-5003-0036	A-5003-0038	A-5003-0040	A-5003-0043	A-5003-0047
Silicon nitride	A-5004-2022	A-5004-1931	A-5003-7573	A-5004-1932	A-5004-1933	A-5004-1944	A-5004-1945
Zirconia	A-5004-2927	A-5004-1711	A-5004-1058	A-5004-2928	A-5004-0264	A-5004-2929	A-5004-2930
A Ball dia. mm (in.)	1.0 (0.04)	1.5 (0.06)	2.0 (0.08)	2.5 (0.10)	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)
B Length mm (in.)	27.5 (1.08)	30.0 (1.19)	30.0 (1.19)	30.0 (1.19)	30.0 (1.19)	30.0 (1.19)	30.0 (1.19)
C Stem dia. mm (in.)	0.7 (0.03)	1.0 (0.04)	1.5 (0.06)	2.0 (0.08)	2.0 (0.08)	2.0 (0.08)	2.5 (0.10)
D EWL* mm (in.)	20.5 (0.81)	22.5 (0.89)	22.5 (0.89)	22.5 (0.89)	27.0 (1.06)	30.0 (1.19)	30.0 (1.19)
Mass grams	0.40	0.58	0.99	1.48	1.49	1.57	2.57
30 mm range							

Ruby ball styli (ceramic stems)

Ball material	Part number			
Ruby	A-5003-4177	A-5003-1370	A-5003-4779	A-5003-4780
Silicon nitride	A-5004-1946	A-5004-1952	A-5004-1953	A-5004-1954
Zirconia	A-5004-2931	A-5004-2932	A-5004-2933	A-5004-2934
A Ball dia. mm (in.)	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)	6.0 (0.24)
B Length mm (in.)	30.0 (1.19)	30.0 (1.19)	30.0 (1.19)	30.0 (1.19)
C Stem dia. mm (in.)	2.0 (0.08)	2.0 (0.08)	2.5 (0.10)	2.5 (0.10)
D EWL* mm (in.)	27.0 (1.06)	30.0 (1.19)	30.0 (1.19)	30.0 (1.19)
Mass grams	0.44	0.68	0.93	1.11
30 mm range				

Ruby ball styli (carbon fiber stems)

Ball material	Part number		
Ruby	A-5003-4241	A-5003-4781	A-5003-4782
Silicon nitride	A-5004-1955	A-5004-1956	A-5004-1957
Zirconia	A-5004-2935	A-5004-2936	A-5004-0618
A Ball dia. mm (in.)	4.0 (0.16)	5.0 (0.20)	6.0 (0.24)
B Length mm (in.)	30.0 (1.19)	30.0 (1.19)	30.0 (1.19)
C Stem dia. mm (in.)	3.0 (0.12)	3.0 (0.12)	3.0 (0.12)
D EWL* mm (in.)	30.0 (1.19)	30.0 (1.19)	30.0 (1.19)
Mass grams	0.57	0.79	0.96
30 mm range			

Ruby ball styli (tungsten carbide stems)

Ball material	Part number							
Ruby	A-5003-0037	A-5003-0039	A-5003-0041	A-5003-0044	A-5003-0048	A-5003-0042	A-5003-0045	A-5003-0049
Silicon nitride	A-5003-7269	A-5004-1959	A-5004-1960	A-5004-1961	A-5004-1962	A-5004-1963	A-5004-1964	A-5004-1965
Zirconia	A-5004-2937	A-5004-2938	A-5004-1059	A-5004-2939	A-5004-2940	A-5004-2942	A-5004-2943	A-5004-2944
A Ball dia. mm (in.)	2.0 (0.08)	2.5 (0.10)	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)
B Length mm (in.)	40.0 (1.58)	40.0 (1.58)	40.0 (1.58)	40.0 (1.58)	40.0 (1.58)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)
C Stem dia. mm (in.)	1.5 (0.06)	2.0 (0.08)	2.0 (0.08)	2.0 (0.08)	2.5 (0.10)	2.0 (0.08)	2.0 (0.08)	2.5 (0.10)
D EWL* mm (in.)	32.5 (1.28)	32.5 (1.28)	37.0 (1.46)	40.0 (1.58)	40.0 (1.58)	47.0 (1.85)	50.0 (1.97)	50.0 (1.97)
Mass grams	1.29	1.95	1.97	2.04	3.17	2.44	2.52	3.75
40 mm – 50 mm range								

Ruby ball styli (ceramic stems)

Ball material	Part number			
Ruby	A-5003-0064	A-5003-0065	A-5003-0066	A-5003-0470
Silicon nitride	A-5004-1967	A-5004-1519	A-5004-1968	A-5004-1969
Zirconia	A-5004-2945	A-5004-2946	A-5004-2947	A-5004-2948
A Ball dia. mm (in.)	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)	6.0 (0.24)
B Length mm (in.)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)
C Stem dia. mm (in.)	2.0 (0.08)	2.0 (0.08)	2.5 (0.10)	2.5 (0.10)
D EWL* mm (in.)	47.0 (1.85)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)
Mass grams	0.83	0.91	1.31	1.49

50 mm range

Ruby ball styli (carbon fiber stems)

Ball material	Part number		
Ruby	A-5003-2285	A-5003-2286	A-5003-2287
Silicon nitride	A-5004-1970	A-5004-1971	A-5004-1972
Zirconia	A-5004-1331	A-5004-1330	A-5004-1329
A Ball dia. mm (in.)	4.0 (0.16)	5.0 (0.20)	6.0 (0.24)
B Length mm (in.)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)
C Stem dia. mm (in.)	3.0 (0.12)	3.0 (0.12)	3.0 (0.12)
D EWL* mm (in.)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)
Mass grams	1.00	1.10	1.20

50 mm range

Ball material	Part number					
Ruby	A-5003-4784	A-5003-4785	A-5003-4786	A-5003-2289	A-5003-2290	A-5003-2291
Silicon nitride	A-5004-1973	A-5004-1974	A-5004-1975	A-5004-1976	A-5004-1977	A-5004-1978
Zirconia	A-5004-2949	A-5004-2950	A-5004-2951	A-5004-2952	A-5004-2953	A-5004-2954
A Ball dia. mm (in.)	4.0 (0.16)	5.0 (0.20)	6.0 (0.24)	4.0 (0.16)	5.0 (0.20)	6.0 (0.24)
B Length mm (in.)	75.0 (2.96)	75.0 (2.96)	75.0 (2.96)	100.0 (3.94)	100.0 (3.94)	100.0 (3.94)
C Stem dia. mm (in.)	2.0 (0.08)	3.0 (0.12)	3.0 (0.12)	3.0 (0.12)	3.0 (0.12)	3.0 (0.12)
D EWL* mm (in.)	75.0 (2.96)	75.0 (2.96)	75.0 (2.96)	100.0 (3.94)	100.0 (3.94)	100.0 (3.94)
Mass grams	0.75	1.35	1.45	1.50	1.59	1.78

75 mm – 100 mm range

Star styli (fixed)

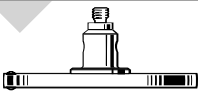
Part number	A-5003-4011	A-5000-7811	A-5003-4787	A-5003-4788	A-5000-7629	A-5000-3626
Span mm (in.)	10.0 (0.40)	10.0 (0.40)	20.0 (0.79)	20.0 (0.79)	18.0 (0.71)	30.0 (1.19)
Ball mm (in.)	0.5 (0.02)	1.0 (0.04)	0.5 (0.02)	1.0 (0.04)	2.0 (0.08)	2.0 (0.08)
Stem dia. mm (in.)	0.3 (0.012)	0.7 (0.03)	0.3 (0.012)	0.7 (0.03)	1.4 (0.06)	1.4 (0.06)
EWL* mm (in.)	N/A	N/A	N/A	N/A	12.0 (0.48)	12.0 (0.48)
Mass grams	0.7	0.5	0.7	0.9	1.3	1.8
						

Star stylus centers

Part number	A-5003-4789	A-5003-4790	A-5003-4791	A-5000-3609
Ball mm (in.)	1.0 (0.04)	0.5 (0.02)	1.0 (0.04)	2.0 (0.08)
Stem dia. mm (in.)	0.7 (0.03)	0.4 (0.02)	0.7 (0.03)	1.4 (0.06)
EWL* mm (in.)	3.5 (0.14)	7.0 (0.28)	11.0 (0.44)	12.0 (0.48)
Mass grams	0.31	0.43	0.45	0.44
				

Disk styli

Part number	A-5000-3611 Ruby	A-5004-1387 Silver steel	A-5004-1395 Silver steel	A-5004-1396 Silver steel	A-5000-7809 Silver steel
Disk dia. mm (in.)	6.0 (0.24)	10.0 (0.39)	12.0 (0.47)	14.0 (0.55)	18.0 (0.71)
Disk depth mm (in.)	1.2 (0.05)	1.2 (0.05)	1.6 (0.06)	1.6 (0.06)	1.6 (0.06)
Roller depth mm (in.)	2.0 (0.08)	2.0 (0.08)	2.5 (0.10)	2.5 (0.10)	2.5 (0.10)
Stem dia. mm (in.)	2.0 (0.08)	2.0 (0.08)	4.2 (0.17)	4.2 (0.17)	4.2 (0.17)
Mass grams	0.6	1.0	2.0	2.5	3.0
					

Part number	A-5000-3613 Silver steel	A-5000-7810 Silver steel	A-5000-4187 Silver steel
Disk dia. mm (in.)	18.0 (0.71)	25.0 (0.99)	25.0 (0.99)
Disk depth mm (in.)	2.3 (0.10)	1.6 (0.06)	3.1 (0.13)
Roller depth mm (in.)	3.0 (0.12)	2.5 (0.10)	N/A
Stem dia. mm (in.)	N/A	4.2 (0.17)	N/A
Mass grams	2.7	4.0	3.8
			

Cylinder styli

Part number	A-5004-7589 Silver steel	A-5004-7590 Silver steel	A-5000-8876 Ruby	A-5000-8877 Ruby	A-5000-7812 Ruby	A-5003-0073 Ruby
Cylinder dia. mm (in.)	1.5 (0.06)	3.0 (0.12)	1.0 (0.04)	1.5 (0.06)	2.0 (0.08)	4.0 (0.16)
Overall length mm (in.)	10.75 (0.42)	12.75 (0.50)	15.0 (0.60)	15.0 (0.60)	21.2 (0.83)	22.0 (0.87)
Stem dia. mm (in.)	1.0 (0.04)	1.5 (0.06)	N/A	N/A	1.6 (0.07)	2.0 (0.08)
EWL* mm (in.)	1.25 (0.05)	3.8 (0.15)	8.0 (0.32)	8.0 (0.32)	7.2 (0.29)	10.0 (0.40)
Mass grams	0.3	0.6	0.3	0.3	0.5	0.9
						

Parallel hemispherical-ended styli (tungsten carbide)

Part number	A-5003-1208	A-5003-1210	A-5003-1218	A-5003-1219	A-5003-1228	A-5003-0074	A-5003-1258
Cylinder dia. mm (in.)	0.3 (0.012)	0.5 (0.02)	1.0 (0.04)	1.5 (0.06)	2.0 (0.08)	2.0 (0.08)	3.0 (0.12)
Overall length mm (in.)	10.2 (0.41)	15.3 (0.61)	35.5 (1.40)	15.8 (0.63)	16.0 (0.63)	40.0 (1.58)	22.5 (0.89)
EWL* mm (in.)	2.7 (0.11)	7.8 (0.31)	28.0 (1.10)	8.3 (0.33)	8.5 (0.34)	32.0 (1.26)	22.5 (0.89)
Mass grams	0.3	0.3	0.7	0.6	0.8	2.0	2.0
							

Stylus extensions (stainless steel)

Part number	A-5004-7610	A-5004-7585	A-5004-7586	A-5004-7591	A-5004-7611
Length mm (in.)	5.0 (0.20)	10.0 (0.40)	20.0 (0.79)	30.0 (1.19)	40.0 (1.58)
Stem dia. mm (in.)	3.0 (0.12)	3.0 (0.12)	3.0 (0.12)	3.0 (0.12)	3.0 (0.12)
Mass grams	0.2	0.4	0.9	1.4	1.8
					

Stylus extensions (ceramic)

Part number	A-5003-0070	A-5003-0071	A-5003-0072
Length mm (in.)	30.0 (1.19)	40.0 (1.58)	50.0 (1.97)
Stem dia. mm (in.)	3.0 (0.12)	3.0 (0.12)	3.0 (0.12)
Mass grams	0.97	1.22	1.51
			

Stylus extensions (carbon fiber)

Part number	A-5003-2280	A-5003-2281	A-5003-2282	A-5003-2283
Length mm (in.)	40.0 (1.58)	50.0 (1.97)	70.0 (2.76)	90.0 (3.55)
Stem dia. mm (in.)	3.0 (0.12)	3.0 (0.12)	3.0 (0.12)	3.0 (0.12)
Outer dia. mm (in.)	3.5 (0.14)	3.5 (0.14)	3.5 (0.14)	3.5 (0.14)
Mass grams	0.9	1.0	1.3	1.5
				

Stylus
ปลายสัมผัส

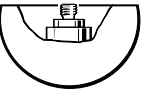
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ปลายสัมผัส

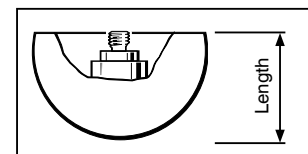
M3
ปลายสัมผัส

M4
ปลายสัมผัส

M5
ปลายสัมผัส

Special purpose styli

Part number	A-5004-7588 Silver steel	A-5000-7813 Tungsten carbide	A-5000-3614 Ceramic
Length mm (in.)	15.0 (0.60)	10.0 (0.40)	11.0 (0.44)
Ball dia. mm (in.)	N/A	N/A	18.0 (0.71)
End feature mm (in.)	Flat rad. 0.05 (0.002)	Spherical rad. 0.1 (0.004)	N/A
Angles	30° inclusive	30° inclusive	N/A
Mass grams	0.7	0.4	3.3
			



ปลายสัมผัส M3

M3 threaded stylus range

Ruby ball styli (stainless steel stems)

Ball material		Part number						
Ruby		A-5000-3551	A-5000-3552	A-5000-3553	A-5000-7606	A-5000-7630	A-5000-3554	A-5000-7648
Silicon nitride		A-5004-1979	A-5003-5723	A-5003-6257	A-5003-5061	A-5003-6695	A-5004-1980	A-5004-1981
Zirconia		A-5004-2955	A-5003-5736	A-5004-2956	A-5003-5737	A-5003-9500	A-5004-2957	A-5004-2958
A	Ball dia. mm (in.)	1.0 (0.04)	2.0 (0.08)	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)	4.0 (0.16)	5.0 (0.20)
B	Length mm (in.)	21.0 (0.83)	21.0 (0.83)	21.0 (0.83)	21.0 (0.83)	21.0 (0.83)	31.0 (1.23)	31.0 (1.23)
C	Stem dia. mm (in.)	0.7 (0.03)	1.4 (0.06)	1.5 (0.06)	2.5 (0.10)	2.5 (0.10)	2.5 (0.10)	3.5 (0.14)
D	EWL* mm (in.)	4.0 (0.16)	9.6 (0.38)	14.7 (0.58)	17.2 (0.68)	21.0 (0.83)	27.0 (1.07)	31.0 (1.23)
Mass grams		1.0	1.0	1.0	1.3	1.5	2.5	3.0
21 mm – 31 mm range								

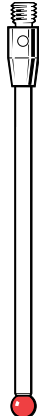
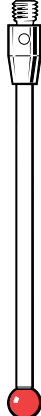
Ruby ball styli (tungsten carbide stems)

Ball material		Part number						
Ruby		A-5000-7632	A-5003-0050	A-5003-0054	A-5003-0051	A-5003-0052	A-5003-0055	A-5003-0057
Silicon nitride		A-5004-2023**	A-5004-1198	A-5004-1982	A-5003-8091	A-5003-5724	A-5004-1983	A-5004-1984
Zirconia		A-5004-2959	A-5004-2960	A-5004-2961	A-5004-2962	A-5003-5738	A-5004-2963	A-5003-6766
A	Ball dia. mm (in.)	0.5 (0.02)	1.5 (0.06)	2.5 (0.10)	1.5 (0.06)	2.0 (0.08)	2.5 (0.10)	3.0 (0.12)
B	Length mm (in.)	21.0 (0.83)	20.0 (0.79)	20.2 (0.80)	30.0 (1.19)	30.0 (1.19)	30.0 (1.19)	30.0 (1.19)
C	Stem dia. mm (in.)	0.4 (0.02)	1.0 (0.04)	2.0 (0.08)	1.0 (0.04)	1.5 (0.06)	2.0 (0.08)	2.0 (0.08)
D	EWL* mm (in.)	2.0 (0.08)	12.5 (0.50)	12.5 (0.50)	22.5 (0.89)	22.8 (0.90)	22.5 (0.89)	24.0 (0.94)
Mass grams		1.0	0.8	1.3	0.93	1.32	1.81	1.83
20 mm – 30 mm range								

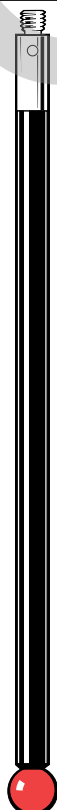
Ball material		Part number				
Ruby		A-5003-0053	A-5003-0056	A-5003-0058	A-5003-0060	A-5003-0062
Silicon nitride		A-5004-1985	A-5004-1986	A-5004-1987	A-5004-1195	A-5004-1718
Zirconia		A-5003-2043	A-5004-2964	A-5004-2965	A-5003-6767	A-5004-2966
A	Ball dia. mm (in.)	2.0 (0.08)	2.5 (0.10)	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)
B	Length mm (in.)	40.0 (1.58)	40.0 (1.58)	40.0 (1.58)	40.0 (1.58)	40.0 (1.58)
C	Stem dia. mm (in.)	1.5 (0.06)	2.0 (0.08)	2.0 (0.08)	2.0 (0.08)	2.5 (0.10)
D	EWL* mm (in.)	32.5 (1.28)	32.5 (1.28)	33.7 (1.33)	36.0 (1.42)	40.0 (1.58)
Mass grams		1.58	2.28	2.30	2.38	3.50
40 mm range						

Ball material		Part number		
Ruby		A-5003-0059	A-5003-0061	A-5003-0063
Silicon nitride		A-5004-1199	A-5004-1988	A-5004-1201
Zirconia		A-5004-2968	A-5003-6768	A-5003-7665
A	Ball dia. mm (in.)	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)
B	Length mm (in.)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)
C	Stem dia. mm (in.)	2.0 (0.08)	2.0 (0.08)	2.5 (0.10)
D	EWL* mm (in.)	43.7 (1.72)	46.0 (1.82)	50.0 (1.97)
Mass grams		2.78	2.85	4.10
50 mm range				

Ruby ball styli (ceramic stems)

Ball material	Part number		
Ruby	A-5003-0067	A-5003-0068	A-5003-0069
Silicon nitride	A-5004-1989	A-5003-5725	A-5004-1990
Zirconia	A-5004-2969	A-5003-5739	A-5004-2970
A Ball dia. mm (in.)	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)
B Length mm (in.)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)
C Stem dia. mm (in.)	2.0 (0.08)	2.0 (0.08)	2.5 (0.10)
D EWL* mm (in.)	43.7 (1.72)	46.0 (1.82)	50.0 (1.97)
Mass grams	1.17	1.24	1.33
50 mm range			

Ruby ball styli (carbon fiber stems)

Ball material	Part number			
Ruby	A-5003-4860	A-5003-4862	A-5003-4861	A-5003-4863
Silicon nitride	A-5003-5726	A-5004-1991	A-5003-5727	A-5004-5466
Zirconia	A-5003-5740	A-5003-6771	A-5003-5741	A-5003-6778
A Ball dia. mm (in.)	6.0 (0.24)	8.0 (0.32)	6.0 (0.24)	8.0 (0.32)
B Length mm (in.)	75.0 (2.96)	75.0 (2.96)	100.0 (3.94)	100.0 (3.94)
C Stem dia. mm (in.)	4.0 (0.16)	4.0 (0.16)	4.0 (0.16)	4.0 (0.16)
D EWL* mm (in.)	75.0 (2.96)	75.0 (2.96)	100.0 (3.94)	100.0 (3.94)
Mass grams	2.40	2.98	2.89	3.47
75 mm – 100 mm range				

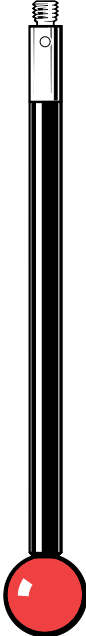
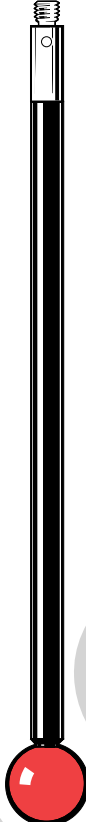
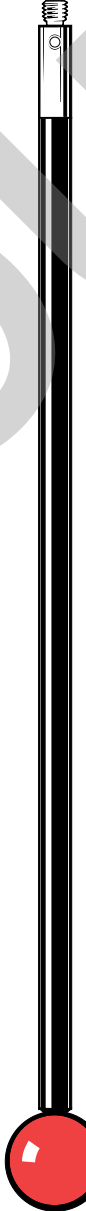
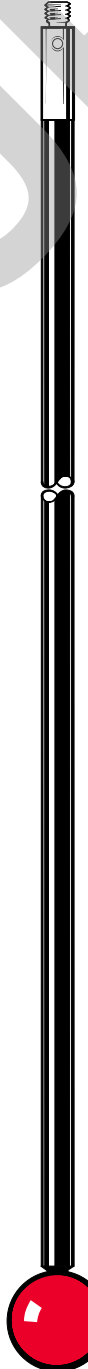
Stylus
ปลายสัมผัส

M2
ปลายสัมผัส

M3
ปลายสัมผัส

M4
ปลายสัมผัส

M5
ปลายสัมผัส

Ball material		Part number						
Ruby		A-5003-7057	A-5003-7056	A-5003-7055	A-5003-7054	A-5003-7445	A-5003-7446	A-5003-7447
Silicon nitride		A-5004-1992	A-5004-1993	A-5004-1994	A-5004-1995	A-5004-1996	A-5004-1997	A-5004-1998
Zirconia		A-5004-2972	A-5003-9495	A-5004-2973	A-5004-2974	A-5004-2975	A-5004-2976	A-5004-2977
A	Ball dia. mm (in.)	10.0 (0.40)	10.0 (0.40)	10.0 (0.40)	10.0 (0.40)	12.0 (0.48)	12.0 (0.48)	12.0 (0.48)
B	Length mm (in.)	75.0 (2.96)	100.0 (3.94)	150.0 (5.91)	200.0 (7.88)	100.0 (3.94)	150.0 (5.91)	200.0 (7.88)
C	Stem dia. mm (in.)	4.0 (0.16)	4.0 (0.16)	4.0 (0.16)	4.0 (0.16)	4.0 (0.16)	4.0 (0.16)	4.0 (0.16)
D	EWL* mm (in.)	75.0 (2.96)	100.0 (3.94)	150.0 (5.91)	200.0 (7.88)	100.0 (3.94)	150.0 (5.91)	200.0 (7.88)
Mass grams		4.05	4.53	5.49	6.47	5.9	6.9	7.9
75 mm – 100 mm range								

Stylus extensions (stainless steel)

Part number	A-5004-7609	A-5004-7583	A-5004-7584
Length mm (in.)	10.0 (0.40)	20.0 (0.79)	35.0 (1.38)
Stem dia. mm (in.)	4.0 (0.16)	4.0 (0.16)	4.0 (0.16)
Mass grams	0.9	1.6	2.9
			

Stylus extensions (carbon fiber)

Part number	A-5003-4864	A-5003-4865
Length mm (in.)	75.0 (2.96)	100.0 (3.94)
Stem dia. mm (in.)	4.0 (0.16)	4.0 (0.16)
Mass grams	2.53	3.02
		

Stylus
ปลายสัมผัส

M2
ปลายสัมผัส

M3
ปลายสัมผัส

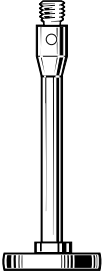
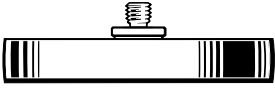
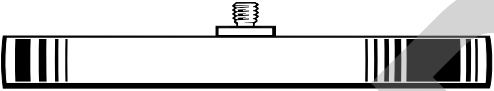
M4
ปลายสัมผัส

M5
ปลายสัมผัส

Stylus extensions (ceramic)

Part number	A-5003-0075
Length mm (in.)	50.0 (1.97)
Stem dia. mm (in.)	4.0 (0.16)
Mass grams	2.95
	

Disk and hollow ball styli

Part number	A-5000-3615 Silver steel	A-5000-7612 Silver steel	A-5000-7669 Carbon steel
Disk dia. mm (in.)	12.7 (0.50)	35.0 (1.38)	63.5 (2.51)
Disk depth mm (in.)	2.2 (0.09)	5.0 (0.20)	6.0 (0.24)
Stem dia. mm (in.)	3.5 (0.14)	N/A	N/A
Mass grams	4.0	10.0	45.0
			

Stylus

ปลายสัมผัส

M2

ปลายสัมผัส

M3

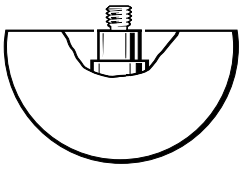
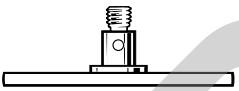
ปลายสัมผัส

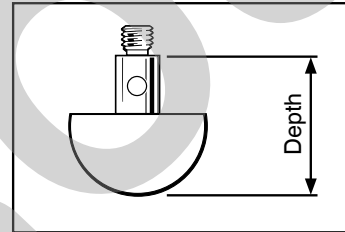
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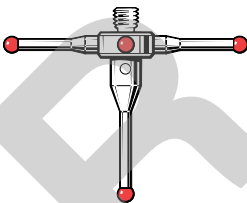
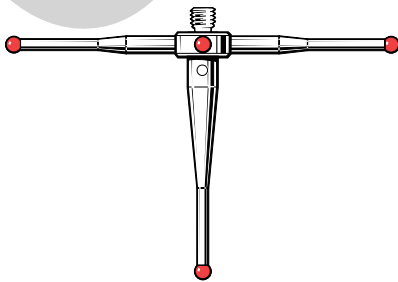
M5

ปลายสัมผัส

Part number	A-5000-7814 Ceramic	A-5003-7098 Ceramic
Disk dia. mm (in.)	30.0 (1.19)	30.0 (1.19)
Disk depth mm (in.)	17.0 (0.67)	1.5 (0.06)
Stem dia. mm (in.)	N/A	4.0 (0.16)
Mass grams	13.0	3.6
		



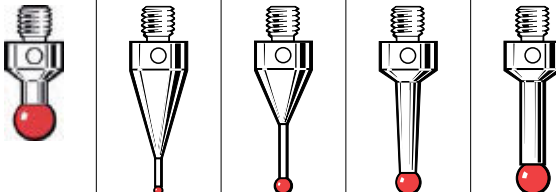
Star styli (fixed)

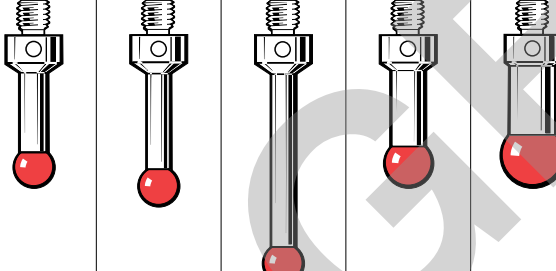
Part number	A-5003-0076	A-5003-0077
Span mm (in.)	30.0 (1.19)	50.0 (1.97)
Ball mm (in.)	2.0 (0.08)	2.0 (0.08)
Stem dia. mm (in.)	1.4 (0.06)	1.4 (0.06)
EWL* mm (in.)	11.0 (0.44)	11.0 (0.44)
Mass grams	2.38	5.25
		

ปลายสัมผัส M4

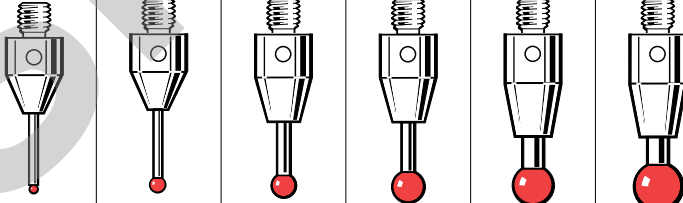
M4 threaded stylus range

Ruby ball styli (stainless steel stems)

Ball material	Part number				
Ruby	A-5000-6350	A-5000-7545	A-5000-7547	A-5000-7549	A-5000-7551
Silicon nitride	—	—	A-5003-5728	—	A-5003-5729
Zirconia	—	—	A-5003-5742	—	A-5003-5743
A Ball dia. mm (in.)	5.0 (0.20)	1.0 (0.04)	2.0 (0.08)	3.0 (0.12)	4.0 (0.16)
B Length mm (in.)	10.0 (0.39)	19.5 (0.77)	19.0 (0.75)	18.5 (0.73)	18.0 (0.71)
C Stem dia. mm (in.)	3.0 (0.12)	0.7 (0.03)	1.4 (0.05)	2.0 (0.08)	3.0 (0.12)
D EWL* mm (in.)	5.0 (0.20)	4.5 (0.18)	9.2 (0.36)	13.0 (0.52)	13.7 (0.54)
Mass grams	1.9	2.5	2.3	2.0	2.1
					

Part number	A-5000-7553	A-5000-6731	A-5000-6352	A-5000-7555	A-5000-7557
A Ball dia. mm (in.)	5.0 (0.20)	5.0 (0.20)	5.0 (0.20)	6.0 (0.24)	8.0 (0.32)
B Length mm (in.)	17.5 (0.69)	20.0 (0.79)	30.0 (1.19)	17.0 (0.67)	16.0 (0.63)
C Stem dia. mm (in.)	3.5 (0.14)	3.0 (0.12)	3.0 (0.12)	4.5 (0.18)	6.0 (0.24)
D EWL* mm (in.)	13.6 (0.54)	15.89 (0.63)	26.0 (1.03)	13.3 (0.52)	16.0 (0.63)
Mass grams	2.3	2.4	3.0	3.0	3.9
10 mm – 30 mm range 					

Ruby ball styli (tungsten carbide stems)

Part number	A-5003-4792	A-5003-2932	A-5003-4793	A-5003-4794	A-5003-4795	A-5003-4796
A Ball dia. mm (in.)	1.0 (0.04)	2.0 (0.08)	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)	6.0 (0.24)
B Length mm (in.)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)
C Stem dia. mm (in.)	0.7 (0.03)	1.5 (0.06)	2.0 (0.08)	2.0 (0.08)	2.5 (0.10)	2.5 (0.10)
D EWL* mm (in.)	10.0 (0.40)	10.0 (0.40)	8.5 (0.33)	8.5 (0.33)	7.9 (0.31)	10.7 (0.42)
Mass grams	2.39	3.01	3.53	3.53	4.52	4.66
20 mm range 						

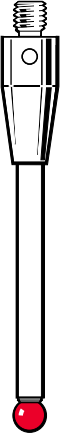
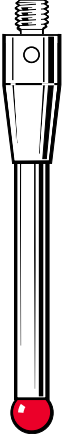
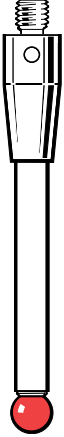
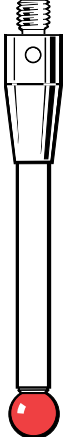
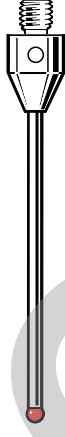
Stylus
ปลายสัมผัส

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ปลายสัมผัส

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M5
ปลายสัมผัส

Part number		A-5003-0233 Ceramic	A-5000-7521 Stainless steel	A-5003-0235 Ceramic	A-5000-3709 Ceramic	A-5000-7795 Ceramic	A-5003-4797 Tungsten carbide	A-5003-3680 Tungsten carbide	A-5003-4799 Tungsten carbide	A-5003-4800 Tungsten carbide	A-5003-4801 Tungsten carbide
A	Ball dia. mm (in.)	4.0 (0.16)	5.0 (0.20)	5.0 (0.20)	6.0 (0.24)	8.0 (0.32)	2.0 (0.08)	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)	6.0 (0.24)
B	Length mm (in.)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)
C	Stem dia. mm (in.)	3.0 (0.12)	4.5 (0.18)	3.8 (0.15)	4.5 (0.18)	4.5 (0.18)	1.5 (0.06)	2.0 (0.08)	2.0 (0.08)	2.5 (0.10)	2.5 (0.10)
D	EWL* mm (in.)	33.5 (1.32)	33.5 (1.32)	33.5 (1.32)	38.5 (1.52)	50.0 (1.97)	40.0 (1.58)	38.5 (1.52)	38.5 (1.52)	37.9 (1.49)	40.7 (1.60)
	Mass grams	3.9	5.8	5.0	4.8	5.4	3.80	4.94	4.99	6.72	6.86
50 mm range											

Part number		A-5003-0236 Ceramic	A-5003-2764 Ceramic	A-5003-4802 Ceramic
A	Ball dia. mm (in.)	5.0 (0.20)	6.0 (0.24)	8.0 (0.32)
B	Length mm (in.)	75.0 (2.96)	75.0 (2.96)	75.0 (2.96)
C	Stem dia. mm (in.)	3.8 (0.15)	4.5 (0.18)	4.5 (0.18)
D	EWL* mm (in.)	58.5 (2.30)	63.5 (2.51)	75.0 (2.96)
	Mass grams	5.63	5.64	6.20
75 mm range				

Ruby ball styli

Part number	A-5000-7522 Stainless steel	A-5000-9761 Ceramic	A-5000-7523 Stainless steel	A-5000-3712 Ceramic	A-5000-8156 Ceramic	A-5000-7796 Ceramic	A-5003-3461 Carbon fiber
A Ball dia. mm (in.)	5.0 (0.20)	5.0 (0.20)	5.0 (0.20)	6.0 (0.24)	6.0 (0.24)	8.0 (0.32)	8.0 (0.32)
B Length mm (in.)	100.0 (3.94)	100.0 (3.94)	150.0 (5.91)	100.0 (3.94)	150.0 (5.91)	100.0 (3.94)	300.0 (11.82)
C Stem dia. mm (in.)	4.5 (0.18)	3.8 (0.15)	4.4 (0.17)	4.5 (0.18)	4.5 (0.18)	4.5 (0.18)	4.5 (0.18)
D EWL* mm (in.)	83.2 (3.38)	83.5 (3.29)	133.00 (5.24)	88.5 (3.48)	135.0 (5.31)	100.0 (3.94)	300.0 (11.82)
Mass grams	11.3	6.3	17.4	6.3	7.9	7.5	10.4

100 mm – 300 mm range

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RENISHAW

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Ruby ball styli (carbon fiber stems)

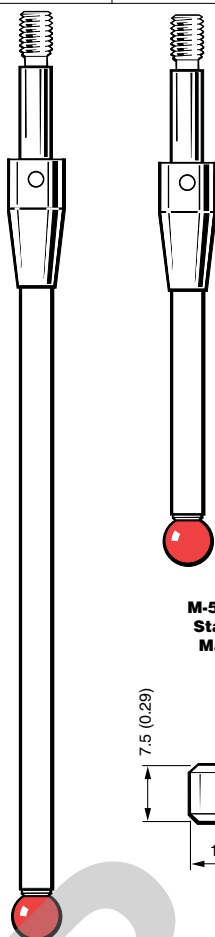
Recommended for use with OMP400 and RMP600

Ball material		Part number			
Ruby		A-5003-7306	A-5003-6510	A-5003-6511	A-5003-6512
Silicon nitride		A-5003-5730	A-5003-5731	—	—
Zirconia		A-5003-5744	A-5003-5745	—	—
A	Ball dia. mm (in.)	6.0 (0.24)	6.0 (0.24)	6.0 (0.24)	6.0 (0.24)
B	Length mm (in.)	50.0 (1.97)	100.0 (3.94)	150.0 (5.91)	200.0 (7.88)
C	Stem dia. mm (in.)	4.5 (0.18)	4.5 (0.18)	4.5 (0.18)	4.5 (0.18)
D	EWL* mm (in.)	38.5 (1.52)	88.5 (3.48)	138.5 (5.45)	188.5 (7.42)
Mass grams		4.1	6.2	7.5	8.7

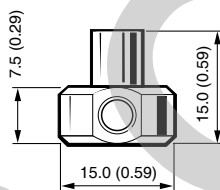
A-5003-1436	A-5003-1358	A-5003-1255	A-5003-1075
—	—	—	—
—	—	—	—
6.0 (0.24)	6.0 (0.24)	6.0 (0.24)	6.0 (0.24)
50.0 (1.97)	100.0 (3.94)	150.0 (5.91)	200.0 (7.88)
4.5 (0.18)	4.5 (0.18)	4.5 (0.18)	4.5 (0.18)
38.5 (1.52)	88.5 (3.58)	138.5 (5.46)	188.5 (7.42)
4.1	6.2	7.5	8.7

Star styli

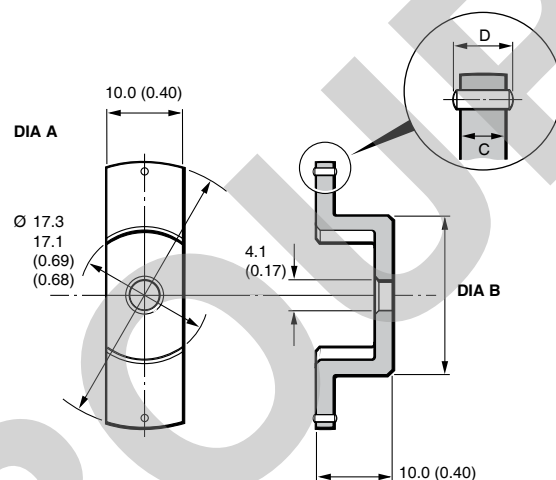
Part number	A-5000-6462 Ceramic	A-5000-7098 Ceramic
Ball mm (in.)	6.0 (0.24)	6.0 (0.24)
Length mm (in.)	100.0 (3.94)	50.0 (1.97)
Stem dia. mm (in.)	4.5 (0.18)	4.5 (0.18)
EWL* mm (in.)	88.5 (3.48)	38.5 (1.52)
Mass grams	7.5	6.0



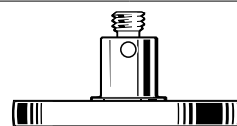
**M-5000-6460
Star center
Mass 10 g**



Part number	A-5000-7596	A-5000-7597	A-5000-7598
Ball mm (in.)	30.0 (1.19)	35.0 (1.38)	50.0 (1.97)
Length mm (in.)	21.0 (0.83)	21.0 (0.83)	23.0 (0.91)
Stem dia. mm (in.)	2.2 (0.09)	2.2 (0.09)	3.0 (0.12)
EWL* mm (in.)	3.0 (0.12)	3.0 (0.12)	4.0 (0.16)
Mass grams	8.01	9.57	13.55

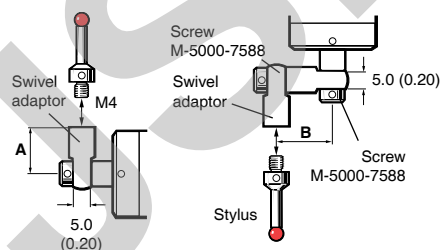


Part number	A-5000-6351 Silver steel
Disk dia. mm (in.)	30.0 (1.18)
Disk depth mm (in.)	3.0 (0.12)
Length mm (in.)	10.0 (0.39)
Rollers	NO
Mass grams	7.9

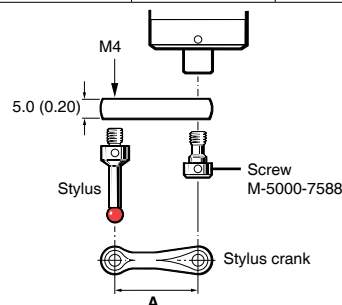


Swivel adaptor

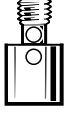
Part number	A-5004-7607	A-5004-7608
Length A mm (in.)	10.0 (0.40)	13.5 (0.54)
Length B mm (in.)	12.5 (0.50)	16.0 (0.63)
Mass grams	2.76	3.70



Part number	A-5004-7605	A-5004-7606
Length A mm (in.)	21.9 (0.86)	27.6 (1.09)
Mass grams	6.07	6.94

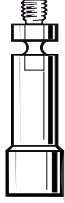


Crash protection devices

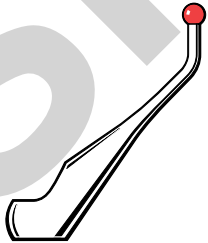
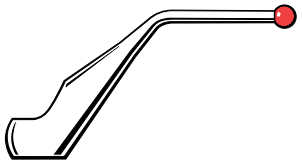
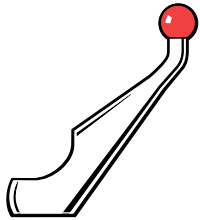
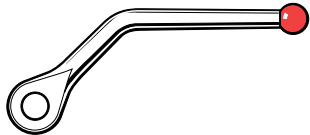
Part number	A-5004-7598	A-5004-7603	A-5004-7604	A-5004-7621	*A-5003-0661	A-5004-7624	A-5004-6723
	Stainless steel	Stainless steel	Stainless steel	Silver steel	Silver steel	Silver steel	Silver steel
For pack of ten	—	—	—	—	A-5004-1865	A-5004-1867	A-5004-1869
Length mm (in.)	8.0 (0.32)	8.0 (0.32)	10.0 (0.40)	12.0 (0.48)	15.2 (0.60)	9.0 (0.36)	16.0 (0.63)
Mass grams	1.8	1.4	1.5	2.7	4.6	1.5	2.1
For use on	LP2	LP2	LP2	MP10	TS27R	HPMA	HPMA
	—	—	—	MP12	—	HPRA	HPRA
	—	—	—	RMP60	—	HPPA	HPPA
	—	—	—	OMP60	—	—	—
	—	—	—	MP3	—	—	—
	—	—	—	MP11	—	—	—
							

Use P-TL09-0003
to tighten

* Please note: If you require the full TS27R break stem kit, please order A-5003-5171.

Part number	A-5004-7616	A-5004-7618	A-5004-7619	A-5004-7620	A-5004-7622
	M3	M3	M3	M4	M4
	Silver steel	Silver steel	Silver steel	Silver steel	Silver steel
Length mm (in.)	13.3 (0.52)	22.3 (0.88)	30.3 (1.19)	13.5 (0.53)	19.0 (0.75)
Mass grams	2.43	3.6	4.5	1.37	2.2
For use on	TS20	TS20	TS20	RP1/RP2	TSA
					

Cranked styli

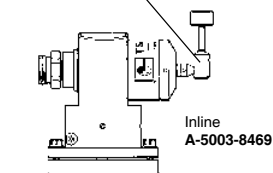
Part number	A-5000-5302	A-5000-5307	A-5000-6620	A-5000-7580
	M4	M4	M4	M4
	Tungsten steel	Tungsten steel	Tungsten steel	Tungsten steel
Length mm (in.)	32.0 (1.26)	21.6 (0.85)	27.4 (1.08)	38.8 (1.53)
Mass grams	3.8	3.85	4.7	2.5
For use on	LP2	LP2	LP2	LP2
				

TS27R styli – parallel shafted (not M4) – not compatible with TS27 probes

Part number	A-2008-0382 Tungsten carbide	A-2008-0384 Ceramic
Overall length mm (in.)	23.0 (0.91)	22.0 (0.87)
Mass grams	12.1	7.1

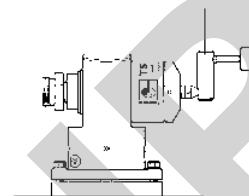
Stylus conversion kit for TS27R to allow horizontal machining applications (A-2008-0448)

Stylus holder assembly
A-2008-0389



Vertical machining applications

Stylus holder
A-5004-7617*



Horizontal machining applications

* Order also requires 2 x P-SC13-0404

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M2
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M3
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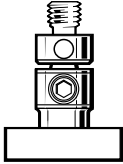
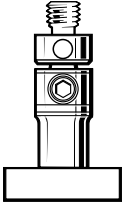
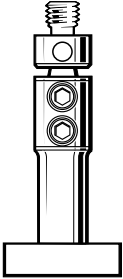
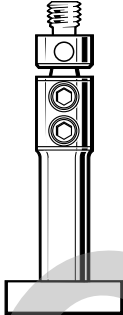
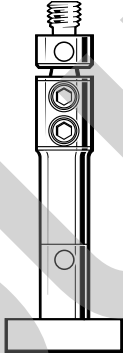
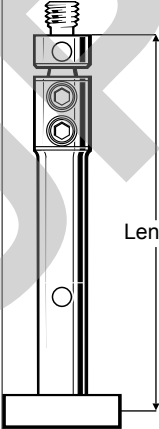
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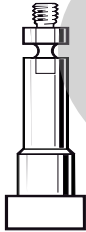
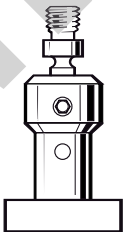
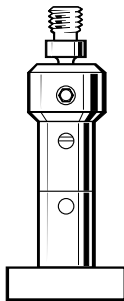
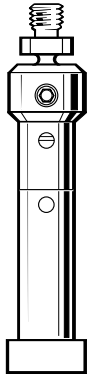
M5
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Tool datuming styli

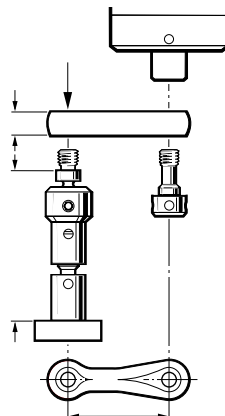
Part number	A-5000-3212 Stainless steel	A-5000-6701 Stainless steel	A-5000-6713 Aluminum	A-5000-6403 Stainless steel
Overall length mm (in.)	53.0 (2.09)	43.0 (1.70)	96.5 (3.80)	32.5 (1.28)
Stem dia. mm (in.)	4.5 (0.18)	4.5 (0.18)	7.5 (0.30)	5.4 (0.22)
Mass grams	4.5	4.3	21.9	11.0

Tool datuming styli - continued

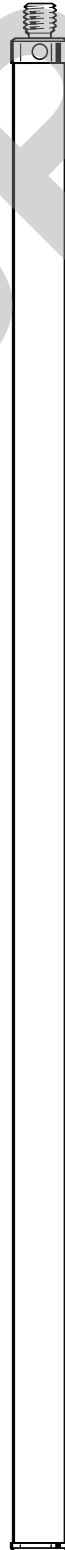
Part number	A-2197-0157 Tungsten steel	A-2197-0158 Tungsten steel	A-2197-0159 Tungsten steel	A-2197-0160 Tungsten steel	A-2197-0161 Tungsten steel	A-2197-0162 Tungsten steel
Length mm (in.)	14.2 (0.56)	19.5 (0.77)	29.5 (1.16)	34.5 (1.36)	39.5 (1.55)	49.5 (1.95)
Mass grams	14.86	16.0	20.0	20.7	21.8	23.5
For use on	HPPA	HPPA	HPPA	HPPA	HPPA	HPPA
	HPMA	HPMA	HPMA	HPMA	HPMA	HPMA
	HPRA	HPRA	HPRA	HPRA	HPRA	HPRA
	RP3	RP3	RP3	RP3	RP3	RP3
						

Part number	A-2008-0601	A-2008-0602	A-2008-0603	A-2048-2050	A-2048-2051	A-2116-0140	A-2116-0141
	M3	M3	M3	M3	M3	M3	M3
	Tungsten steel	Tungsten steel	Tungsten steel	Tungsten steel	Tungsten steel	Tungsten steel	Tungsten steel
Length mm (in.)	15.4 (0.61)	24.0 (0.96)	32.4 (1.27)	23.2 (0.91)	32.0 (1.26)	32.0 (1.26)	42.0 (1.65)
Mass grams	9.1	8.0	8.95	18.14	20.64	13.56	16.05
For use on	TS20	TS20	TS20	HPA (M6 MTG)	HPA (M6 MTG)	TSA	TSA
							

Part number	A-2116-0142
Length mm (in.)	30.3 (0.40)
Mass grams	22.6
For use on	TSA



Stylus extensions

Part number	A-5004-7599 Stainless steel	A-5004-7600 Stainless steel	A-5004-7601 Stainless steel	A-5004-7602 Stainless steel	A-5000-7754 Ceramic	A-5000-7755 Ceramic	A-5000-7727 Ceramic	A-5003-0587 Ceramic
Length mm (in.)	10.0 (0.40)	15.0 (0.60)	20.0 (0.79)	30.0 (1.19)	30.0 (1.19)	50.0 (1.97)	100.0 (3.94)	200.0 (7.87)
Stem dia. mm (in.)	7.0 (0.28)	7.0 (0.28)	7.0 (0.28)	7.0 (0.28)	7.4 (0.29)	7.4 (0.29)	7.4 (0.29)	7.4 (0.29)
Mass grams	2.4	3.7	4.8	7.4	5.1	6.7	10.6	18.4
								

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M2
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M3
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Tungsten carbide styli (stainless steel stems)

Part number	A-5000-7670	A-500-7671	A-5000-7672	A-5000-9685	A-5000-9697
A Ball dia. mm (in.)	5.0 (0.20)	5.0 (0.20)	5.0 (0.20)	5.0 (0.20)	3.0 (0.12)
B Length mm (in.)	50.0 (1.97)	100.0 (3.94)	150.0 (5.91)	54.0 (2.12)	55.0 (2.17)
C Stem dia. mm (in.)	4.5 (0.18)	4.5 (0.18)	4.5 (0.18)	3.9 (0.15)	1.9 (0.07)
D EWL* mm (in.)	35.0 (1.38)	85.0 (3.35)	135.0 (5.31)	50.0 (1.97)	25.0 (0.99)
Mass grams	6.2	11.9	18.2	6.9	3.8

Stylus

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M2

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M4

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M5

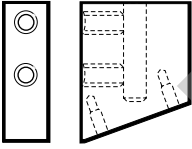
ปลายสัมผัส



Walter styli M1.4 thread styli

Part number	A-5003-3814	A-5003-3045	A-5003-3042	A-5000-9860	A-5003-1699
	M1.4	M1.4	M1.4	M1.4	M1.4
Stem material	Tungsten carbide	Stainless steel	Tungsten carbide	Tungsten carbide	Stainless steel
Ball material	Tungsten carbide	Tungsten carbide	Ruby	Tungsten carbide	Tungsten carbide
A Ball dia. mm (in.)	0.5 (0.02)	1.0 (0.04)	0.5 (0.02)	1.0 (0.04)	0.6 (0.02)
B Length mm (in.)	12.5 (0.49)	25.0 (0.98)	12.5 (0.49)	13.0 (0.51)	12.75 (0.50)
D EWL* mm (in.)	1.5 (0.059)	1.5 (0.059)	3.0 (0.12)	1.0 (0.04)	1.0 (0.04)
Mass grams	0.2	1.1	0.19	0.22	0.41
					

M1.4 thread styli

Part number	A-5003-1448	A-5000-9724
D3 MTG	2 x M1.4 adaptor 20°	M1.4 adaptor 20°
Mass grams	9.73	8.31
		

Crash protection device

Part number	A-5004-7615
Length mm (in.)	16.0 (0.63)
Mass grams	2
	

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M2
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ปลายสัมผัส M5

M5 threaded stylus range

Ruby ball styli (stainless steel stems)

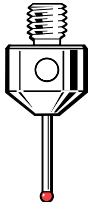
Part number	A-5003-5201	A-5003-5202	A-5003-5203
A Ball dia. mm (in.)	0.3 (0.012)	0.5 (0.02)	0.7 (0.03)
B Length mm (in.)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)
C Stem dia. mm (in.)	0.2 (0.01)	0.4 (0.02)	0.5 (0.02)
D EWL * mm (in.)	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)
Mass grams	6.5	6.5	6.4
20 mm range			

Part number	A-5003-5225	A-5003-5226	A-5003-5227
A Ball dia. mm (in.)	0.3 (0.012)	0.5 (0.02)	0.7 (0.03)
B Length mm (in.)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)
C Stem dia. mm (in.)	0.2 (0.01)	0.4 (0.02)	0.5 (0.02)
D EWL * mm (in.)	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)
Mass grams	15.79	15.79	15.79
50 mm range			

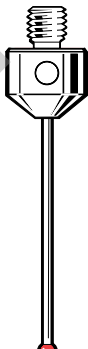
	A-5003-5211	A-5003-5212	A-5003-5213
	0.3 (0.012)	0.5 (0.02)	0.7 (0.03)
	30.0 (1.19)	30.0 (1.19)	30.0 (1.19)
	0.2 (0.01)	0.4 (0.02)	0.5 (0.02)
	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)
	8.95	8.95	8.98
20 mm range			

	A-5003-5240	A-5003-5241	A-5003-5242
	0.3 (0.012)	0.5 (0.02)	0.7 (0.03)
	75.0 (2.96)	75.0 (2.96)	75.0 (2.96)
	0.2 (0.01)	0.4 (0.02)	0.5 (0.02)
	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)
	23.84	23.84	23.84
75 mm range			

Ruby ball styli (tungsten carbide stems)

Part number	Part number						
Ruby	A-5003-5204	A-5003-5205	A-5003-5206	A-5003-5207	A-5003-5208	A-5003-5209	A-5003-5210
Silicon nitride	—	—	A-5003-5732	—	—	A-5003-5733	—
Zirconia	—	—	A-5003-5746	—	—	A-5003-5747	—
A Ball dia. mm (in.)	1.0 (0.04)	1.5 (0.06)	2.0 (0.08)	2.5 (0.10)	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)
B Length mm (in.)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)
C Stem dia. mm (in.)	0.7 (0.03)	1.0 (0.04)	1.0 (0.04)	1.5 (0.06)	2.0 (0.08)	2.0 (0.08)	3.0 (0.12)
D EWL* mm (in.)	5.0 (0.20)	11.0 (0.44)	11.0 (0.44)	11.0 (0.44)	11.0 (0.44)	11.9 (0.47)	11.5 (0.45)
Mass grams	6.52	4.68	4.70	4.84	5.12	5.19	6.06
20 mm range							
							

Part number	A-5003-5214	A-5003-5215	A-5003-5216	A-5003-5217	A-5003-5218	A-5003-5219	A-5003-5220
A Ball dia. mm (in.)	1.0 (0.04)	1.5 (0.06)	2.0 (0.08)	2.5 (0.10)	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)
B Length mm (in.)	30.0 (1.19)	30.0 (1.19)	30.0 (1.19)	30.0 (1.19)	30.0 (1.19)	30.0 (1.19)	30.0 (1.19)
C Stem dia. mm (in.)	0.7 (0.03)	1.0 (0.04)	1.0 (0.04)	1.5 (0.06)	2.0 (0.08)	2.0 (0.08)	3.0 (0.12)
D EWL* mm (in.)	5.0 (0.20)	12.0 (0.48)	21.0 (0.83)	21.0 (0.83)	21.0 (0.83)	21.9 (0.86)	21.5 (0.85)
Mass grams	9.01	7.28	4.81	5.14	5.58	5.64	7.10
30 mm range							
							

Part number	A-5003-5221	A-5003-5222	A-5003-5223	A-5003-5224
A Ball dia. mm (in.)	1.5 (0.06)	2.0 (0.08)	2.5 (0.10)	3.0 (0.12)
B Length mm (in.)	40.0 (1.58)	40.0 (1.58)	40.0 (1.58)	40.0 (1.58)
C Stem dia. mm (in.)	1.0 (0.04)	1.0 (0.04)	1.5 (0.06)	2.0 (0.08)
D EWL* mm (in.)	22.0 (0.87)	31.0 (1.23)	31.0 (1.23)	31.0 (1.23)
Mass grams	7.39	4.93	5.40	6.04
40 mm range				
				

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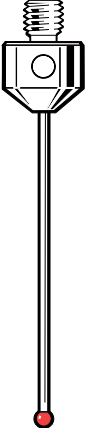
M2
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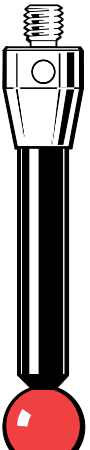
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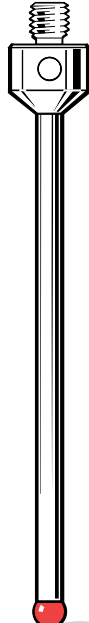
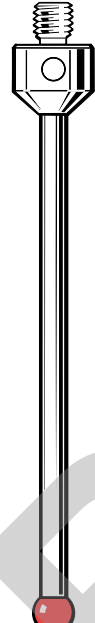
Ruby ball styli (<5 mm ball diameter) (tungsten carbide stems)

Part number	A-5003-5228	A-5003-5229	A-5003-5230	A5003-5231	A-5003-5233	A-5003-5232	A-5003-5234	A-5003-5235
A Ball dia. mm (in.)	1.0 (0.04)	1.5 (0.06)	2.0 (0.08)	2.0 (0.08)	2.5 (0.10)	2.5 (0.10)	3.0 (0.12)	4.0 (0.16)
B Length mm (in.)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)
C Stem dia. mm (in.)	0.7 (0.03)	1.0 (0.04)	1.0 (0.04)	1.0 (0.04)	1.5 (0.06)	2.0 (0.08)	2.0 (0.08)	2.0 (0.08)
D EWL* mm (in.)	5.0 (0.20)	5.0 (0.20)	41.0 (1.62)	5.0 (0.20)	5.0 (0.20)	41.0 (1.62)	41.0 (1.62)	41.9 (1.65)
Mass grams	15.81	14.82	5.05	14.85	14.94	6.48	6.50	6.55
50 mm range								

Ruby ball styli (≥5 mm ball diameter)

Ball material	Part number			
Ruby	A-5003-5236	A-5003-5237	A-5003-5238	A-5003-5239
Silicon nitride	—	A-5003-5734	—	—
Zirconia	—	A-5003-5748	—	—
	Tungsten carbide	Carbon fiber	Carbon fiber	Carbon fiber
A Ball dia. mm (in.)	5.0 (0.20)	6.0 (0.24)	8.0 (0.32)	10.0 (0.40)
B Length mm (in.)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)
C Stem dia. mm (in.)	3.0 (0.12)	4.0 (0.16)	6.0 (0.24)	6.0 (0.24)
D EWL* mm (in.)	41.5 (1.63)	39.5 (1.56)	39.5 (1.56)	44.5 (1.75)
Mass grams	9.19	6.10	7.96	8.91
50 mm range				

Ruby ball styli (1 mm – 10 mm ball diameter)

Part number	A-5003-5243 Tungsten carbide	A-5003-5244 Tungsten carbide	A-5003-5248 Tungsten carbide	A-5003-5249 Tungsten carbide	A-5003-5250 Carbon fiber	A-5003-5251 Carbon fiber	A-5003-5252 Carbon fiber
A Ball dia. mm (in.)	1.0 (0.04)	1.5 (0.06)	4.0 (0.16)	5.0 (0.20)	6.0 (0.24)	8.0 (0.32)	10.0 (0.40)
B Length mm (in.)	75.0 (2.96)	75.0 (2.96)	75.0 (2.96)	75.0 (2.96)	75.0 (2.96)	75.0 (2.96)	75.0 (2.96)
C Stem dia. mm (in.)	0.7 (0.03)	1.0 (0.04)	3.0 (0.12)	3.0 (0.12)	4.0 (0.16)	6.0 (0.24)	6.0 (0.24)
D EWL* mm (in.)	5.0 (0.20)	5.0 (0.20)	66.0 (2.60)	66.0 (2.60)	65.1 (2.56)	64.5 (2.54)	69.5 (2.74)
Mass grams	23.86	23.90	11.61	11.80	6.59	9.06	10.01
75 mm range							

Stylus
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M2
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M3
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M4
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M5
ปลายสัมผัส

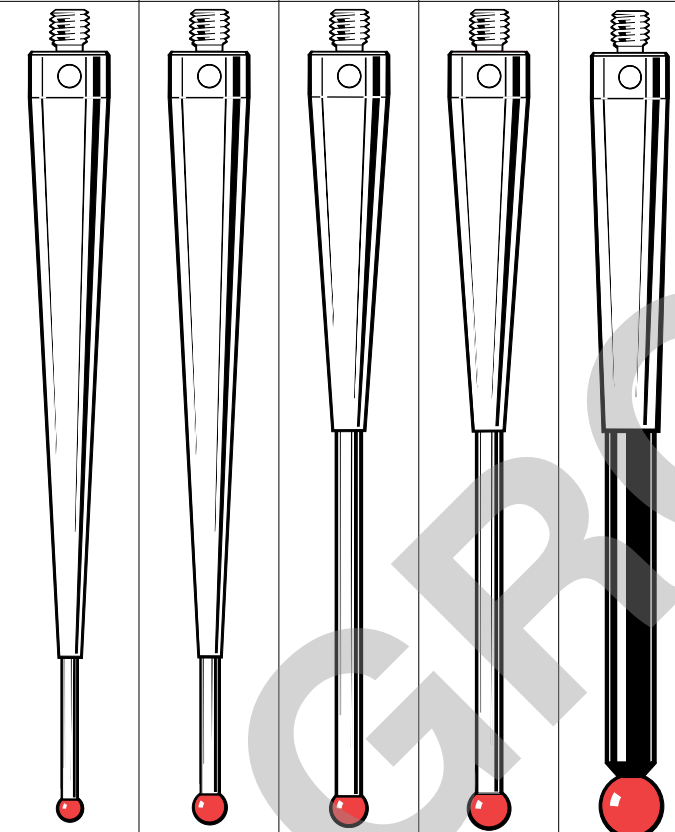
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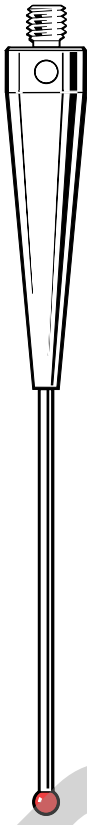
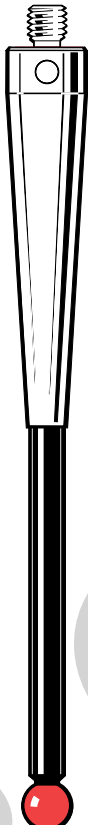
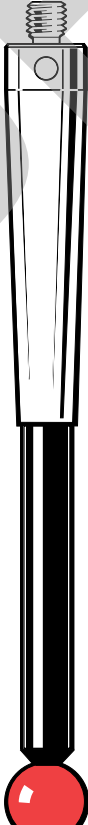
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Ruby ball styli (≤50 mm EWL)

Part number	A-5003-5253 Tungsten carbide	A-5003-5255 Tungsten carbide	A-5003-5256 Tungsten carbide	A-5003-5257 Tungsten carbide	A-5003-5261 Carbon fiber			
A Ball dia. mm (in.)	3.0 (0.12)	4.0 (0.16)	4.0 (0.16)	5.0 (0.20)	8.0 (0.32)			
B Length mm (in.)	100.0 (3.94)	100.0 (3.94)	100.0 (3.94)	100.0 (3.94)	100.0 (3.94)			
C Stem dia. mm (in.)	2.0 (0.08)	2.0 (0.08)	3.0 (0.12)	3.0 (0.12)	6.0 (0.24)			
D EWL * mm (in.)	20.0 (0.79)	30.5 (1.20)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)			
Mass grams	25.71	25.75	23.07	23.31	22.97			
Stylus ปลายสัมผัส M2 ปลายสัมผัส M3 ปลายสัมผัส M4 ปลายสัมผัส M5 ปลายสัมผัส 100 mm range 								

Ruby ball styli (>50 mm EWL)

Ball material	Part number						
Ruby	A-5003-5254	A-5003-5259	A-5003-5258	A-5003-5260	A-5003-5262	A-5003-5264	A-5003-5263
Silicon nitride	—	A-5003-5735	—	—	—	—	—
Zirconia	—	A-5003-5749	—	—	—	—	—
	Tungsten carbide	Carbon fiber	Tungsten carbide	Carbon fiber	Carbon fiber	Carbon fiber	Carbon fiber
A Ball dia. mm (in.)	3.0 (0.12)	6.0 (0.24)	5.0 (0.20)	6.0 (0.24)	8.0 (0.32)	10.0 (0.40)	10.0 (0.40)
B Length mm (in.)	100.0 (3.94)	100.0 (3.94)	100.0 (3.94)	100.0 (3.94)	100.0 (3.94)	100.0 (3.94)	100.0 (3.94)
C Stem dia. mm (in.)	1.5 (0.06)	4.0 (0.16)	3.0 (0.12)	4.0 (0.16)	6.0 (0.24)	6.0 (0.24)	6.0 (0.24)
D EWL* mm (in.)	55.0 (2.17)	58.9 (2.32)	91.0 (3.59)	90.1 (3.55)	89.5 (3.52)	94.5 (3.72)	95.5 (3.76)
Mass grams	16.30	19.66	14.40	7.08	10.17	11.11	23.91
100 mm range							

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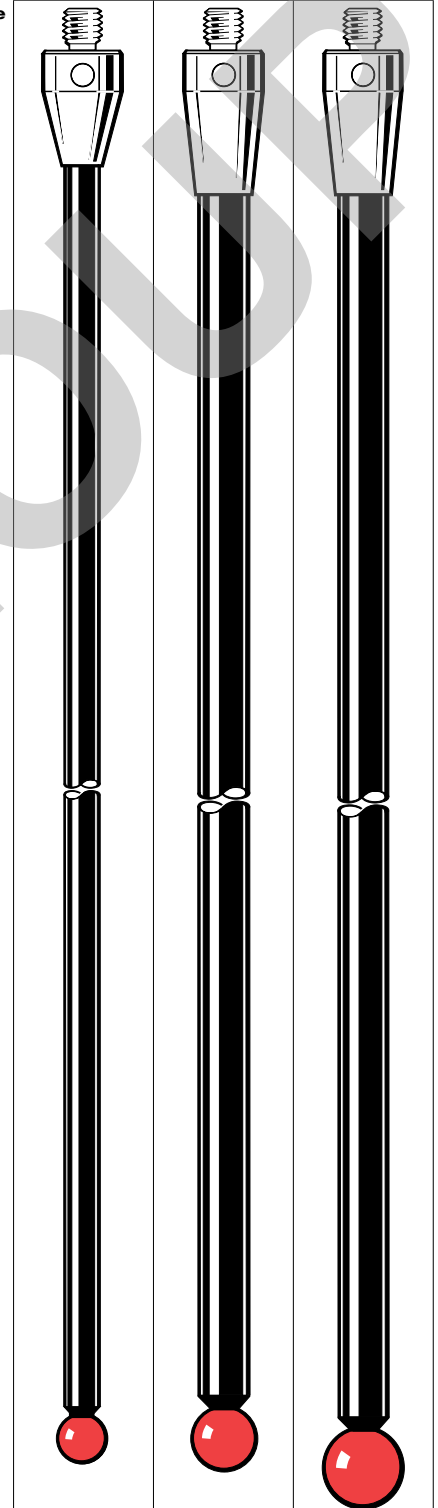
Ruby ball styli (carbon fiber stems)

Part number	A-5003-5265	A-5003-5266	A-5003-5267
A Ball dia. mm (in.)	6.0 (0.24)	8.0 (0.32)	10.0 (0.40)
B Length mm (in.)	150.0 (5.91)	150.0 (5.91)	150.0 (5.91)
C Stem dia. mm (in.)	4.0 (0.16)	6.0 (0.24)	6.0 (0.24)
D EWL* mm (in.)	137.0 (5.39)	135.0 (5.31)	144.5 (5.69)
Mass grams	9.09	13.71	14.66



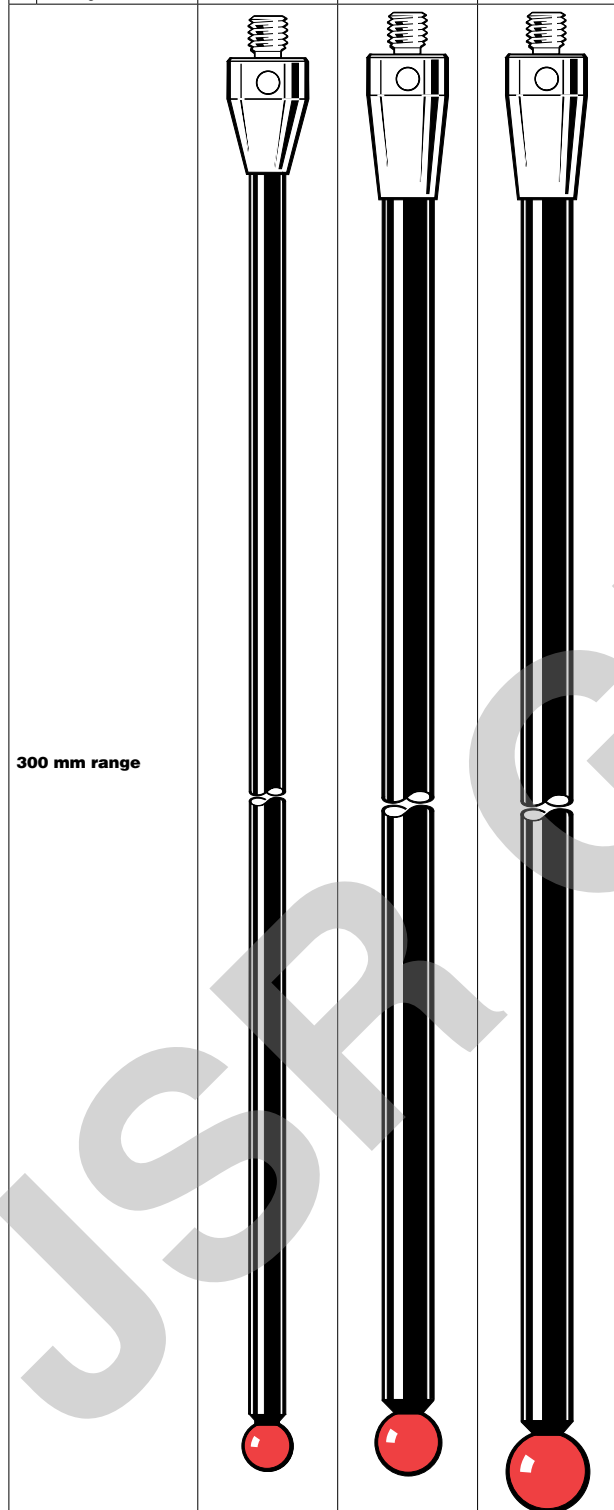
Part number	A-5003-5268	A-5003-5269	A-5003-5270
A Ball dia. mm (in.)	6.0 (0.24)	8.0 (0.32)	10.0 (0.40)
B Length mm (in.)	200.0 (7.88)	200.0 (7.88)	200.0 (7.88)
C Stem dia. mm (in.)	4.0 (0.16)	6.0 (0.24)	6.0 (0.24)
D EWL* mm (in.)	187.0 (7.36)	180.0 (7.09)	194.5 (7.66)
Mass grams	10.07	15.92	16.87

200 mm range



Ruby ball styli (carbon fiber stems)

Part number	A-5003-5271	A-5003-5272	A-5003-5273
A Ball dia. mm (in.)	6.0 (0.24)	8.0 (0.32)	10.0 (0.40)
B Length mm (in.)	300.0 (11.82)	300.0 (11.82)	300.0 (11.82)
C Stem dia. mm (in.)	4.0 (0.16)	6.0 (0.24)	6.0 (0.24)
D EWL* mm (in.)	287.0 (11.30)	280.0 (11.03)	294.5 (11.59)
Mass grams	12.02	20.33	21.28



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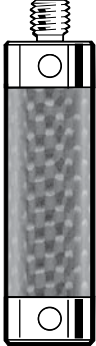
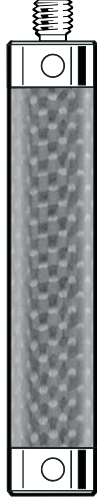
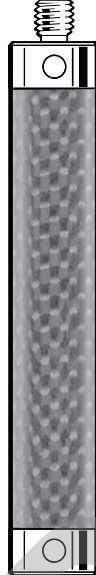
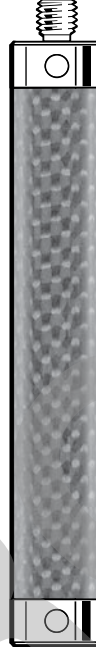
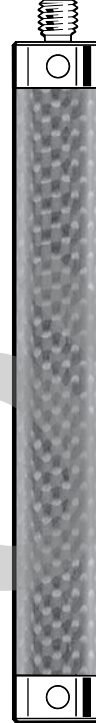
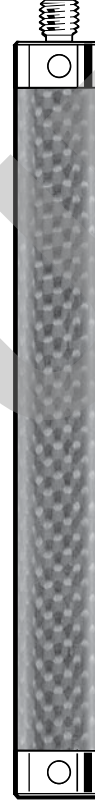
M2
ปลายสัมผัส

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ปลายสัมผัส

M5
ปลายสัมผัส

Stylus extensions – thermo stable carbon fiber stems, titanium ends

Part number	A-5555-0647	A-5555-0648	A-5555-0649	A-5555-0623	A-5555-0650	A-5555-0651	A-5555-0652
Length mm (in.)	40.0 (1.58)	50.0 (1.97)	60.0 (2.37)	70.0 (2.76)	80.0 (3.15)	90.0 (3.55)	100.0 (3.94)
Stem dia. mm (in.)	11.0 (0.44)	11.0 (0.44)	11.0 (0.44)	11.0 (0.44)	11.0 (0.44)	11.0 (0.44)	11.0 (0.44)
Mass grams	7.6	8.3	9.0	9.7	10.4	11.1	11.8
							

Stylus

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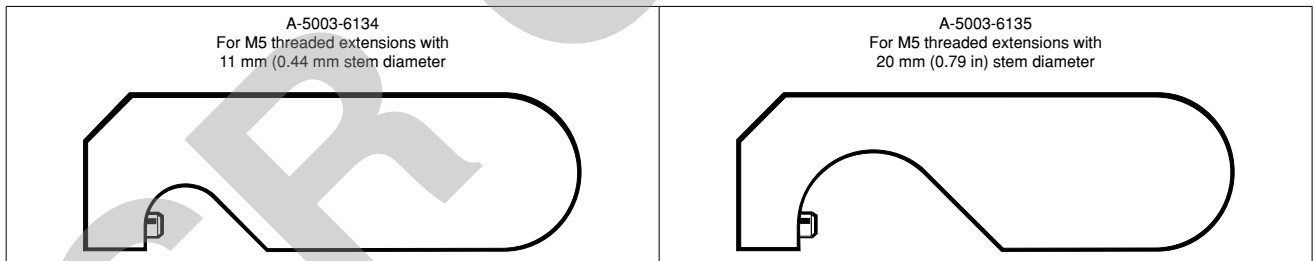
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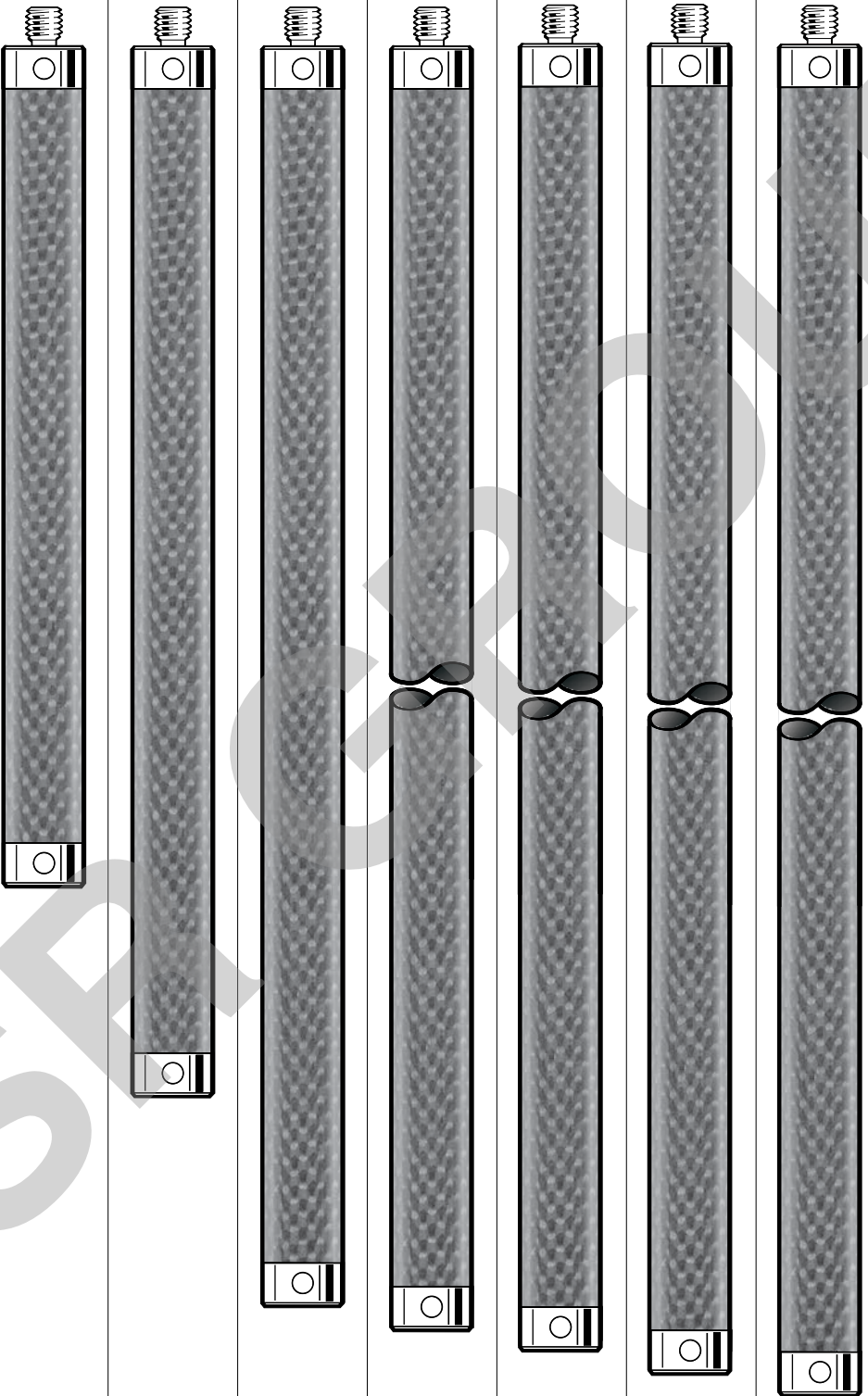
ปลายสัมผัส

M5 extension tools



Note: These tools are designed to fit stylus extensions for Renishaw probes without causing any internal damage.

Stylus extensions - thermo stable carbon fiber stems, titanium ends

Part number	A-5555-0425	A-5555-0424	A-5555-0653	A-5555-0654	A-5555-0655	A-5555-0642	A-5555-0656
Length mm (in.)	120.0 (4.73)	150.0 (5.91)	180.0 (7.09)	200.0 (7.88)	250.0 (9.85)	300.0 (11.82)	400.0 (15.76)
Stem dia. mm (in.)	11.0 (0.44)	11.0 (0.44)	11.0 (0.44)	11.0 (0.44)	11.0 (0.44)	11.0 (0.44)	11.0 (0.44)
Mass grams	13.2	15.4	17.5	18.9	22.4	25.9	33.0
							

Stylus
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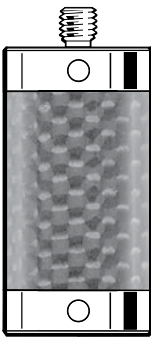
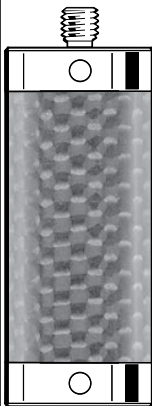
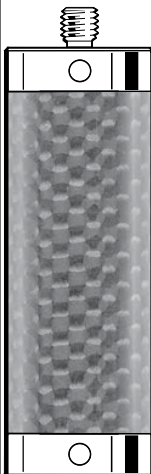
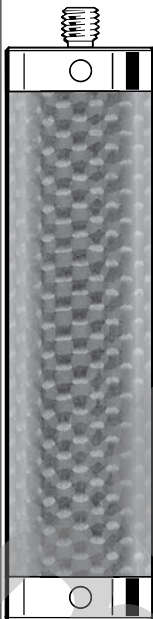
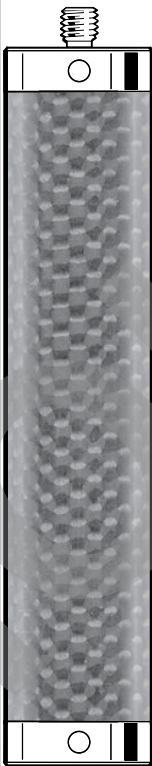
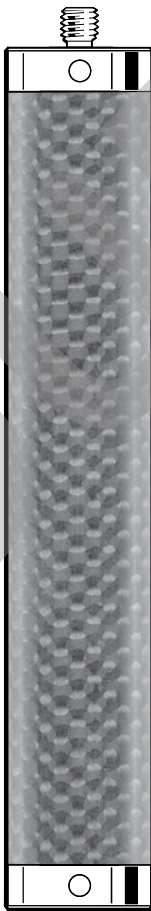
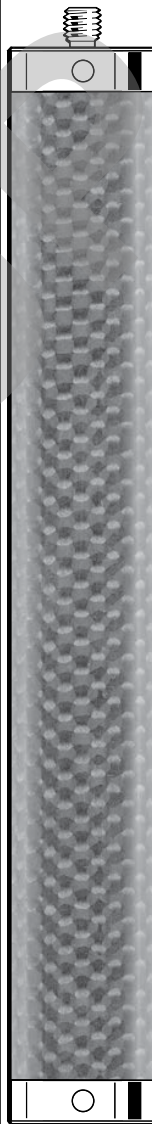
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Stylus extensions – thermo stable carbon fiber stems, titanium ends

Part number	A-5555-0620	A-5555-0657	A-5555-0658	A-5555-0621	A-5555-0659	A-5555-0660	A-5555-0661
Length mm (in.)	40.0 (1.58)	50.0 (1.97)	60.0 (2.37)	80.0 (3.15)	100.0 (3.94)	120.0 (4.73)	150.0 (5.91)
Stem dia. mm (in.)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)
Mass grams	23.8	25.1	26.5	29.3	32.1	34.9	39.0
							

Stylus

ปลายสัมผัส

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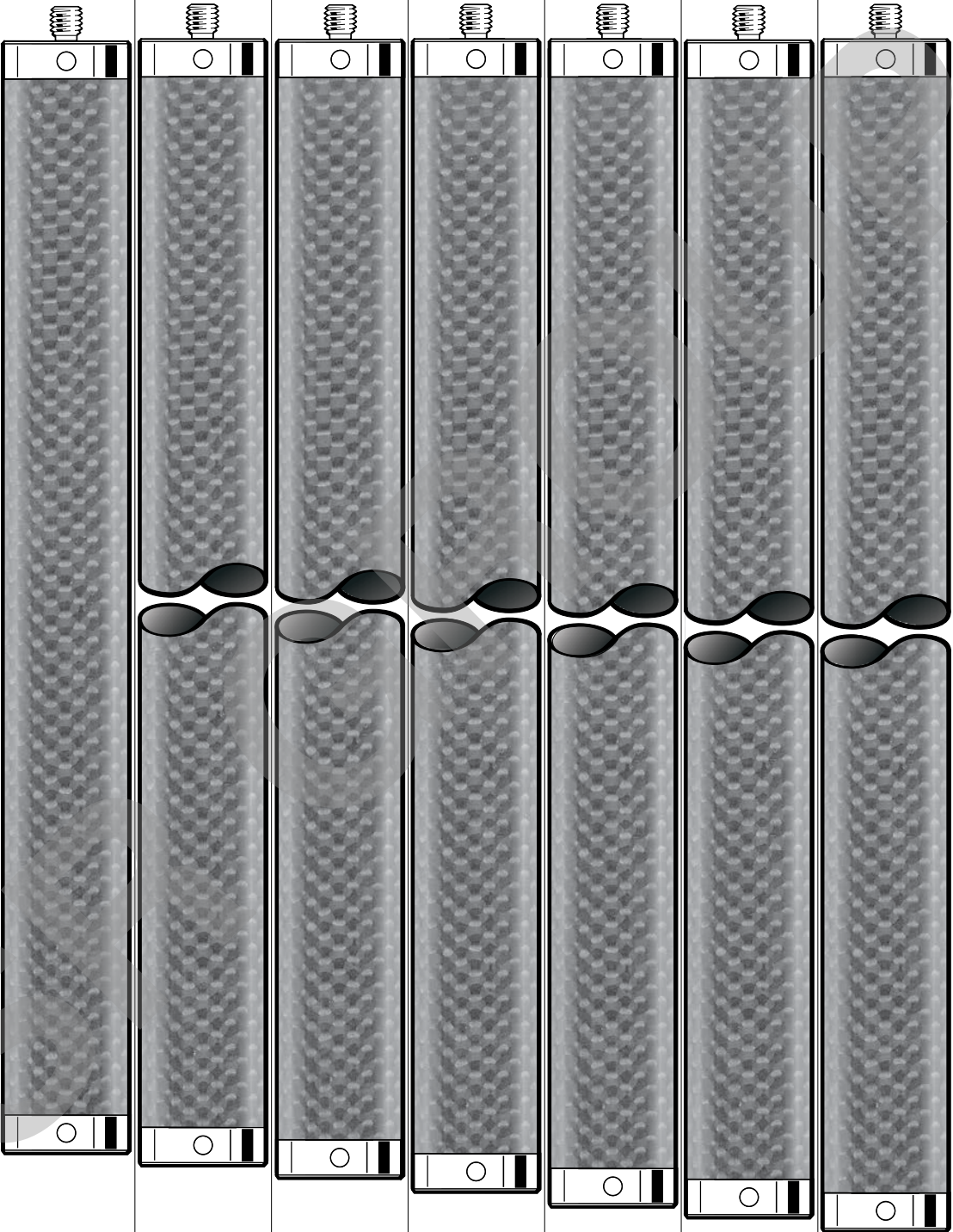
M4

ปลายสัมผัส

M5

ปลายสัมผัส

Stylus extensions – thermo stable carbon fiber stems, titanium ends

Part number	A-5555-0662	A-5555-0663	A-5555-0427	A-5555-0664	A-5555-0665	A-5555-0667	A-5555-0668
Length mm (in.)	180.0 (7.09)	200.0 (7.88)	250.0 (9.85)	300.0 (11.82)	400.0 (15.76)	500.0 (19.70)	600.0 (23.64)
Stem dia. mm (in.)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)
Mass grams	43.2	46.0	52.9	59.9	73.8	87.7	101.5
							

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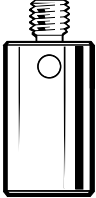
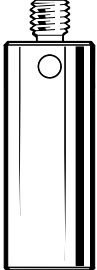
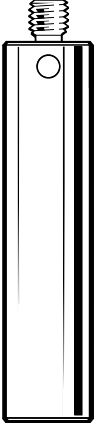
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Stylus extensions – stainless steel

Part number	A-5555-0142	A-5555-0140	A-5555-0669	A-5555-0670	A-5555-0136
Length mm (in.)	10.0 (0.40)	20.0 (0.79)	30.0 (1.19)	50.0 (1.97)	100.0 (3.94)
Stem dia. mm (in.)	11.0 (0.44)	11.0 (0.44)	11.0 (0.44)	11.0 (0.44)	11.0 (0.44)
Mass grams	6.0	13.0	20.0	34.8	73.0
					

Stylus

ปลายสัมผัส

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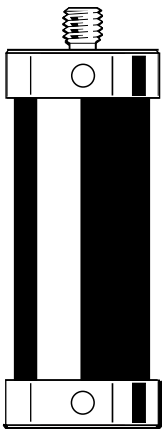
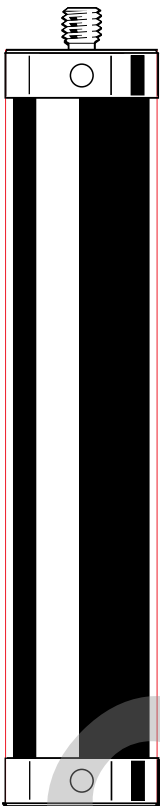
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M5

ปลายสัมผัส

Stylus extensions – aluminum

Part number	A-5555-0671	A-5555-0127	A-5555-0125
Length mm (in.)	50.0 (1.97)	100.0 (3.94)	200.0 (7.88)
Stem dia. mm (in.)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)
Mass grams	47.2	50.0	85.0
			

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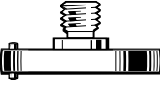
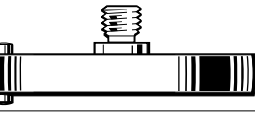
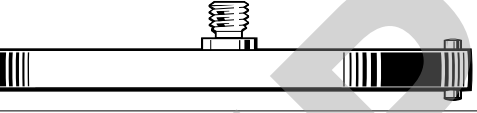
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ปลายสัมผัส

Disk styli

Part number	A-5003-5288 Silver steel	A-5003-5289 Silver steel	A-5003-5290 Silver steel	A-5003-5291 Silver steel
Disk diameter mm (in.)	12.0 (0.48)	21.0 (0.83)	35.0 (1.38)	63.5 (2.51)
Disk depth mm (in.)	3.0 (0.12)	3.0 (0.12)	5.0 (0.20)	5.0 (0.20)
Roller depth mm (in.)	5.0 (0.20)	5.0 (0.20)	8.0 (0.32)	8.0 (0.32)
Mass grams	2.52	5.23	14.00	51.00
				

Hemispherical styli

Part number	A-5003-5275 Ceramic	A-5003-5276 Ceramic	A-5003-5277 Ceramic
Ball diameter mm (in.)	16.0 (0.63)	22.0 (0.87)	30.0 (1.19)
Length mm (in.)	19.5 (0.77)	20.5 (0.81)	24.5 (0.96)
Mass grams	7.0	14.0	19.7
	