

精密測量好幫手!

Good Helper To Precision Measurement





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測針對精密測量的重要性

THE IMPORTANCE OF CMM STYLI FOR PRECISION MEASUREMENT

隨着工業對制造復雜零件日益多樣化的需求，測量系統需要不斷提升以適應需求。

高速，高性能的掃描系統則能保持測量機在極短的時間內實現極高精度的測量。CNCI 將幫助你最大化生產力同時保持最高的品質。

成功的測量在很大程度上取決於探頭的探測能力以及確保探頭接觸的準確性。在CNCI，我們已利用我們在探頭和探針設計的專業知識，以開發一個CMM和機床測針的綜合範圍來為您提供最可能大的精度。

As industry has developed its requirement for increasingly diverse and complex manufactured parts, inspection systems have had to work hard to keep up. High speed and high performance measuring machine scanning system can guarantee in a very short period of time to achieve very accurate measurements. CNCI help you maximise your productivity and maintain the highest quality. Successful gauging depends very much on the ability of the probe's stylus to access a feature and then maintain accuracy at the point of contact. At CNCI, we have used our expertise in probe and stylus design to develop a comprehensive range of CMM and machine tool styli to offer you the greatest possible precision.

什麼是測針?

What is a stylus?

測針是測量系統的一部分，它與被測量部件連接，使測頭機械產生位移。所生成的信號可以得出測量結果，根據被測量工件的特徵來決定測針的種類和大小。在所有情況下，測針的最大剛度和尖端測球的完美度是至關重要的。

為了達到這一點，CNCI的測杆都是按照嚴格的標準在數控機床上生產的。我們格外注意，來確保測針的剛性，同時測針質量經過最優化處理以適用於CNCI的各種測頭。

CNCI原產測球是按照最高標準制造，保證與測杆的連接能達到最佳的完整性。

如果您使用的測球圓度差、位置不正、螺紋公差大，或者因為設計不當在測量時產生過度的變形，則很容易降低測量效果。為了確保采集數據的完整性，請務必從CNCI原產的全系列測針中指定和選用測針。

A stylus is that part of the measuring system which makes contact with the component, causing the probe's mechanism to displace.

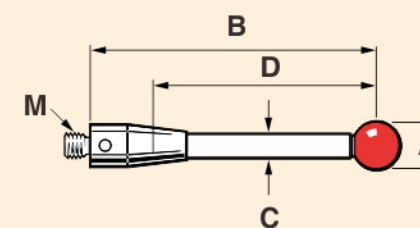
The generated signal enables a measurement to be taken. The feature to be inspected dictates the type and size of stylus used.

In all cases, however, maximum rigidity of the stylus and perfect sphericity of the tip are vital.

To achieve this, CNCI's stylus stems are produced on CNC machine tools to exacting standards. Great care is taken to ensure that location faces give maximum stiffness whilst stylus mass is optimised to suit CNCI's range of probes.

Genuine CNCI stylus balls are produced to the highest standards and are bonded to the stems in such a way as to ensure maximum joint integrity.

The performance of your gauging can easily be degraded if you use a stylus with poor ball roundness, poor ball location, bad thread fit or a compromised design that allows excessive bending during measurement. To ensure the integrity of the data you gather, make certain that you specify and use a stylus from the comprehensive range of genuine CNCI styli.



- | | |
|-----------|---------------------|
| A. 測球直徑 | A. Ball Dia. |
| B. 總長 | B. Overall Length |
| C. 測杆直徑 | C. Stem Dia. |
| D. 有效工作長度 | D. Effective Length |
| M. 測杆連接螺紋 | M. Thread Size |

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測針的選擇?

Choosing a stylus?

為保證接觸點的精度，我們建議您：

- 選用短測針：

測針彎曲或變形量越大，精度越低

使用盡可能短的測針是您最好的選擇

- 減少接頭：

每增加一個測針與加長杆，就會增加潛在的彎曲和偏差。在您使用中盡可能減少測針的組件數。

- 選用的測球直徑盡量大：

1. 這樣能增大測球/測杆的距離從而減少由于碰撞測杆所引起的錯觸率。

2. 直徑大的測球能減少被檢測組件表面光潔度的影響。

To maintain accuracy at the point of contact we recommend that you:

- Choose short styli

The more that a stylus bends or deflects, the lower the accuracy.

Use as short as possible stylus is your best option.

- Minimise joints

Every time you join styli and extensions, you introduce potential bending and deflection points. Try, wherever possible, to reduce the number of components in your application.

- Choose the ball as large as possible

1. it maximises your ball/stem clearance thereby reducing the chances for false triggers caused by 'shanking out' on the stylus stem

2. the larger ball can reduce the effect of the surface finish of the component being inspected.

測杆材料

Stem material

不銹鋼

不銹鋼製造的測杆被廣泛用于球/端部直徑為2mm或2mm以上、最長為30mm的測針。

在這個範圍內，一體式鋼杆提供最佳剛度與重量比，在測杆和螺紋之間采用一個接頭，可以提供足夠的球/杆間隙，又不降低剛性。

鎢鋼

鎢鋼杆最適合用于剛性大而直徑小的測杆，小直徑測杆是測球直徑為1mm及以下的測針所需要的，長度可達50mm。除此之外，由于杆與本體之間的接頭可能發生偏轉，重量可能成為問題而且剛性會降低。

陶瓷

對於測球直徑大于3mm，長度超過30mm的，陶瓷測杆所具有的剛性優于鋼制測杆，但是重量遠比鎢鋼輕。由于測杆在碰撞中會破碎，陶瓷測杆也可以為探頭提供額外的防撞保護。

碳纖維

碳纖維的材料有多種等級。不管是在拉伸還是扭曲的情況下，CNCI的材料結合了最優剛度特性，而且重量極低。碳纖維是一種惰性材料，這種特性與特殊樹脂基體相結合，在大多數極惡劣的機床環境下能夠提供優異的防護作用。

對於長度大于50mm的測杆，CNCI的材料是最大化剛度的理想材料。它是高精度應變儀探測技術的最佳測杆材料，具有優良的減震特性和可以忽略不計的熱膨脹系數。



- Stainless steel

Stylus stems manufactured from stainless steel are used widely for styli with ball/tip diameters of 2 mm or greater and with lengths up to 30 mm. Within this range, one-piece steel stems offer the optimum stiffness to weight ratio, giving adequate ball/stem clearance without compromising stiffness with a joint between the stem and threaded Body.

- Tungsten carbide

Tungsten carbide stems are best used for maximising stiffness with either small stem diameters required for ball diameters of 1 mm and below, or lengths up to 50 mm. Beyond this, weight can become a problem and stiffness is lost due to deflection at the stem to body joint.

- Ceramic

For ball diameters greater than 3 mm, and lengths over 30 mm, ceramic stems offer stiffness comparable to steel but are significantly lighter than tungsten carbide. Ceramic stemmed styli can also offer additional crash protection to your probe as the stem will shatter in a collision.

- Carbon fibre

There are many grades of carbon fibre materials. However, CNCI's material combines optimum stiffness characteristics, both longitudinally and in torsion, with extremely low weight. Carbon fibre is inert and this, combined with a special resin matrix, provides excellent protection in the most hostile of machine tool environments.

CNCI's material is ideal for maximising stiffness for styli above 50 mm in length. It is the optimum stem material for high accuracy strain gauge technology probes with excellent vibration damping characteristics and negligible co-efficient of thermal expansion.

M2螺紋測針系列 M2 Threaded Stylus

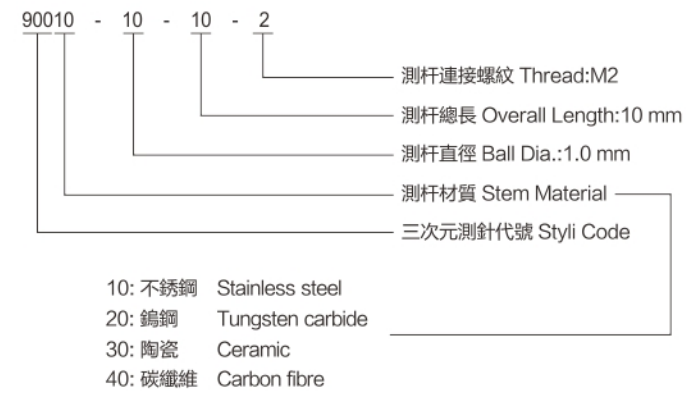
CNCI的測頭測量系統經過精心設計，選用CNCI的全系列測針，使性能最佳。

下列測頭全部使用M2螺紋的測針，但配備適合的轉接頭也可使用其它螺紋

CNCI's probing systems are designed to give optimum performance using styli from CNCI's comprehensive range. The following probes all use M2 threaded styli, however, with suitable adaptors, other thread sizes may be used.

-TP2 -TP20 -TP200

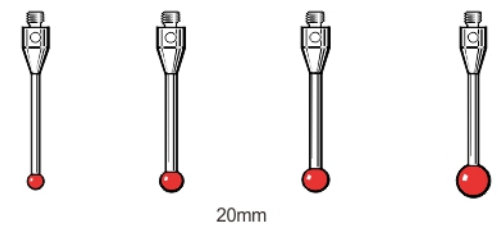
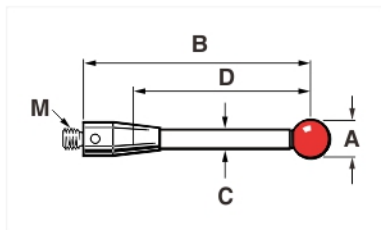
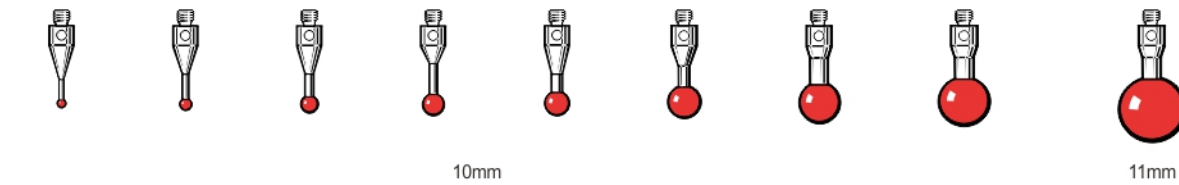
訂購編號說明 Order example



90010 Ruby Stylus Stainless Steel Stem

紅寶石球測針 (不銹鋼測杆)

M2螺紋測針系列 | M2 Threaded Stylus

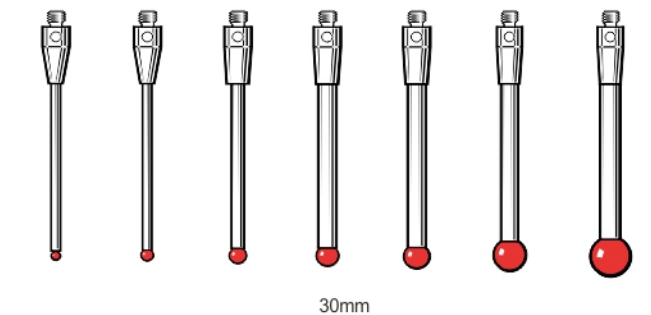
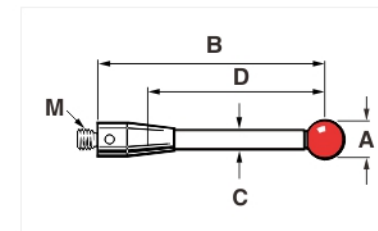
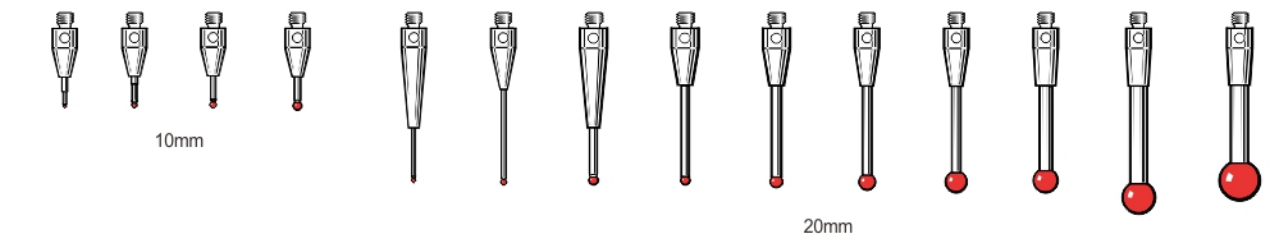


測針連接螺紋(M) Thread Size	測球直徑(A) Ball Dia.	長度(B) Overall Length	測針直徑(C) Stem Dia.	測針有效長(D) Effective Length	訂購編號 Order No.	型號 Model
M2	1.0	10	0.7	4.5	90010-10-10-2	YK-A-5000-7806
	1.5		0.7	4.5	90010-15-10-2	YK-A-5000-7802
	2.0		1.0	6.0	90010-20-10-2	YK-A-5000-7807
	2.5		1.0	6.0	90010-25-10-2	YK-A-5000-7803
	3.0		1.5	7.5	90010-30-10-2	YK-A-5000-3604
	4.0		1.5	10.0	90010-40-10-2	YK-A-5000-4154
	5.0		2.5	10.0	90010-50-10-2	YK-A-5000-4155
	6.0	2.5	10.0	90010-60-10-2	YK-A-5000-4156	
	8.0	11	2.5	11.0	90010-80-11-2	YK-A-5000-4158
	2.0	20	1.4	14.0	90010-20-20-2	YK-A-5000-3603
	2.5		1.4	14.0	90010-25-20-2	YK-A-5000-7804
	3.0		1.5	17.5	90010-30-20-2	YK-A-5000-4160
	4.0		1.5	20.0	90010-40-20-2	YK-A-5000-4161

90020 Ruby Stylus Tungsten Carbide Stem

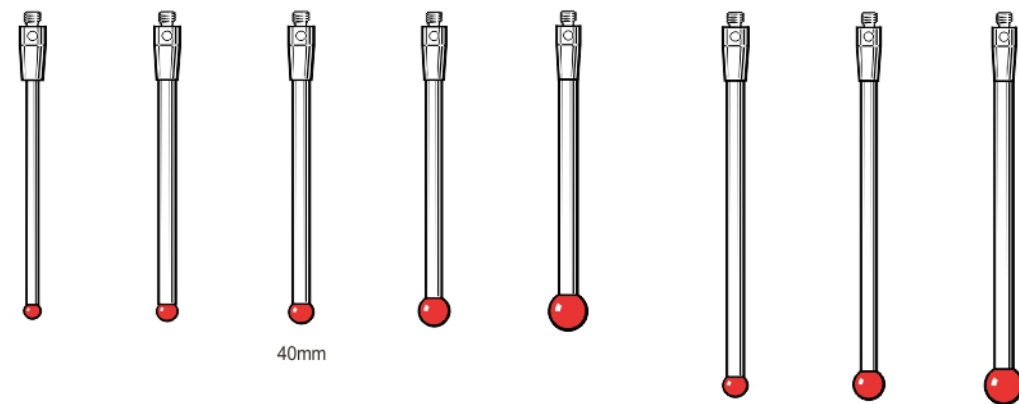
紅寶石球測針 (鎢鋼測杆)

M2螺紋測針系列 | M2 Threaded Stylus



測針連接螺紋(M) Thread Size	測球直徑(A) Ball Dia.	長度(B) Overall Length	測針直徑(C) Stem Dia.	測針有效長(D) Effective Length	訂購編號 Order No.	型號 Model
M2	0.3	10	0.2	2.0	90020-03-10-2	YK-A-5000-7800
	0.5		0.4	3.0	90020-05-10-2	YK-A-5000-7805
	0.7		0.5	4.0	90020-07-10-2	YK-A-5000-7801
	1.0		0.7	4.0	90020-10-10-2	YK-A-5000-7803
	0.5		0.3	7.0	90020-05-20-2	YK-A-5003-1345
	0.7		0.5	12.0	90020-07-20-2	YK-A-5003-0577
	1.0		0.7	7.0	90020-10-20-2	YK-A-5003-7808
	1.0		0.8	12.5	90020-10-20-2-B	YK-A-5003-0033
	1.5		0.7	12.5	90020-15-20-2	YK-A-5003-0034
	2.0		1.0	12.0	90020-20-20-2	YK-A-5003-3822
	2.5	1.0	15.5	90020-25-20-2	YK-A-5003-1896	
	3.0	1.5	20.0	90020-30-20-2	YK-A-5003-0938	
	4.0	2.0	22.0	90020-40-20-2	YK-A-5003-1029	
	5.0	2.5	20.0	90020-50-20-2	YK-A-5003-0046	
	1.0	0.7	20.5	90020-10-30-2	YK-A-5003-8663	
	1.5	1.0	22.5	90020-15-30-2	YK-A-5003-0035	
	2.0	1.5	22.5	90020-20-30-2	YK-A-5003-0036	
	2.5	2.0	25.0	90020-25-30-2	YK-A-5003-0038	
	3.0	2.0	25.0	90020-30-30-2	YK-A-5003-0040	
	4.0	2.0	30.0	90020-40-30-2	YK-A-5003-0043	
5.0	2.5	30.0	90020-50-30-2	YK-A-5003-0047		

M2螺紋測針系列 M2 Threaded Stylus

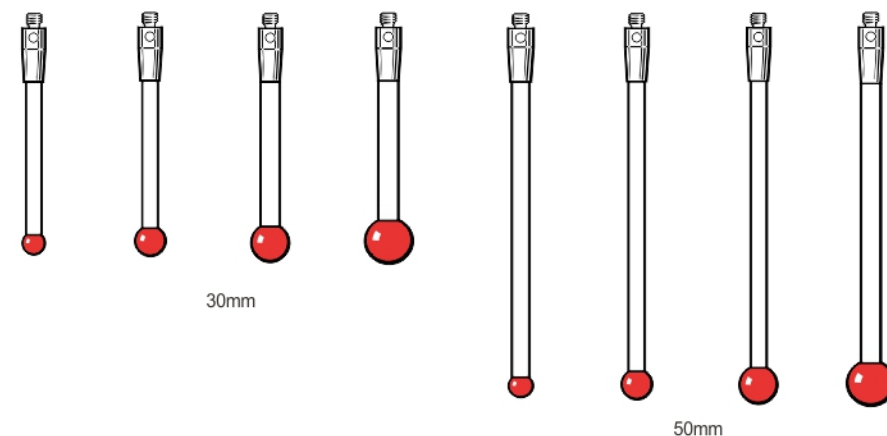


测杆连接螺纹(M) Thread Size	测球直径(A) Ball Dia.	长度(B) Overall Length	测杆直径(C) Stem Dia.	测杆有效长(D) Effective Length	订购编号 Order No.	型号 Model
M2	2.0	40	1.5	35.0	90020-20-40-2	YK-A-5003-0037
	2.5		2.0	35.0	90020-25-40-2	YK-A-5003-0039
	3.0		2.0	35.0	90020-30-40-2	YK-A-5003-0041
	4.0		2.0	40.0	90020-40-40-2	YK-A-5003-0044
	5.0	2.5	40.0	90020-50-40-2	YK-A-5003-0048	
	3.0	50	2.0	42.5	90020-30-50-2	YK-A-5003-0042
	4.0		2.0	50.0	90020-40-50-2	YK-A-5003-0045
	5.0		2.5	50.0	90020-50-50-2	YK-A-5003-0049

90030 Ruby Stylus Ceramic Stem

紅寶石球測針 (陶瓷測杆)

M2螺紋測針系列 | M2 Threaded Stylus

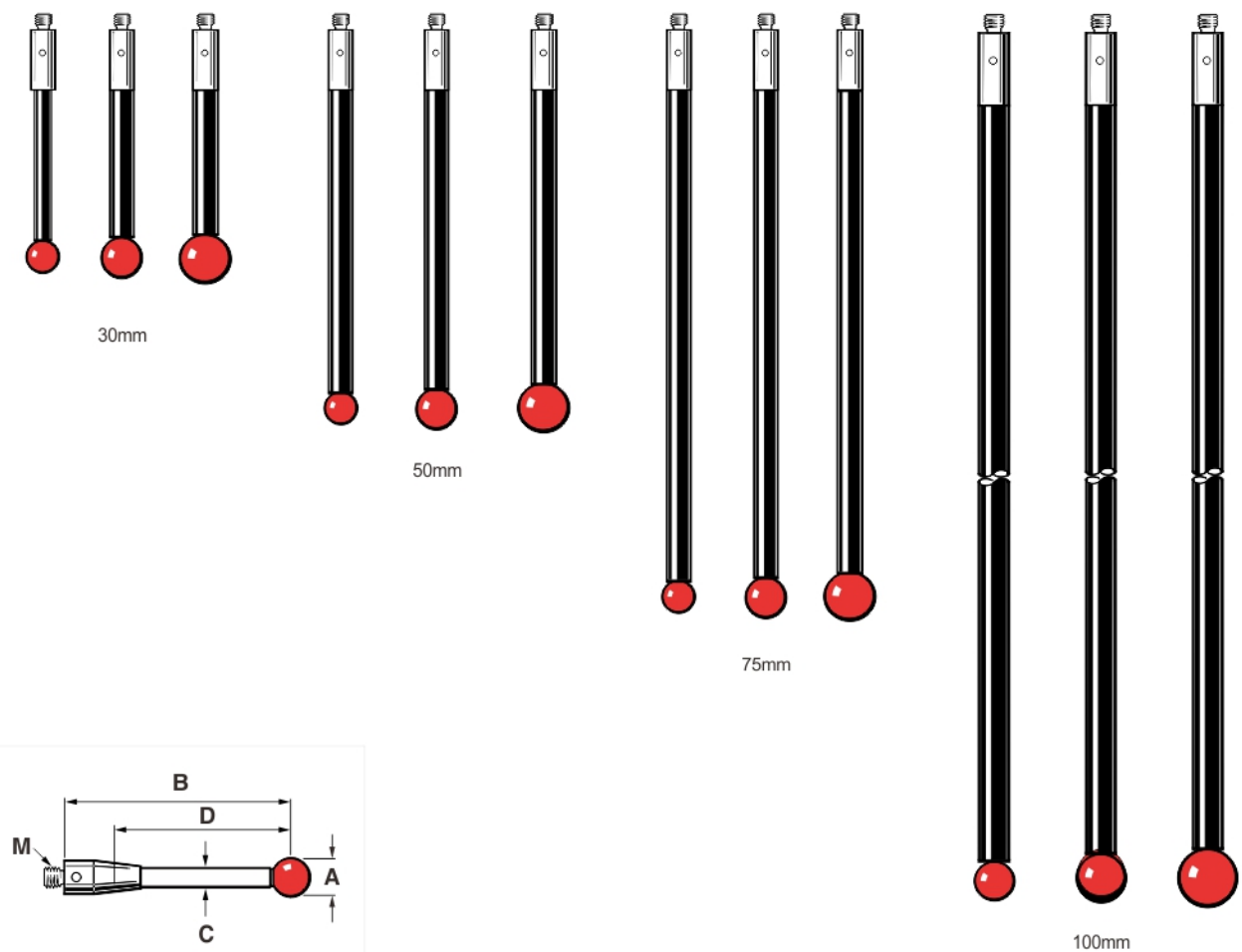


测杆连接螺纹(M) Thread Size	测球直径(A) Ball Dia.	长度(B) Overall Length	测杆直径(C) Stem Dia.	测杆有效长(D) Effective Length	订购编号 Order No.	型号 Model
M2	3.0	30	2.0	27.5	90030-30-30-2	YK-A-5003-4177
	4.0		2.5	30.0	90030-40-30-2	YK-A-5003-1370
	5.0		2.5	30.0	90030-50-30-2	YK-A-5003-4779
	6.0		2.5	30.0	90030-60-30-2	YK-A-5000-4780
	3.0	50	2.0	42.5	90030-30-50-2	YK-A-5003-0064
	4.0		2.0	50.0	90030-40-50-2	YK-A-5003-0065
	5.0		2.5	50.0	90030-50-50-2	YK-A-5003-0066
	6.0		2.5	50.0	90030-60-50-2	YK-A-5003-0470

90040 Ruby Stylus Carbon Fiber Stem

紅寶石球測針 (碳纖維測杆)

M2螺紋測針系列 | M2 Threaded Stylus



测杆连接螺纹(M) Thread Size	测球直径(A) Ball Dia.	长度(B) Overall Length	测杆直径(C) Stem Dia.	测杆有效长(D) Effective Length	订购编号 Order No.	型号 Model
M2	4.0	30	2.0	30.0	90040-40-30-2	YK-A-5003-4241
	5.0		3.0	30.0	90040-50-30-2	YK-A-5003-4781
	6.0		3.0	30.0	90040-60-30-2	YK-A-5003-4782
	4.0	50	3.0	50.0	90040-40-50-2	YK-A-5003-2285
	5.0		3.0	50.0	90040-50-50-2	YK-A-5003-2286
	6.0		3.0	50.0	90040-60-50-2	YK-A-5003-2287
	4.0	75	3.0	75.0	90040-40-75-2	YK-A-5003-4784
	5.0		3.0	75.0	90040-50-75-2	YK-A-5003-4785
	6.0		3.0	75.0	90040-60-75-2	YK-A-5003-4786
	4.0	100	3.0	100.0	90040-40-100-2	YK-A-5003-2289
	5.0		3.0	100.0	90040-50-100-2	YK-A-5003-2290
	6.0		3.0	100.0	90040-60-100-2	YK-A-5003-2291

M3螺紋測針系列 M3 Threaded Stylus

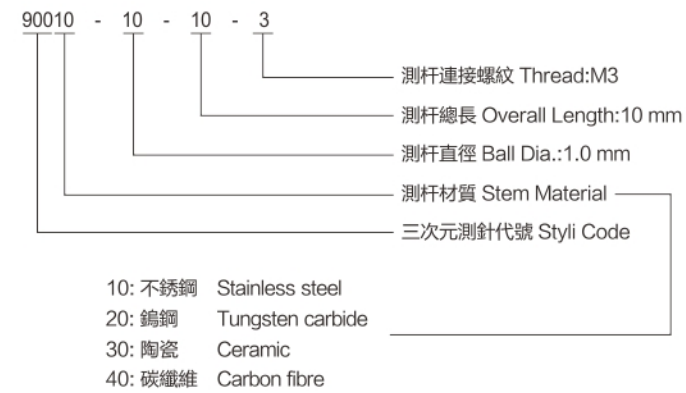
CNCI的測頭測量系統經過精心設計，選用CNCI的全系列測針，使性能最佳。

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-TP1 -TP6

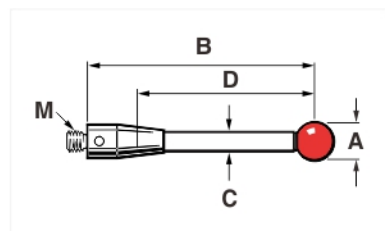
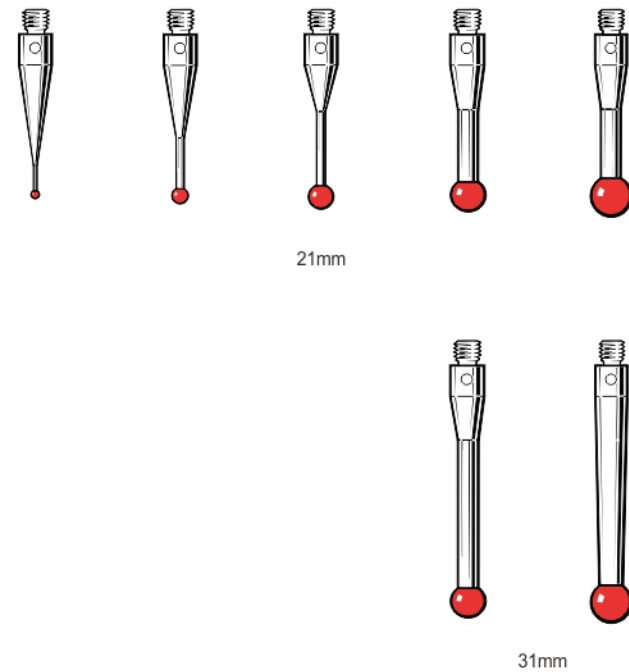
訂購編號說明 Order example



90010 Ruby Stylus Stainless Steel Stem

紅寶石球測針 (不銹鋼測杆)

M3螺紋測針系列 | M3 Threaded Stylus

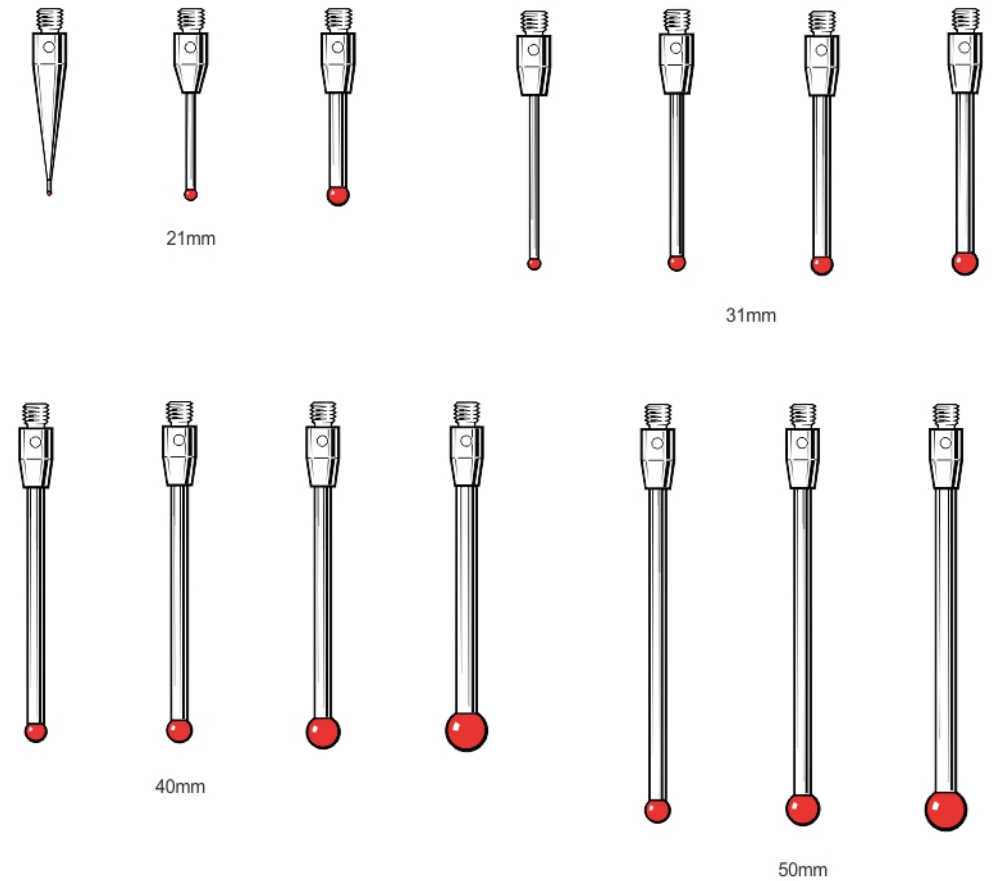


測針連接螺紋(M) Thread Size	測球直徑(A) Ball Dia.	長度(B) Overall Length	測針直徑(C) Stem Dia.	測針有效長(D) Effective Length	訂購編號 Order No.	型號 Model
M3	1.0	21	0.6	4.0	90010-10-21-3	YK-A-5000-3551
	2.0		1.4	8.0	90010-20-21-3	YK-A-5000-3552
	3.0		1.5	12.0	90010-30-21-3	YK-A-5000-3553
	4.0	31	2.5	17.2	90010-40-21-3	YK-A-5000-7606
	5.0		2.5	21.0	90010-50-21-3	YK-A-5000-7630
	4.0		2.5	27.0	90010-40-31-3	YK-A-5000-3554
	5.0		3.5	31.0	90010-50-31-3	YK-A-5000-7648

90020 Ruby Stylus Tungsten Carbide Stem

紅寶石球測針 (鎢鋼測杆)

M3螺紋測針系列 | M3 Threaded Stylus

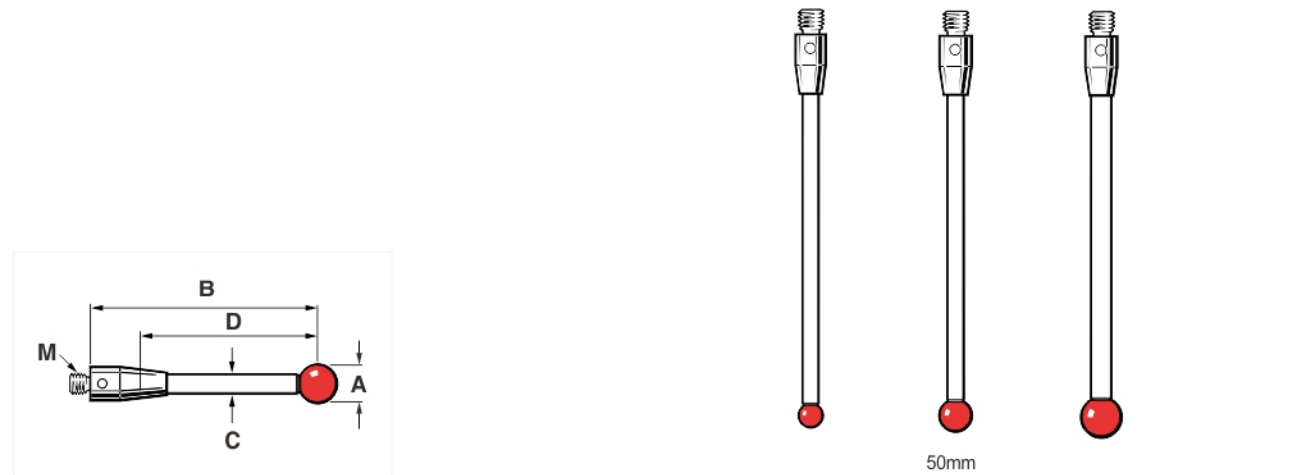


測針連接螺紋(M) Thread Size	測球直徑(A) Ball Dia.	長度(B) Overall Length	測針直徑(C) Stem Dia.	測針有效長(D) Effective Length	訂購編號 Order No.	型號 Model
M3	0.5	21	0.4	2.0	90020-05-21-3	YK-A-5000-7632
	1.5		1.0	12.5	90020-15-21-3	YK-A-5003-0050
	2.5		2.0	12.5	90020-25-21-3	YK-A-5003-0054
	1.5	31	1.0	22.5	90020-15-31-3	YK-A-5003-0051
	2.0		1.5	22.5	90020-20-31-3	YK-A-5003-0052
	2.5		2.0	22.5	90020-25-31-3	YK-A-5003-0055
	3.0		2.0	22.5	90020-30-31-3	YK-A-5003-0057
	2.0	40	1.5	32.5	90020-20-40-3	YK-A-5003-0037
	2.5		2.0	32.5	90020-25-40-3	YK-A-5003-0039
	3.0		2.0	32.5	90020-30-40-3	YK-A-5003-0041
	4.0		2.0	36.0	90020-40-40-3	YK-A-5003-0044
	5.0		2.5	40.0	90020-50-40-3	YK-A-5003-0048
	3.0	50	2.0	42.5	90020-30-50-3	YK-A-5003-0042
	4.0		2.0	46.0	90020-40-50-3	YK-A-5003-0045
	5.0		2.5	50.0	90020-50-50-3	YK-A-5003-0049

90030 Ruby Stylus Ceramic Stem

紅寶石球測針 (陶瓷測杆)

M3螺紋測針系列 | M3 Threaded Stylus

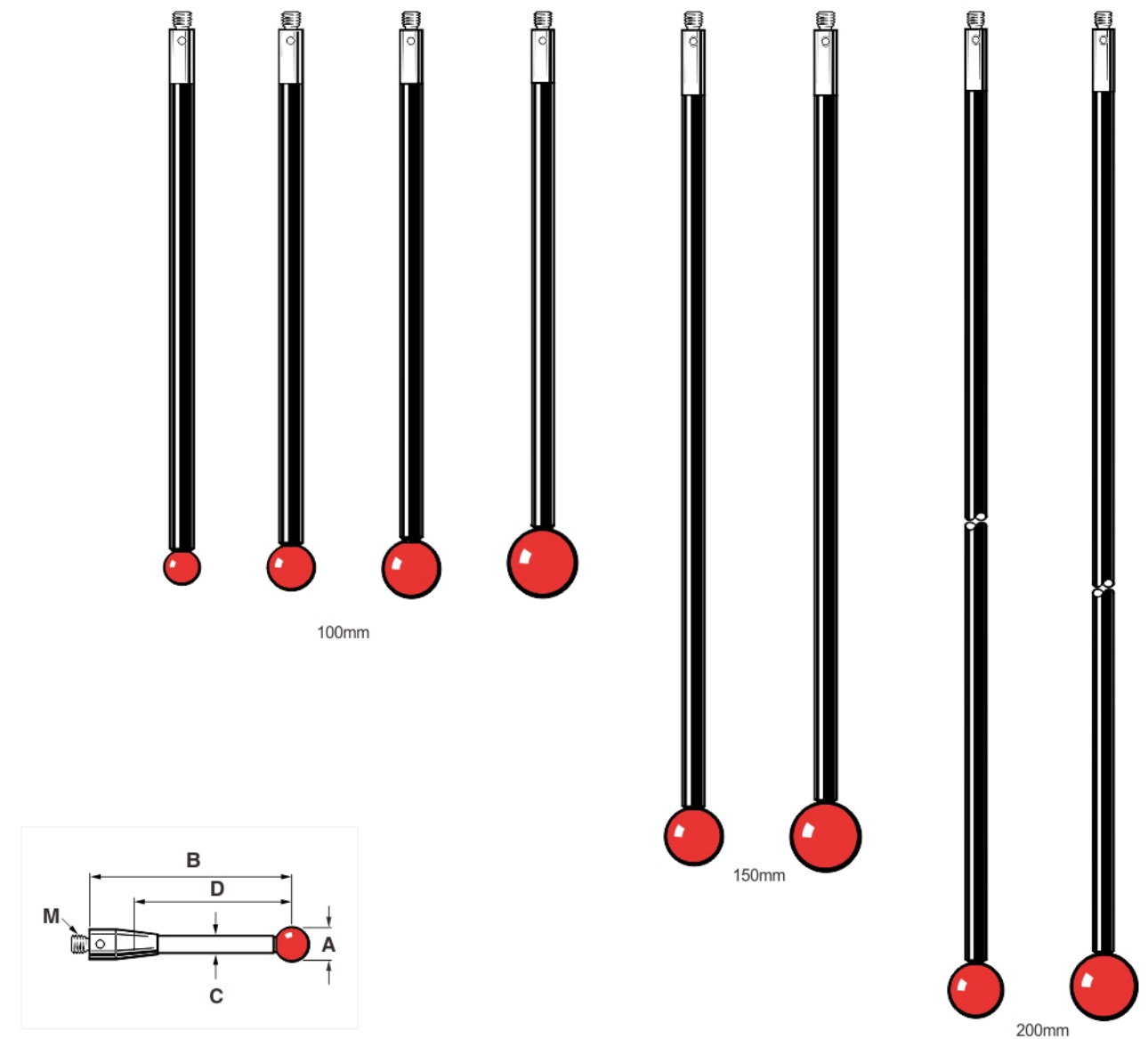
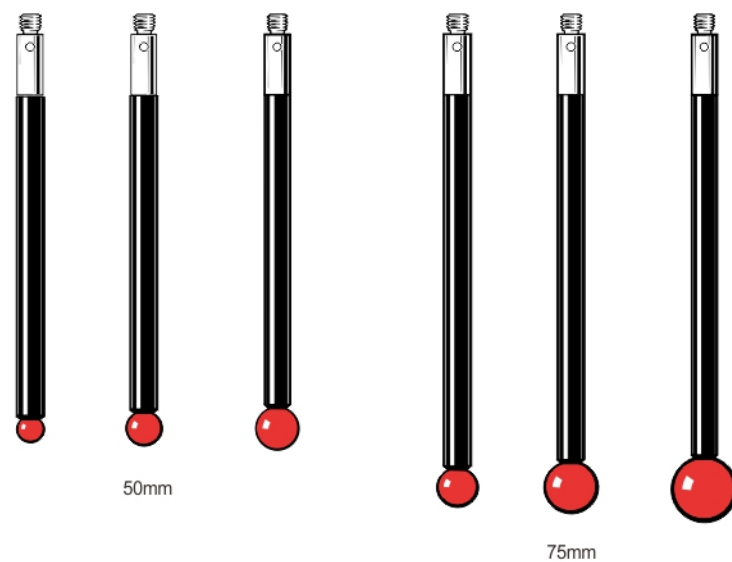


测杆连接螺纹(M) Thread Size	测球直径(A) Ball Dia.	长度(B) Overall Length	测杆直径(C) Stem Dia.	测杆有效长(D) Effective Length	订购编号 Order No.	型号 Model
M3	3.0	50	2.0	42.5	90030-30-50-3	YK-A-5003-0067
	4.0		2.0	46.0	90030-40-50-3	YK-A-5003-0068
	5.0		2.5	50.0	90030-50-50-3	YK-A-5003-0069

90040 Ruby Stylus Carbon Fiber Stem

紅寶石球測針 (碳纖維測杆)

M3螺紋測針系列 | M3 Threaded Stylus



测杆连接螺纹(M) Thread Size	测球直径(A) Ball Dia.	长度(B) Overall Length	测杆直径(C) Stem Dia.	测杆有效长(D) Effective Length	订购编号 Order No.	型号 Model
M3	3.0	50	2.0	42.5	90040-30-50-3	YK-A-5003-0067
	4.0		2.0	46.0	90040-40-50-3	YK-A-5003-0068
	5.0		2.5	50.0	90040-50-50-3	YK-A-5003-0069
	6.0	75	4.0	75.0	90040-60-75-3	YK-A-5003-4785
	8.0		4.0	75.0	90040-80-75-3	YK-A-5003-4786
	10.0		4.0	75.0	90040-100-75-3	YK-A-5003-7057
	6.0	100	4.0	100.0	90040-60-100-2	YK-A-5003-4861
	8.0		4.0	100.0	90040-80-100-2	YK-A-5003-4863
	10.0		4.0	100.0	90040-100-100-3	YK-A-5003-7056
	12.0	150	4.0	100.0	90040-100-100-3	YK-A-5003-7056
	10.0		4.0	150.0	90040-100-150-3	YK-A-5003-7055
	12.0		4.0	150.0	90040-120-150-3	YK-A-5003-7446
	10.0	200	4.0	200.0	90040-100-200-3	YK-A-5003-7054
	12.0		4.0	200.0	90040-120-200-3	YK-A-5003-7447

M4螺紋測針系列 M4 Threaded Stylus

CNCI的測頭測量系統經過精心設計，選用CNCI的全系列測針，使性能最佳。

下列測頭全部使用M4螺紋的測針，但配備適合的轉接頭也可使用其它螺紋

CNCI's probing systems are designed to give optimum performance using styli from CNCI's comprehensive range. The following probes all use M4 threaded styli, however, with suitable adaptors, other thread sizes may be used.

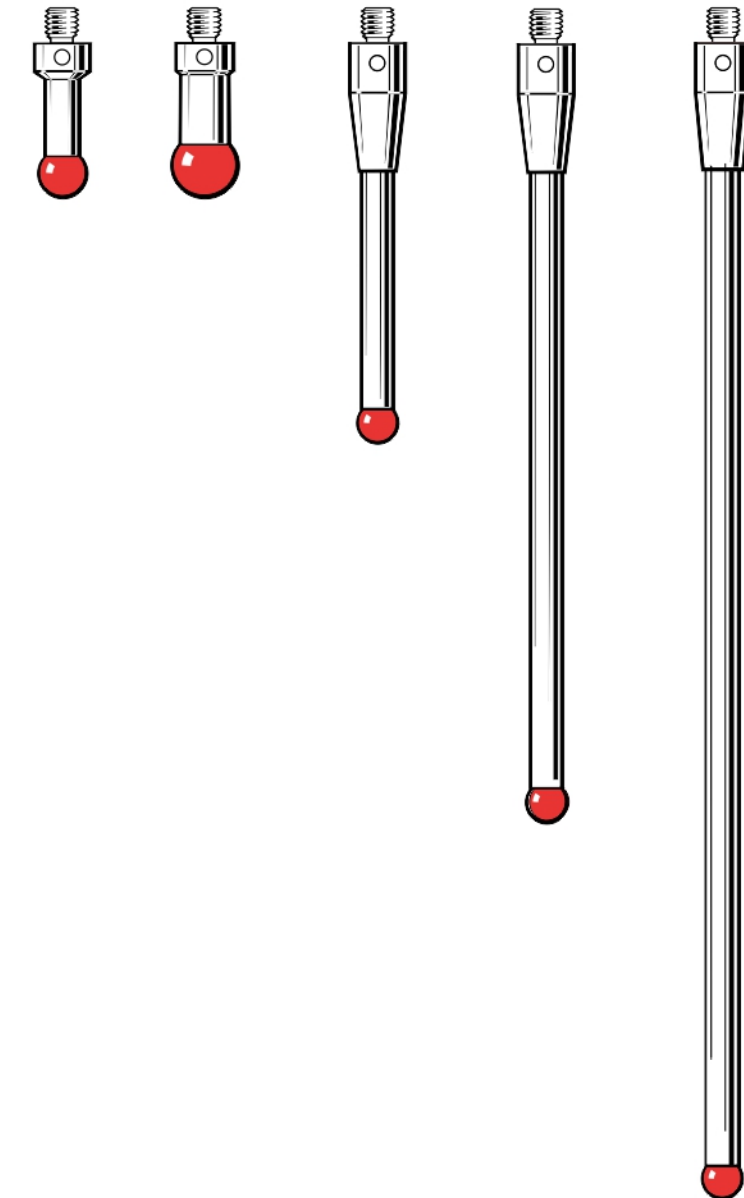
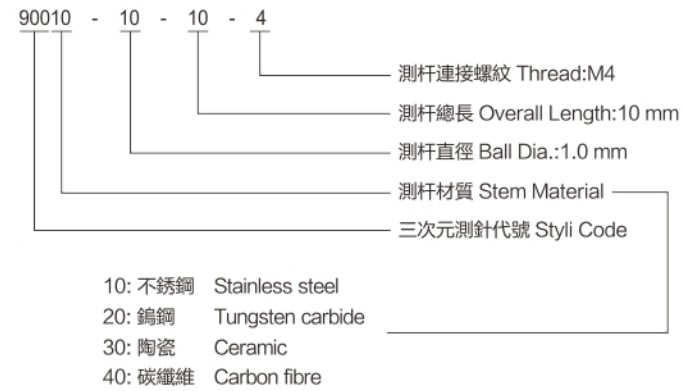
坐標測量機 CMM

- TP7
- SP600
- TP800

機床 Machine

- MP1
- MP3
- MP11
- MP700
- LP2
- TS27R
- OMP40-2
- OMP400
- RMP60
- RP3
- RMP40
- RLP40
- OLP40
- OMP60
- OTS
- RMP600
- MP250
- HPRA
- HPPA
- HPMA

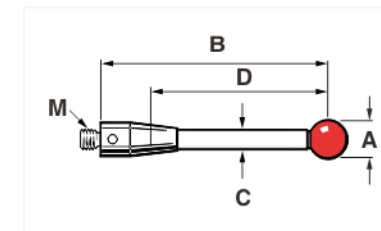
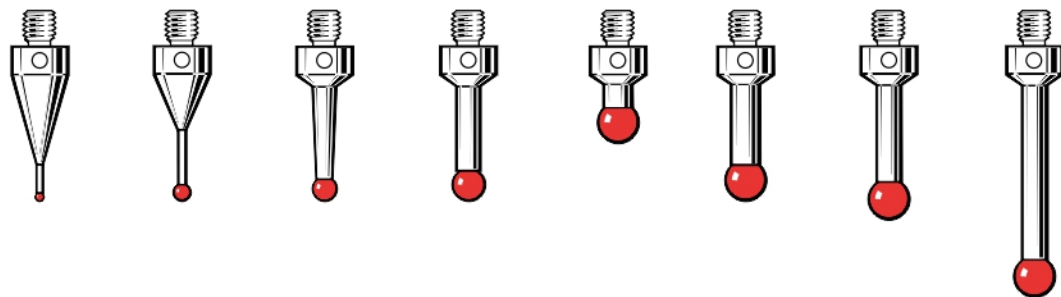
訂購編號說明 Order example



90010 Ruby Stylus Stainless Steel Stem

紅寶石球測針 (不銹鋼測杆)

M4螺紋測針系列 | M4 Threaded Stylus



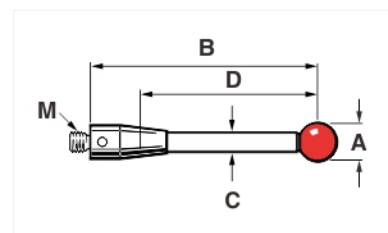
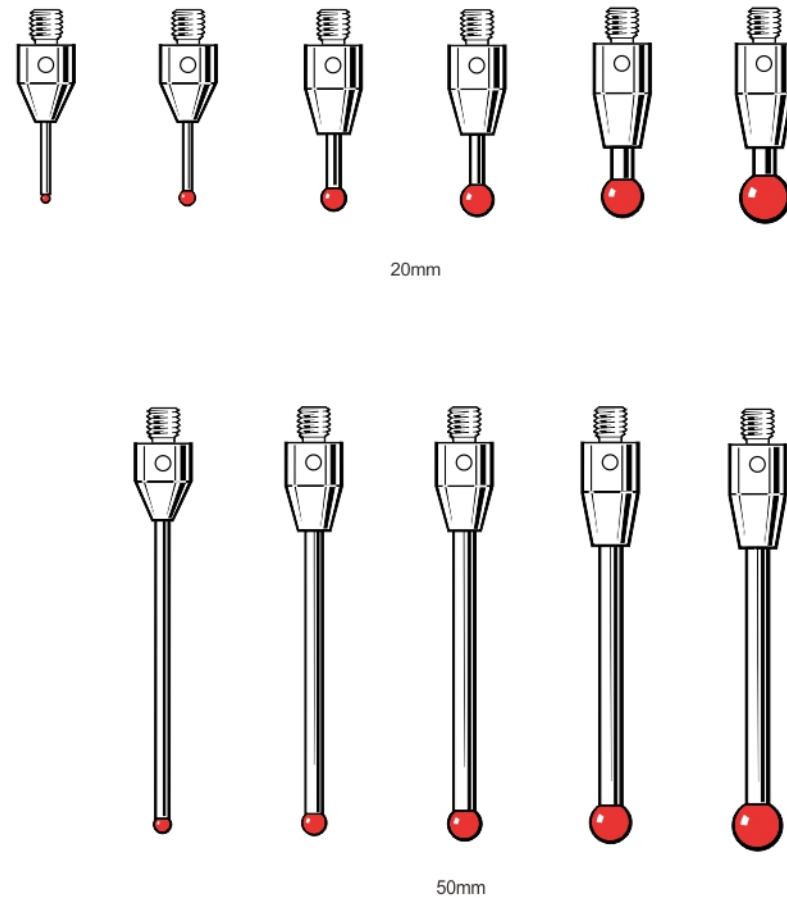
測杆連接螺紋(M) Thread Size	測球直徑(A) Ball Dia.	長度(B) Overall Length	測杆直徑(C) Stem Dia.	測杆有效長(D) Effective Length	訂購編號 Order No.	型號 Model
M4	1.0	19.5	0.7	4.0	90010-10-20-4	YK-A-5000-7545
	2.0	19	1.4	8.0	90010-20-19-4	YK-A-5000-7547
	3.0	18.5	2.0	13.0	90010-30-19-4	YK-A-5000-7549
	4.0	18	3.0	13.0	90010-40-18-4	YK-A-5000-7551
	5.0	10.5	3.5	5.5	90010-50-11-4	YK-A-5003-3550
	5.0	18	3.5	13.5	90010-50-18-4	YK-A-5000-7553
	5.0	20	3.0	16.0	90010-50-20-4	YK-A-5000-6731
	5.0	30	3.0	26.0	90010-50-30-4	YK-A-5000-6352
	6.0	17.5	4.5	13.5	90010-60-18-4	YK-A-5000-7555
	8.0	16	6.0	16.0	90010-80-16-4	YK-A-5000-7557
	5.0	50	4.5	35.0	90010-50-50-4	YK-A-5000-7521
	5.0	100	4.5	85.0	90010-50-100-4	YK-A-5000-7522
	5.0	150	4.4	133.0	90010-50-150-4	YK-A-5000-7523

M4螺紋測針系列 M4 Threaded Stylus

90020 Ruby Stylus Tungsten Carbide Stem

紅寶石球測針 (鎢鋼測杆)

M4螺紋測針系列 | M4 Threaded Stylus

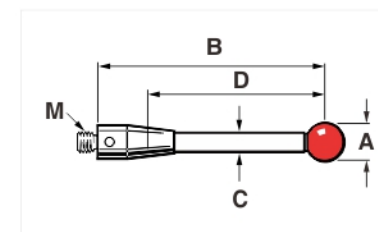
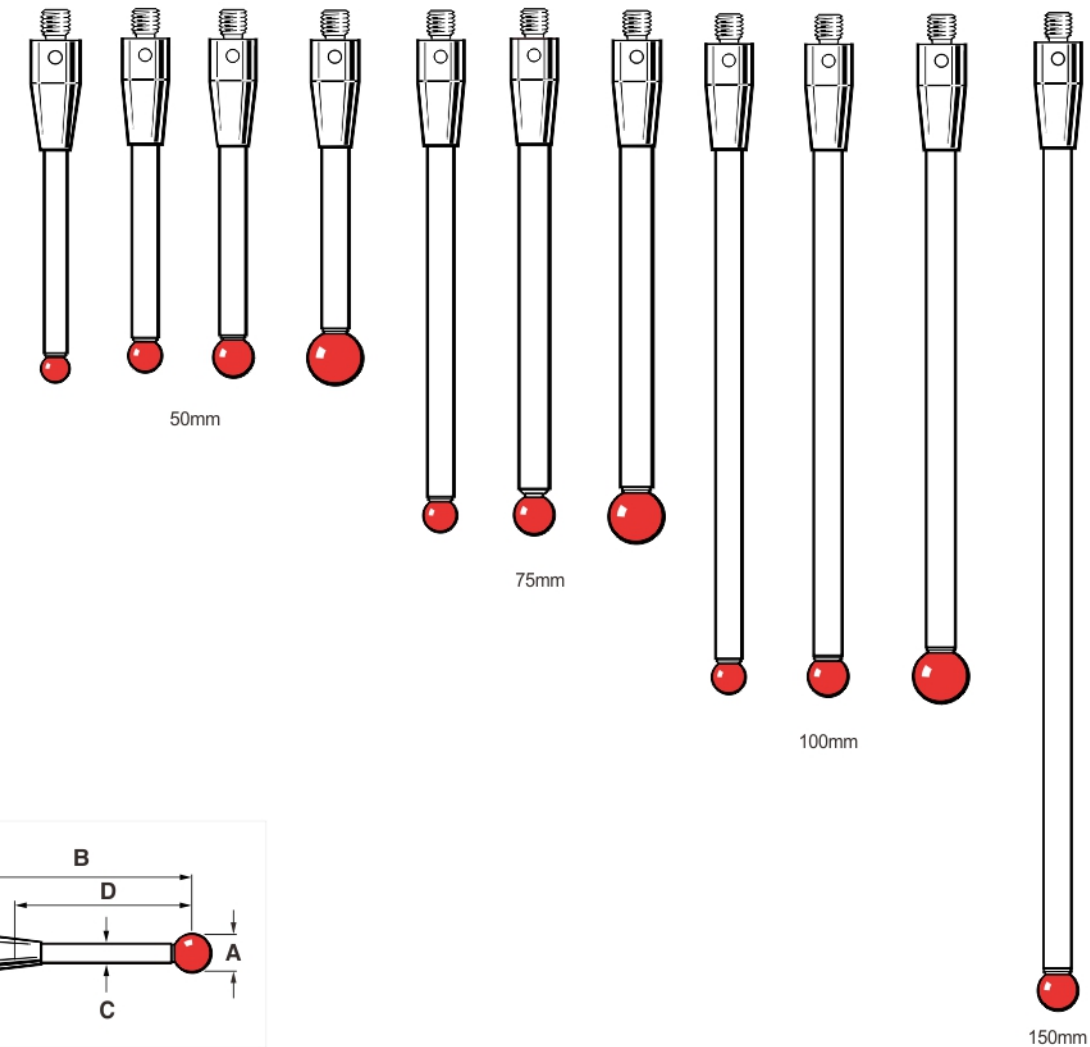


测杆连接螺纹(M) Thread Size	测球直径(A) Ball Dia.	长度(B) Overall Length	测杆直径(C) Stem Dia.	测杆有效长(D) Effective Length	订购编号 Order No.	型号 Model
M4	1.0	20	0.7	10.0	90020-10-20-4	YK-A-5003-4792
	2.0		1.5	10.0	90020-20-20-4	YK-A-5003-2932
	3.0		1.5	10.0	90020-30-20-4	YK-A-5003-7493
	4.0		1.5	10.0	90020-40-20-4	YK-A-5003-7494
	5.0		2.5	6.0	90020-50-20-4	YK-A-5003-7495
	6.0		2.5	6.0	90020-60-20-4	YK-A-5003-7496
	2.0	50	1.5	40.0	90020-20-50-4	YK-A-5003-4797
	3.0		2.0	38.0	90020-30-50-4	YK-A-5003-3680
	4.0		2.0	38.0	90020-40-50-4	YK-A-5003-4799
	5.0		2.5	36.0	90020-50-50-4	YK-A-5003-4800
	6.0		2.5	36.0	90020-60-50-4	YK-A-5003-4801

90030 Ruby Stylus Ceramic Stem

紅寶石球測針 (陶瓷測杆)

M4螺紋測針系列 | M4 Threaded Stylus

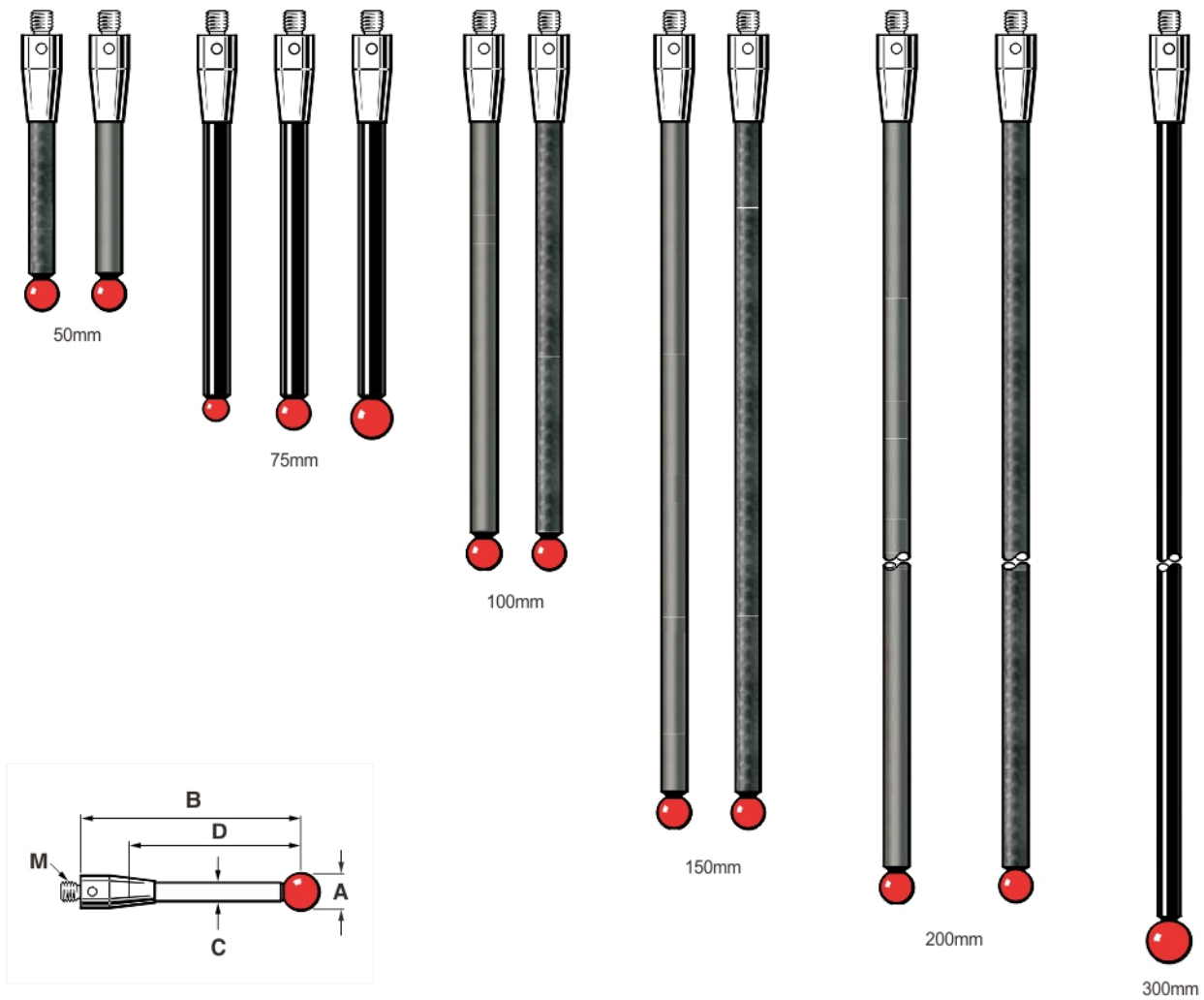


测杆连接螺纹(M) Thread Size	测球直径(A) Ball Dia.	长度(B) Overall Length	测杆直径(C) Stem Dia.	测杆有效长(D) Effective Length	订购编号 Order No.	型号 Model
M4	5.0	50	3.8	34.0	90030-50-50-4	YK-A-5003-0235
	6.0		4.5	36.0	90030-60-50-4	YK-A-5003-3709
	8.0		4.5	50.0	90030-80-50-4	YK-A-5003-7795
	5.0	75	3.8	59.0	90030-50-75-4	YK-A-5003-0236
	6.0		4.5	63.5	90030-60-75-4	YK-A-5003-2764
	8.0		4.5	75.0	90030-80-75-4	YK-A-5003-4802
	5.0	100	3.8	84.0	90030-50-100-4	YK-A-5000-9761
	6.0		4.5	86.0	90030-60-100-4	YK-A-5000-3712
	8.0		4.5	100.0	90030-80-100-4	YK-A-5000-7796
	6.0	150	4.5	133.0	90030-60-150-4	YK-A-5000-8156

90040 Ruby Stylus Carbon Fiber Stem

紅寶石球測針 (碳纖維測杆)

M4螺紋測針系列 | M4 Threaded Stylus



測杆連接螺紋(M) Thread Size	測球直徑(A) Ball Dia.	長度(B) Overall Length	測杆直徑(C) Stem Dia.	測杆有效長(D) Effective Length	訂購編號 Order No.	型號 Model
M4	5.0	50	4.5	36.0	90040-50-50-4	YK-A-5003-0236
	6.0		4.5	36.0	90040-60-50-4	YK-A-5003-7306
	5.0	75	3.8	59.0	90040-50-75-4	YK-A-5003-0236
	6.0		4.5	63.5	90040-60-75-4	YK-A-5003-2764
	8.0		4.5	75.0	90040-80-75-4	YK-A-5003-4802
	6.0	100	4.5	86.0	90040-60-100-4	YK-A-5003-1358
	6.0		4.5	88.0	90040-60-100-4-B	YK-A-5003-6510
	6.0	150	4.5	138.5	90040-60-150-4	YK-A-5003-1225
	6.0		4.5	138.0	90040-60-150-4-B	YK-A-5003-6511
	6.0	200	4.5	186.0	90040-60-200-4	YK-A-5003-1075
	6.0		4.5	186.0	90040-60-200-4-B	YK-A-5003-6512
	8.0	300	4.5	300.0	90040-80-300-4	YK-A-5003-3461

M5螺紋測針系列 M5 Threaded Stylus

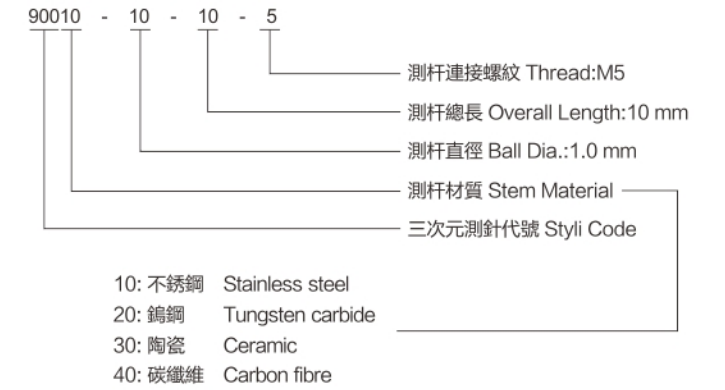
CNCI的測頭測量系統經過精心設計，選用CNCI的全系列測針，使性能最佳。

下列測頭全部使用M5螺紋的測針，但配備適合的轉接頭也可使用其它螺紋

CNCI's probing systems are designed to give optimum performance using styli from CNCI's comprehensive range. The following probes all use M5 threaded styli, however, with suitable adaptors, other thread sizes may be used.

- SP80 - SP2 - SP2-1

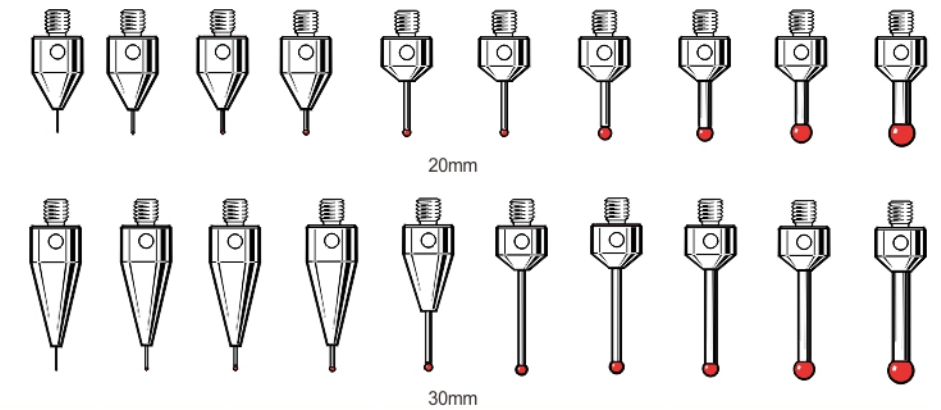
訂購編號說明 Order example



90020 Ruby Stylus Tungsten Carbide Stem

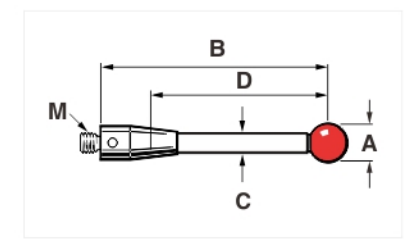
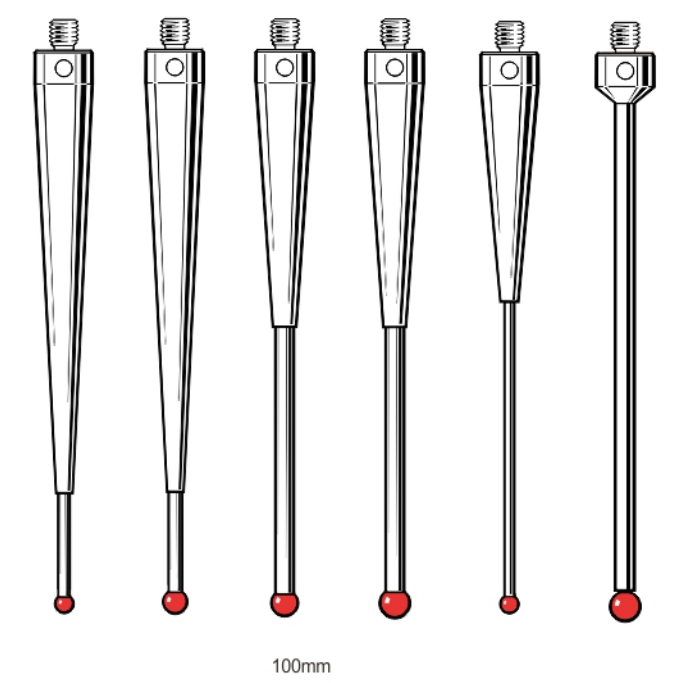
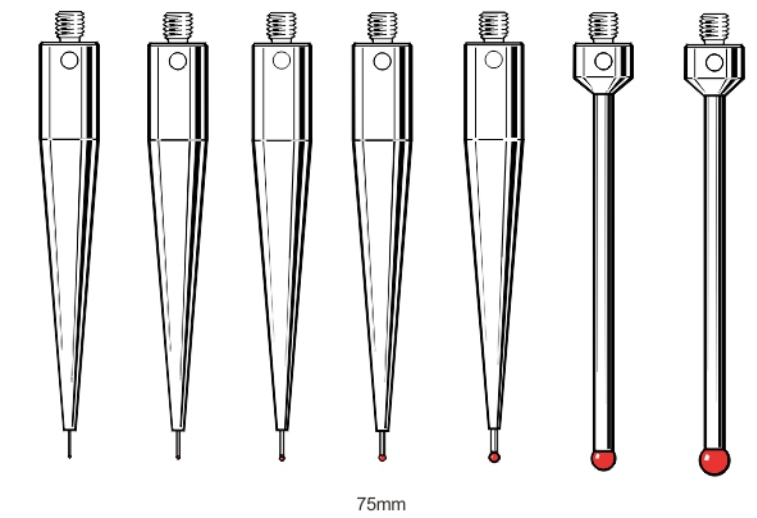
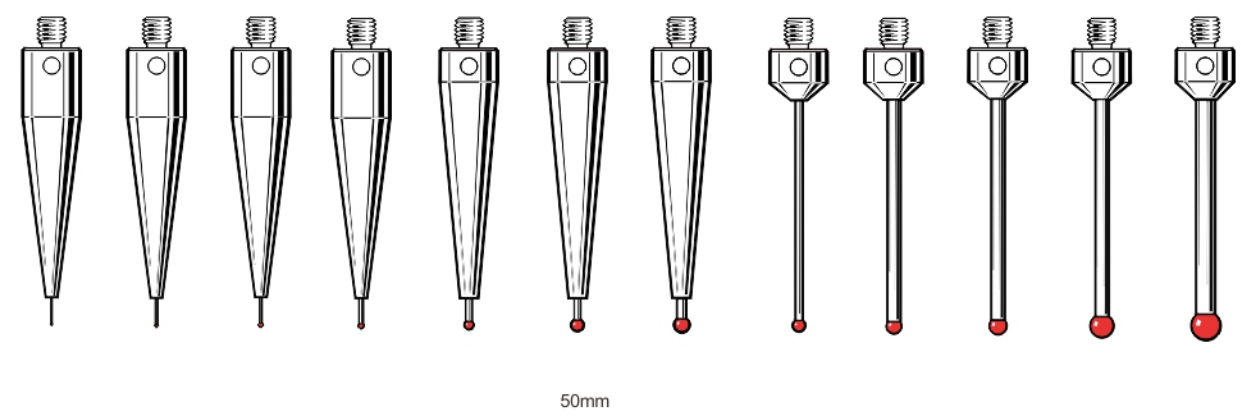
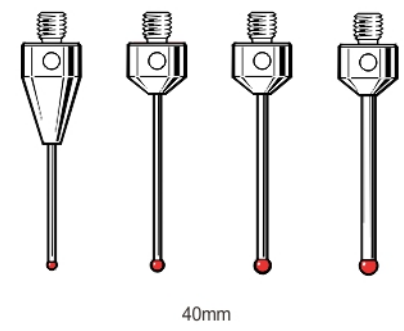
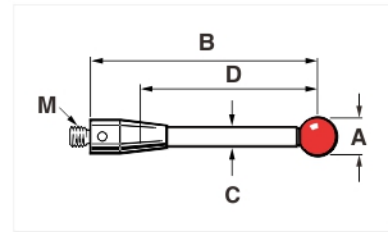
紅寶石球測針 (鎢鋼測杆)

M5螺紋測針系列 | M5 Threaded Stylus



測杆連接螺紋(M) Thread Size	測球直徑(A) Ball Dia.	長度(B) Overall Length	測杆直徑(C) Stem Dia.	測杆有效長(D) Effective Length	訂購編號 Order No.	型號 Model
M5	0.3	20	0.2	3.0	90020-03-20-5	YK-A-5003-5201
	0.5		0.4	4.0	90020-05-20-5	YK-A-5003-5202
	0.7		0.5	5.0	90020-07-20-5	YK-A-5003-5203
	1.0		0.7	5.0	90020-10-20-5	YK-A-5003-5204
	1.5		1.0	11.0	90020-15-20-5	YK-A-5003-5205
	2.0		1.0	11.0	90020-20-20-5	YK-A-5003-5206
	2.5		1.5	11.0	90020-25-20-5	YK-A-5003-5207
	3.0		2.0	11.0	90020-30-20-5	YK-A-5003-5208
	4.0	2.0	11.0	90020-40-20-5	YK-A-5003-5209	
	5.0	3.0	11.0	90020-50-20-5	YK-A-5003-5210	
	0.3	30	0.2	3.0	90020-03-30-5	YK-A-5003-5211
	0.5		0.4	4.0	90020-05-30-5	YK-A-5003-5212
	0.7		0.5	5.0	90020-07-30-5	YK-A-5003-5213
	1.0		0.7	5.0	90020-10-30-5	YK-A-5003-5214
	1.5		1.0	12.0	90020-15-30-5	YK-A-5003-5215
	2.0		1.0	21.0	90020-20-30-5	YK-A-5003-5216
	2.5		1.5	21.0	90020-25-30-5	YK-A-5003-5217
	3.0		2.0	21.0	90020-30-30-5	YK-A-5003-5218
	4.0		2.0	21.0	90020-40-30-5	YK-A-5003-5219
	5.0		3.0	21.0	90020-50-30-5	YK-A-5003-5220

M5螺紋測針系列 M5 Threaded Stylus



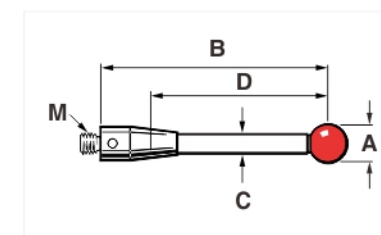
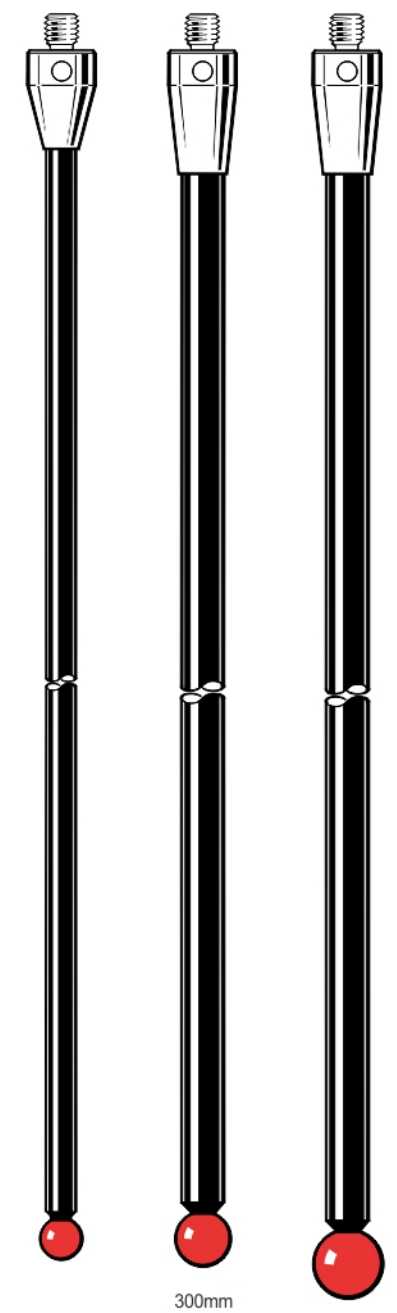
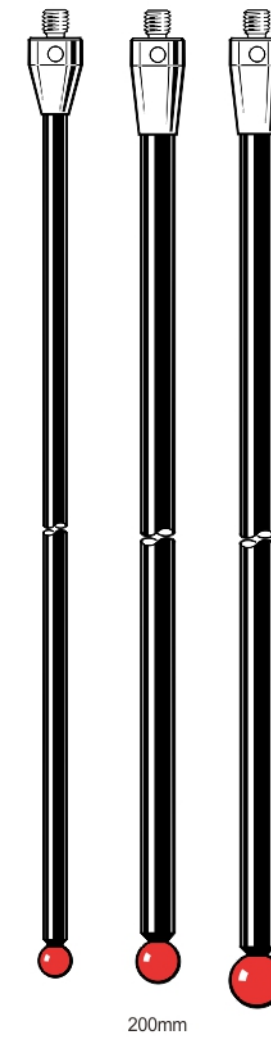
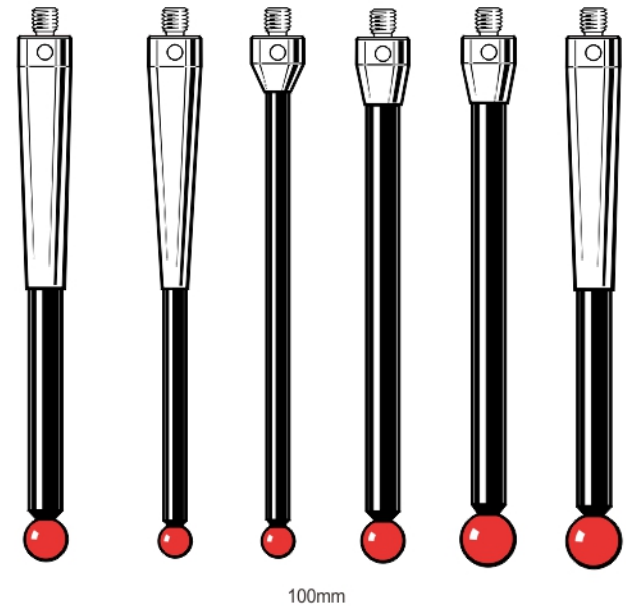
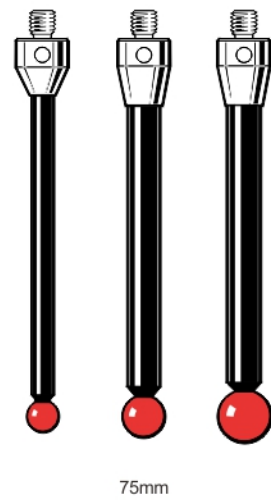
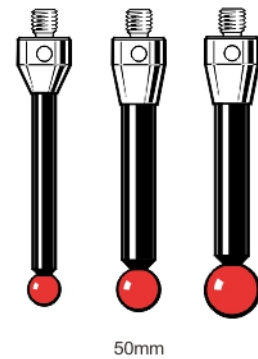
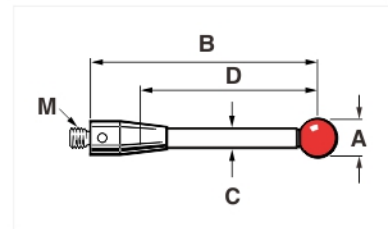
测杆连接螺纹(M) Thread Size	测球直径(A) Ball Dia.	长度(B) Overall Length	测杆直径(C) Stem Dia.	测杆有效长(D) Effective Length	订购编号 Order No.	型号 Model
M5	1.5	40	1.0	20.0	90020-15-40-5	YK-A-5003-5221
	2.0		1.0	31.0	90020-20-40-5	YK-A-5003-5222
	2.5		1.5	31.0	90020-25-40-5	YK-A-5003-5223
	3.0		2.0	31.0	90020-30-40-5	YK-A-5003-5224
	0.3	50	0.2	3.0	90020-03-50-5	YK-A-5003-5225
	0.5		0.4	4.0	90020-05-50-5	YK-A-5003-5226
	0.7		0.5	5.0	90020-07-50-5	YK-A-5003-5227
	1.0		0.7	5.0	90020-10-50-5	YK-A-5003-5228
	1.5		1.0	5.0	90020-15-50-5	YK-A-5003-5229
	2.0		1.5	40.0	90020-20-50-5	YK-A-5003-4797
	2.0		1.0	41.0	90020-20-50-5-B	YK-A-5003-5230
	2.0		1.0	5.0	90020-20-50-5-C	YK-A-5003-5231
	2.5		1.5	5.0	90020-25-50-5	YK-A-5003-5233
	2.5		2.0	41.0	90020-25-50-5-B	YK-A-5003-5232
	3.0	2.0	38.0	90020-30-50-5	YK-A-5003-3680	
	3.0	2.0	41.0	90020-30-50-5-B	YK-A-5003-5234	
	4.0	2.0	41.0	90020-40-50-5	YK-A-5003-5235	
	4.0	2.0	38.0	90020-40-50-5-B	YK-A-5003-4799	
	5.0	2.5	36.0	90020-50-50-5	YK-A-5003-4800	
	5.0	3.0	41.0	90020-50-50-5-B	YK-A-5003-5236	
6.0	2.5	36.0	90020-60-50-5	YK-A-5003-4801		

测杆连接螺纹(M) Thread Size	测球直径(A) Ball Dia.	长度(B) Overall Length	测杆直径(C) Stem Dia.	测杆有效长(D) Effective Length	订购编号 Order No.	型号 Model
M5	0.3	75	0.2	3.0	90020-03-75-5	YK-A-5003-5240
	0.5		0.4	4.0	90020-05-75-5	YK-A-5003-5241
	0.7		0.5	5.0	90020-07-75-5	YK-A-5003-5242
	1.0		0.7	5.0	90020-10-75-5	YK-A-5003-5243
	1.5		1.0	5.0	90020-15-75-5	YK-A-5003-5244
	4.0	3.0	65.0	90020-40-75-5	YK-A-5003-5248	
	5.0	3.0	65.0	90020-50-75-5	YK-A-5003-5249	
	3.0	100	2.0	20.0	90020-30-100-5	YK-A-5003-5253
	3.0		1.5	55.0	90020-30-100-5-B	YK-A-5003-5254
	4.0		2.0	20.0	90020-40-100-5	YK-A-5003-5255
	4.0		3.0	50.0	90020-40-100-5-B	YK-A-5003-5256
	5.0		3.0	50.0	90020-50-100-5	YK-A-5003-5257
	5.0	3.0	91.0	90020-50-100-5-B	YK-A-5003-5258	

90040 Ruby Stylus Carbon Fiber Stem

紅寶石球測針 (碳纖維測杆)

M5螺紋測針系列 | M5 Threaded Stylus



测杆连接螺纹(M) Thread Size	测球直径(A) Ball Dia.	长度(B) Overall Length	测杆直径(C) Stem Dia.	测杆有效长(D) Effective Length	订购编号 Order No.	型号 Model
M5	6.0	50	4.0	39.0	90040-60-50-5	YK-A-5003-5237
	8.0		6.0	37.0	90040-80-50-5	YK-A-5003-5238
	10.0		6.0	37.0	90040-100-50-5	YK-A-5003-5239
	6.0	75	4.0	64.0	90040-60-75-5	YK-A-5003-5250
	8.0		6.0	62.0	90040-80-75-5	YK-A-5003-5251
	10.0		6.0	62.0	90040-100-75-5	YK-A-5003-5252
	6.0	100	4.0	50.0	90040-60-100-5	YK-A-5003-5259
	6.0		4.0	89.0	90040-60-100-5-B	YK-A-5003-5260
	8.0		6.0	50.0	90040-80-100-5	YK-A-5003-5261
	8.0		6.0	87.0	90040-80-100-5-B	YK-A-5003-5262
	10.0		6.0	50.0	90040-100-100-5	YK-A-5003-5263
	10.0		6.0	87.0	90040-100-100-5	YK-A-5003-5264

测杆连接螺纹(M) Thread Size	测球直径(A) Ball Dia.	长度(B) Overall Length	测杆直径(C) Stem Dia.	测杆有效长(D) Effective Length	订购编号 Order No.	型号 Model
M5	6.0	150	4.0	120.0	90040-60-150-5	YK-A-5003-5265
	8.0		6.0	120.0	90040-80-150-5	YK-A-5003-5266
	10.0		6.0	120.0	90040-100-150-5	YK-A-5003-5267
	6.0	200	4.0	180.0	90040-60-200-5	YK-A-5003-5268
	8.0		6.0	180.0	90040-80-200-5	YK-A-5003-5269
	10.0		6.0	180.0	90040-100-200-5	YK-A-5003-5270
	6.0	300	4.0	280.0	90040-60-300-5	YK-A-5003-5271
	8.0		6.0	280.0	90040-80-300-5	YK-A-5003-5272
	8.0		6.0	280.0	90040-100-300-5	YK-A-5003-5273
	10.0		6.0	280.0	90040-100-300-5	YK-A-5003-5273

CNCI 製造多種長度和材料的加長杆

— 材質包括不銹鋼、陶瓷和碳纖維。

主要應用：

加長杆用於測量極深的特徵和孔，
或測量難以到達的點。

CNCI make kinds of length and material stylus extensions. Material include stainless steel and carbon fiber.

Main application:

Measure extreme deep feature and hole.

Measure point of contact that difficult to be reached .

訂購編號說明 Order example



M2螺紋測針加長杆系列

M2 Threaded Stylus Extensions

長度 Length	不銹鋼 Stainless steel		陶瓷 Ceramic		碳纖維 Carbon fibre	
	訂購編號 Order No.	型號 Model	訂購編號 Order No.	型號 Model	訂購編號 Order No.	型號 Model
5mm	90090-10-05-2	YK-M-5000-7634	-	-	-	-
10mm	90090-10-10-2	YK-M-5000-3647	-	-	-	-
20mm	90090-10-20-2	YK-M-5000-3648	-	-	-	-
30mm	90090-10-30-2	YK-M-5000-4162	90090-30-30-2	YK-A-5003-0070	-	-
40mm	90090-10-40-2	YK-M-5000-7779	90090-30-40-2	YK-A-5003-0071	90090-40-40-2	YK-A-5003-2280
50mm	-	-	90090-30-50-2	YK-A-5003-0072	90090-40-50-2	YK-A-5003-2281
70mm	-	-	-	-	90090-40-70-2	YK-A-5003-2282
90mm	-	-	-	-	90090-40-90-2	YK-A-5003-2283
100mm	-	-	-	-	90090-40-100-2	YK-A-5003-2284

M3螺紋測針加長杆系列

M3 Threaded Stylus Extensions

長度 Length	不銹鋼 Stainless steel		陶瓷 Ceramic		碳纖維 Carbon fibre	
	訂購編號 Order No.	型號 Model	訂購編號 Order No.	型號 Model	訂購編號 Order No.	型號 Model
10mm	90090-10-10-3	YK-M-5000-7633	-	-	-	-
20mm	90090-10-20-3	YK-M-5000-3592	-	-	-	-
35mm	90090-10-30-3	YK-M-5000-3593	-	-	-	-
50mm	-	-	90090-30-50-3	YK-A-5003-0075	90090-40-50-3	YK-A-5003-4864
70mm	-	-	-	-	90090-40-70-3	YK-A-5003-4865

M4螺紋測針加長杆系列

M4 Threaded Stylus Extensions

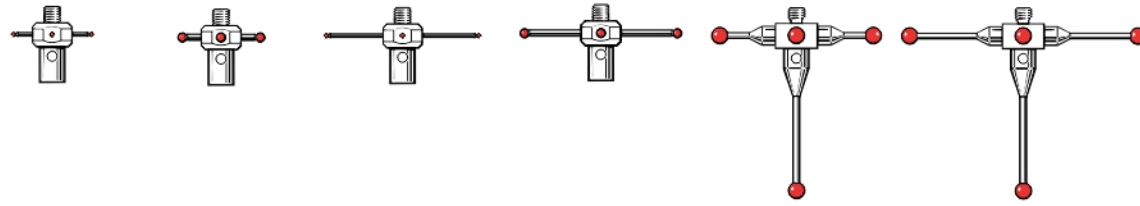
長度 Length	不銹鋼 Stainless steel		陶瓷 Ceramic	
	訂購編號 Order No.	型號 Model	訂購編號 Order No.	型號 Model
10mm	90090-10-05-4	YK-M-5000-7583	-	-
15mm	90090-10-10-4	YK-M-5000-7584	-	-
20mm	90090-10-20-4	YK-M-5000-7585	-	-
30mm	90090-10-30-4	YK-M-5000-7586	90090-30-30-4	YK-A-5000-7754
50mm	-	-	90090-30-40-4	YK-A-5000-7755
100mm	-	-	90090-30-50-4	YK-A-5000-7727

M5螺紋測針加長杆系列

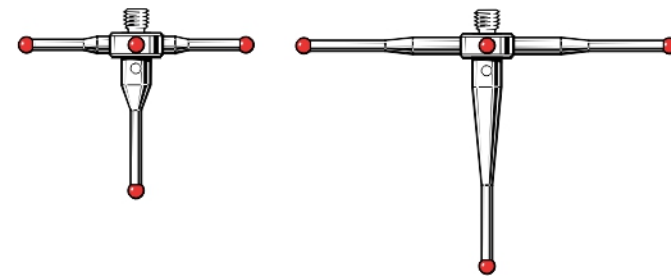
M5 Threaded Stylus Extensions

長度 Length	不銹鋼 Stainless steel		碳纖維A Carbon fibre		碳纖維B Carbon fibre	
	訂購編號 Order No.	型號 Model	訂購編號 Order No.	型號 Model	訂購編號 Order No.	型號 Model
10mm	90090-10-10-5	YK-A-5555-0142	-	-	-	-
20mm	90090-10-20-5	YK-A-5555-0140	-	-	-	-
30mm	90090-10-30-5	YK-A-5555-0669	-	-	-	-
40mm	-	-	90090-40-40-5A	YK-A-5555-0647	90090-40-40-5B	YK-A-5555-0620
50mm	90090-10-50-5	YK-A-5555-0670	90090-40-50-5A	YK-A-5555-0648	90090-40-50-5B	YK-A-5555-0657
60mm	-	-	90090-40-60-5A	YK-A-5555-0649	90090-40-60-5B	YK-A-5555-0658
70mm	-	-	90090-40-70-5A	YK-A-5555-0623	-	-
80mm	-	-	90090-40-80-5A	YK-A-5555-0650	90090-40-80-5B	YK-A-5555-0621
90mm	-	-	90090-40-90-5A	YK-A-5555-0651	-	-
100mm	90090-10-100-5	YK-A-5555-0127	90090-40-100-5A	YK-A-5555-0652	90090-40-100-5B	YK-A-5555-0659
120mm	-	-	90090-40-120-5A	YK-A-5555-0425	90090-40-120-5B	YK-A-5555-0660
150mm	-	-	90090-40-150-5A	YK-A-5555-0424	90090-40-150-5B	YK-A-5555-0621
180mm	-	-	90090-40-180-5A	YK-A-5555-0653	90090-40-180-5B	YK-A-5555-0662
200mm	-	-	90090-40-200-5A	YK-A-5555-0654	90090-40-200-5B	YK-A-5555-0663
250mm	-	-	90090-40-250-5A	YK-A-5555-0655	90090-40-250-5B	YK-A-5555-0427
300mm	-	-	90090-40-300-5A	YK-A-5555-0642	90090-40-300-5B	YK-A-5555-0664
400mm	-	-	90090-40-400-5A	YK-A-5555-0656	90090-40-400-5B	YK-A-5555-0665
500mm	-	-	-	-	90090-40-500-5B	YK-A-5555-0667
600mm	-	-	-	-	90090-40-600-5B	YK-A-5555-0668

星形測針(固定式) Star Styli (Fixed)

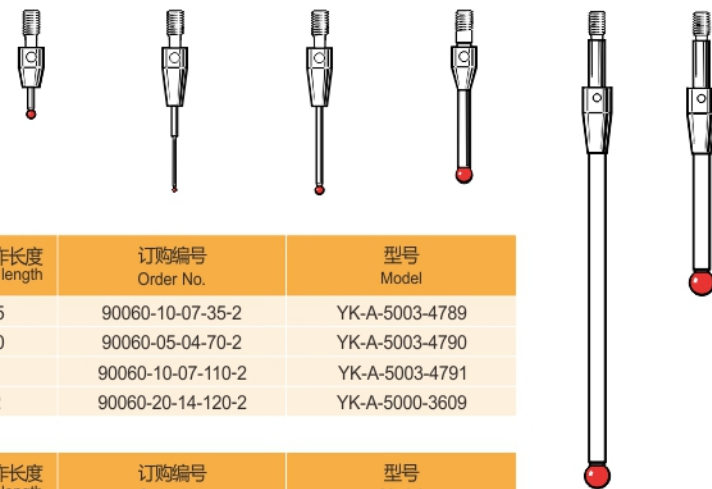


測針連接螺紋 Thread size	跨距 Span	測球直徑 Ball Dia.	測針直徑 Stem Dia.	質量 Mass grammes	訂購編號 Order No.	型號 Model
M2	10	0.5	0.3	0.7	90050-10-05-03-2	YK-A-5003-4011
	10	1.0	0.7	0.5	90050-10-10-07-2	YK-A-5000-7811
	20	0.5	0.3	0.7	90050-20-05-03-2	YK-A-5003-4787
	20	1.0	0.7	0.9	90050-20-10-07-2	YK-A-5003-4788
	18	2.0	1.4	1.3	90050-18-20-14-2	YK-A-5000-7629
	30	2.0	1.4	1.8	90050-30-20-14-2	YK-A-5000-3626



測針連接螺紋 Thread size	跨距 Span	測球直徑 Ball Dia.	測針直徑 Stem Dia.	質量 Mass grammes	訂購編號 Order No.	型號 Model
M3	30	2.0	1.4	2.38	90050-30-20-14-3	YK-A-5003-0076
	50	2.0	1.4	5.25	90050-50-20-14-3	YK-A-5003-0077

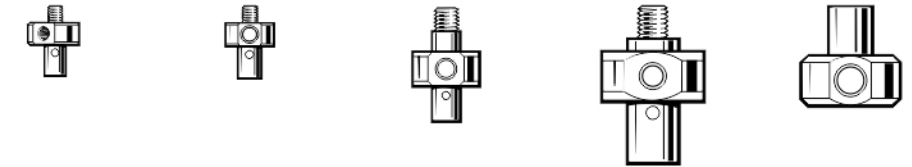
星形測針用中心測針 Star Styli Centres



測針連接螺紋 Thread size	測球直徑 Ball Dia.	測針直徑 Stem Dia.	有效工作長度 Effective length	訂購編號 Order No.	型號 Model
M2	1.0	0.7	3.5	90060-10-07-35-2	YK-A-5003-4789
	0.5	0.4	7.0	90060-05-04-70-2	YK-A-5003-4790
	1.0	0.7	11	90060-10-07-110-2	YK-A-5003-4791
	2.0	1.4	12	90060-20-14-120-2	YK-A-5000-3609

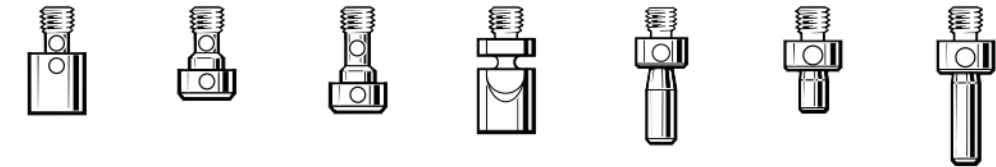
測針連接螺紋 Thread size	測球直徑 Ball Dia.	測針直徑 Stem Dia.	有效工作長度 Effective length	訂購編號 Order No.	型號 Model
M4	1.0	0.7	88.5	90060-10-07-885-4	YK-A-5000-6462
	2.0	1.4	38.5	90060-20-14-385-4	YK-A-5000-7098

測針中心座 Stylus Centres

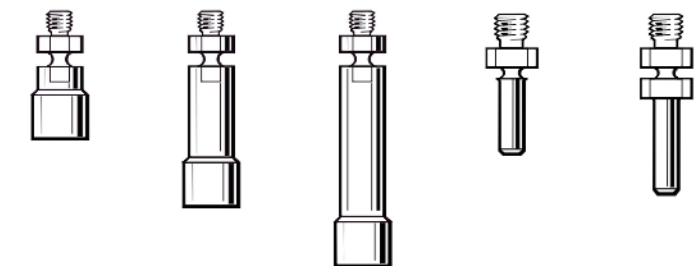


訂購編號 Order No.	90070-75-75-2	90070-75-70-2	90070-130-100-3	90070-180-150-4	90070-150-150-4
型號 Model	A-5000-8395 四向 4-way	A-5000-3627 五向 5-way	A-5000-7610 五向 5-way	A-5000-7792 五向 5-way	YK-M-5000-6460 星形中心座 Star Styli
螺紋規格 Thread size	M2	M2	M3	M4	M4
有效長度 Effective length	7.5	7.5	13.0	18.0	15.0
中心座尺寸 Centre size	7.5	7.0	10.0	15.0	15.0
質量 Mass grammes	1.1	0.8	3.6	12.1	-

碰撞保護裝置 Crash protection device



訂購編號 Order No.	90080-80-18-4	90080-80-14-4	90080-100-15-4	90080-120-27-4	90080-152-46-4	90080-90-15-4	90080-160-21-4
型號 Model	YK-M-5000-7582 M4	YK-M-5000-7587 M4	YK-M-5000-7588 M4	YK-M-5000-0069 M4	YK-A-5003-0661 M4	YK-M-2197-0156 M4	YK-M-2197-0150 M4
長度 Effective length	8.0	8.0	10.0	12.0	15.2	9.0	16.0
質量 Mass grammes	1.8	1.4	1.5	2.7	4.6	1.5	2.1
適用於 Apply to	LP2	LP2	LP2	MP10 MP12 RMP60 OMP60 MP3 MP11	TS27R	HPMA HPRA HPPA	HPMA HPRA HPPA



訂購編號 Order No.	90080-133-24-3	90080-223-36-3	90080-303-45-3	90080-135-13-3	90080-190-22-3
型號 Model	YK-M-2008-0333 M3	YK-M-2008-0604 M3	YK-M-2008-0605 M3	YK-M-2048-2093 M4	YK-M-2116-0127 M4
長度 Effective length	13.3	22.3	30.3	13.5	19.0
質量 Mass grammes	2.43	3.6	4.5	1.37	2.2
適用於 Apply to	TS20	TS20	TS20	RP1/2	TSA