日本電針コンタクトプローブ

DENSHIN

DENSHIN'S CONTACT PROBES

日本電針株式会社
NIHON DENSHIN CO.,LTD

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DENSHIN'S SPRING CONTACT PROBES

弊社製品は長年にわたる経験と実績、豊富な技術の蓄積により高信頼性製品を電子機器産業界に供給致しております。
オリジナルは3,000種を超え各種在庫を取り揃えておりますので豊富な種類から、お客様のニーズに適した機種をご選定下さい。
今後もユーザーニーズにお答えするべく新製品を定期的に発表して参りますのでよろしくお願い申し上げます。又、特別仕様品もお受けいたします。

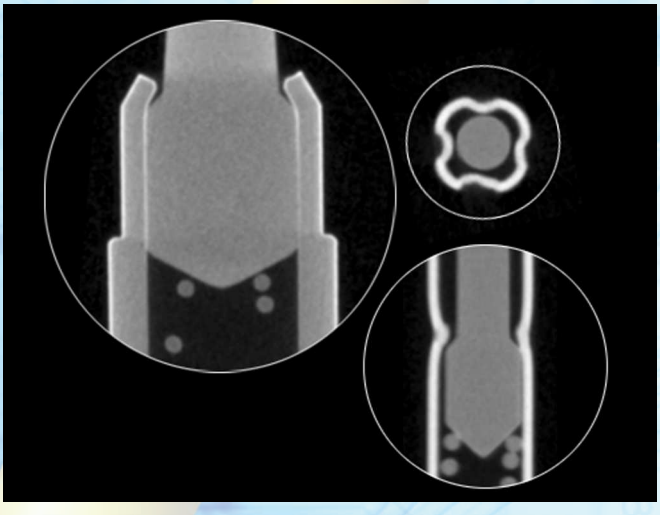
The Nihon Denshin supply high quality contact probes to innumerable users at home and abroad. We have many years experience in the spring contact probe technology and rich know-how on production of the probes, with an excellent reputation in the world for performance and reliability of our products.

The number of our original products is exceeding 3,000 kinds, and we maintain a stock of wide range of products at all times, to be prepared for off-the-shelf deliveries to meet developed products periodically, and should there be any need for special items, please feel free to contact us for further details and information. We shall be most happy, if we could be of any assistance to you.

プローブエージング装置<endurance test equipment>

測定顕微鏡<Measuring Microscope>

X線CT装置<X-ray Inspection System>



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仕様は予告無く変更する事がございます。

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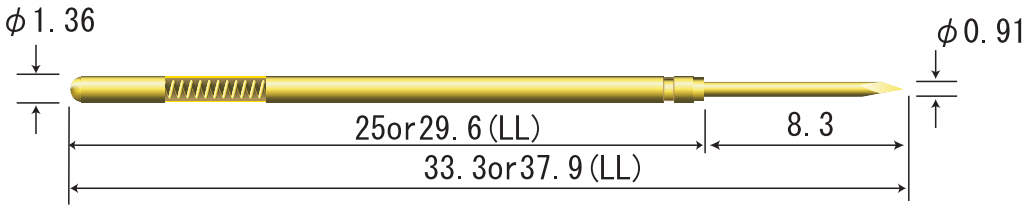
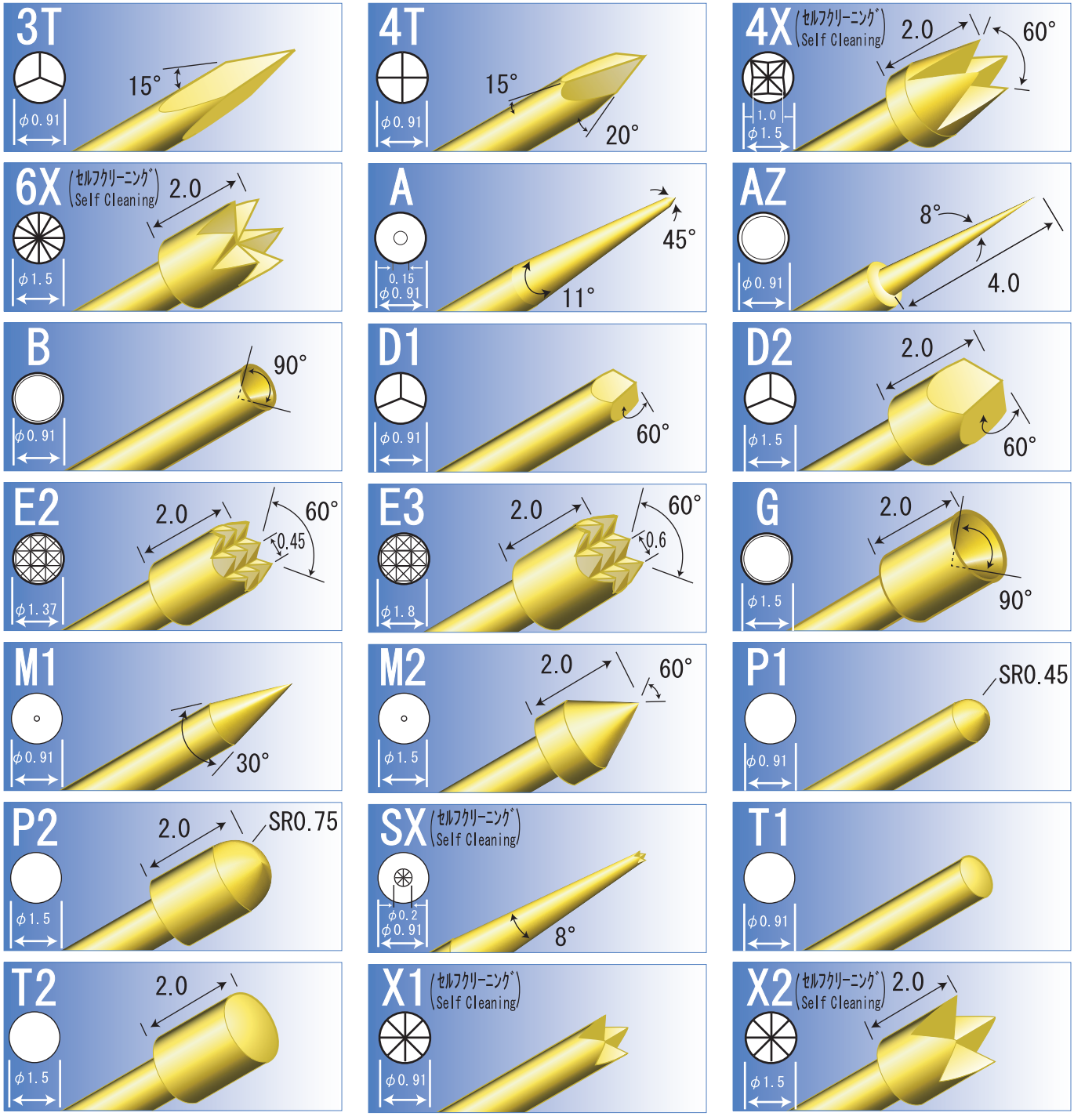
注意:バネの圧力により、プランジャーが飛び出す危険がありますので取り扱いに充分ご注意下さい。

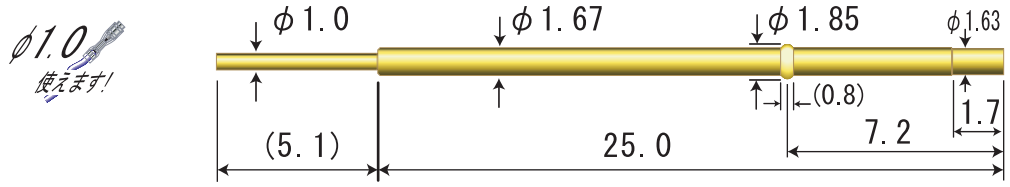


先端形状<Tip Style>



適合ソケット<Receptacle>

C-1.37Q-S-1A （材　質 :SUS又はSUS、Auめっき）
(Materials :Au Plated stainless steel or no plated)



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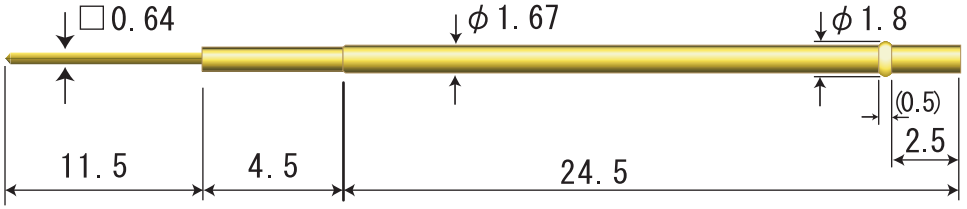

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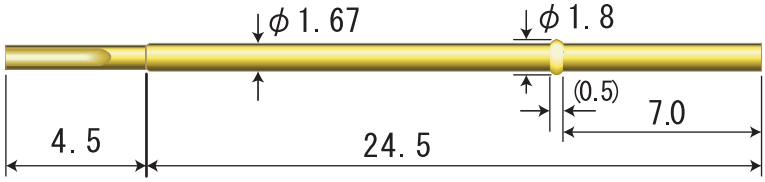

C-07-S9-N （材　質 :真鍮、Auめっき）
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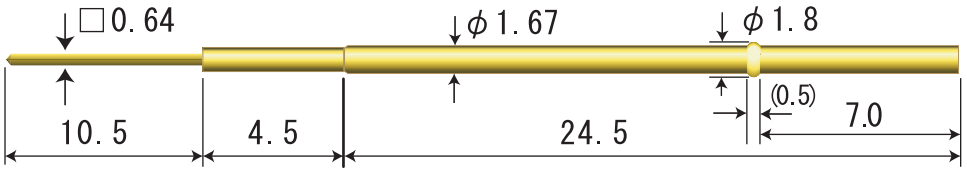


材質・表面処理/Materials

プランジャー :SK材HV650
Ni下地、Auめっき
スプリング :SWP、AUめっき又はSUS(220gのみ)
スリーブ :りん青銅、Ni下地、Auめっき

Plunger :Au over Nickel Plated High Carbon steel
Barrel :Au over Ni Plated Phosphor Bronze
Spring :Au plated S.W.P. or Stainless steel(only 220g)

バネ圧/Spring Force

@4.2mm ストローク時 Travel

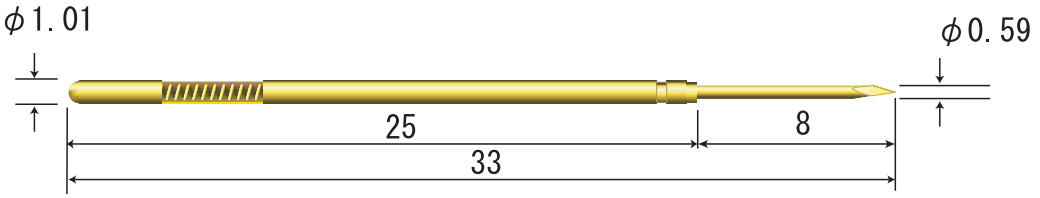
U: 300g
H: 220g
S: 125g

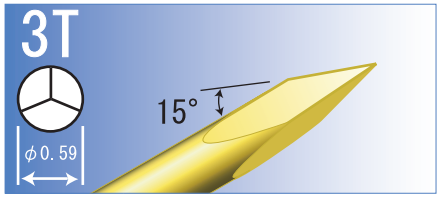
注文方法/How to Order

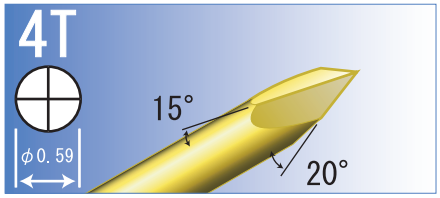
シリーズ Series	先端形状 Tip style	バネ圧 Springforce	長尺Ver. Longer option
ND100 -	□	- □	LL

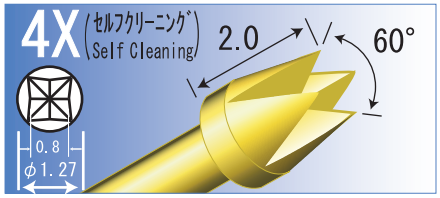
例 Example　ND100-3T-H、ND100-X2-HLL

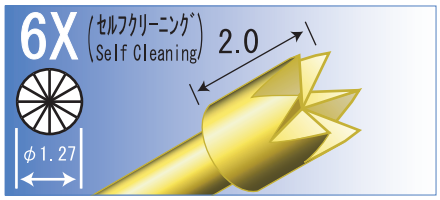
NDO75 Series -ピッチ(Center Pitch) 1.91mm-

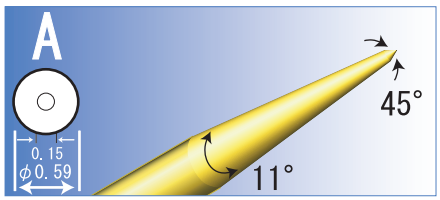


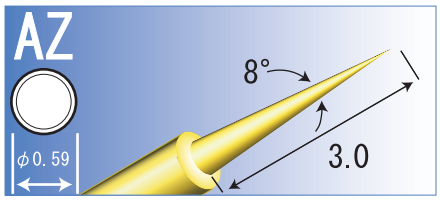


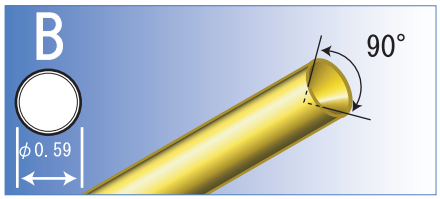


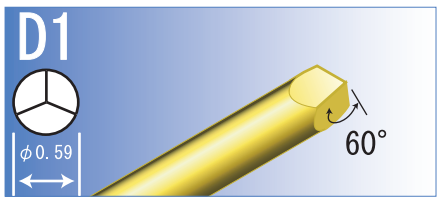


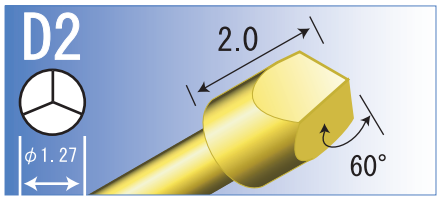


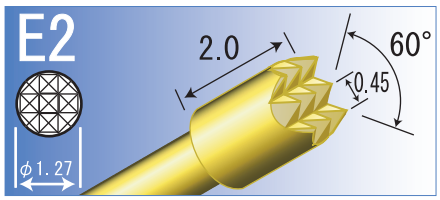


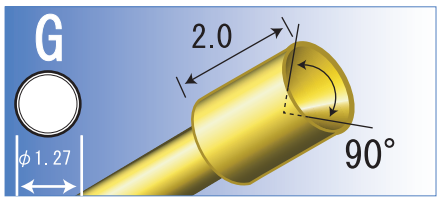


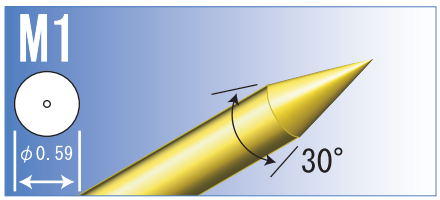


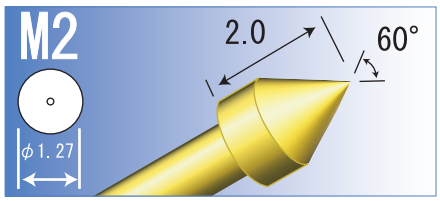


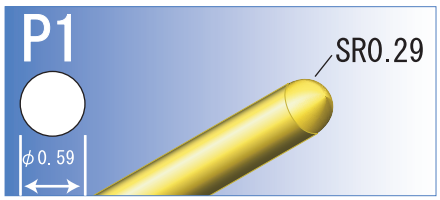


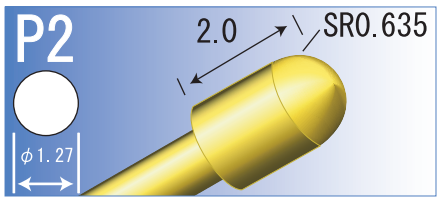


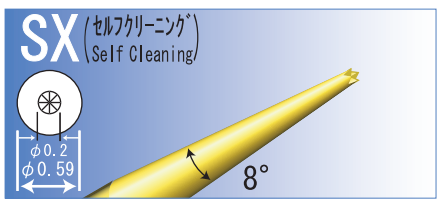


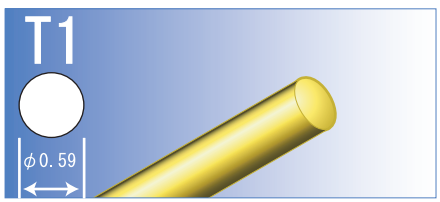


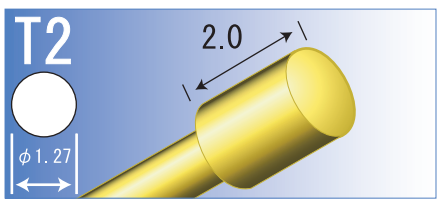


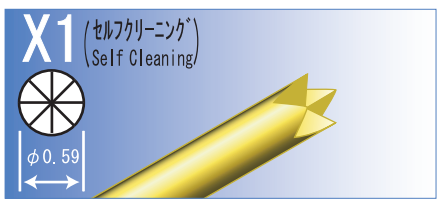


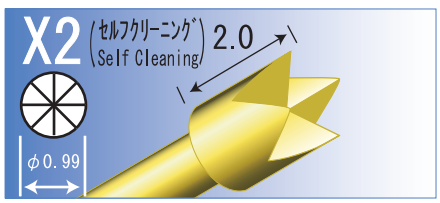






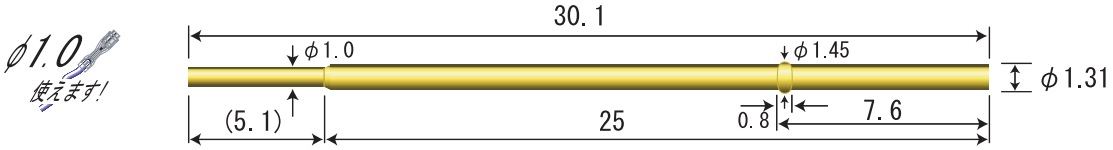




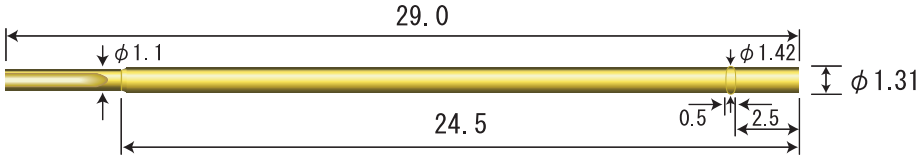


適合ソケット<Receptacle>

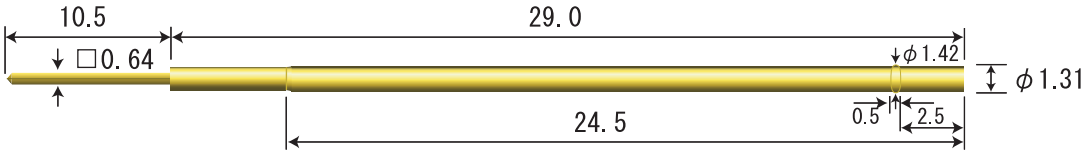
C-075S2 H7.6 （材　質：りん青銅、Ni下地Auめっき）
(Materials :Au over Nickel Plated Phosphor Bronze)



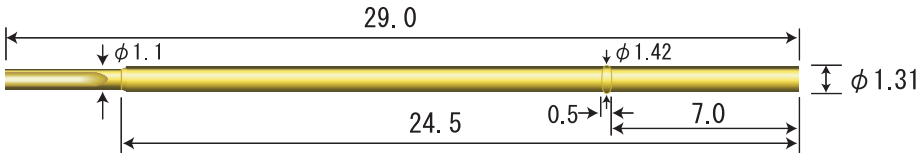
C-06-S2 （材　質：真鍮、Auめっき）
(Materials:Au Plated B.S.T.)



C-06-S2(W.T) （材　質：真鍮、Auめっき）
(Materials :Au Plated B.S.T.)



C-06-S3 （材　質：真鍮、Auめっき）
(Materials:Au Plated B.S.T.)



材質・表面処理/Materials

プランジャー：SK材HV650
　　：Ni下地、Auめっき
スプリング：SWP、AUめっき又はSUS(190gのみ)
スリーブ：りん青銅、Ni下地、Auめっき

Plunger：Au over Nickel Plated High Carbon steel
Barrel：Au over Ni Plated Phosphor Bronze
Spring：Au plated S.W.P. or SUS(only 190g)

バネ圧/Spring Force

@4.2mm ストローク時 Travel

H:　200g

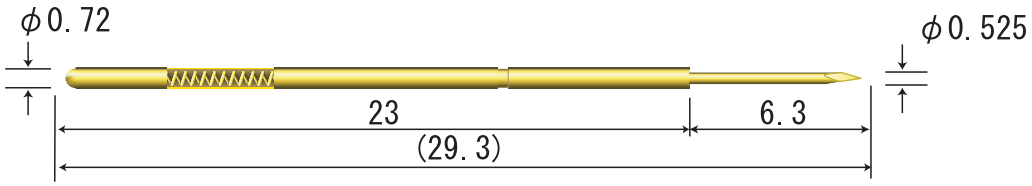
S:　120g

注文方法/How to Order

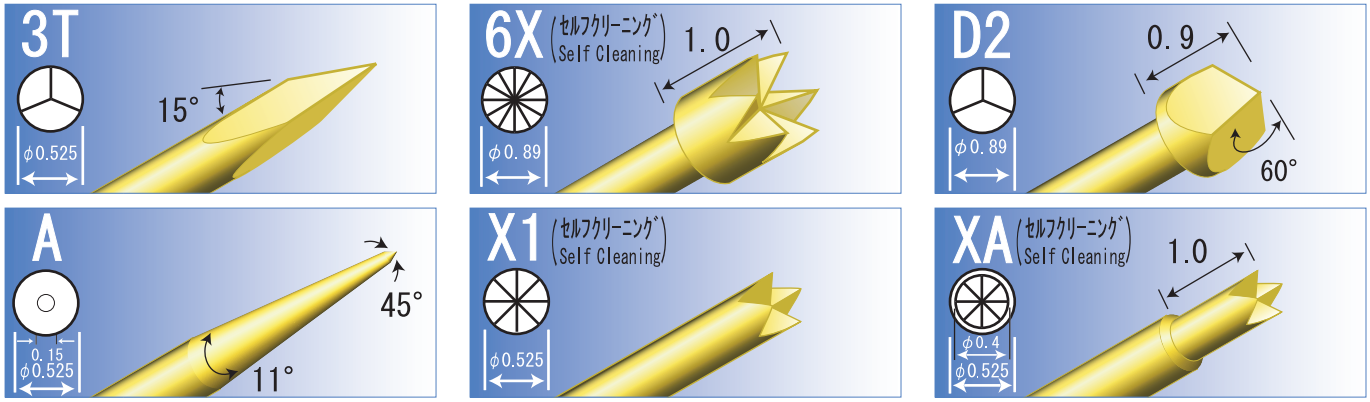
シリーズ Series　先端形状 Tip style　バネ圧 Springforce

ND750 - [　] - [　]

例 Example　ND075-3T-H、ND075-X2-H

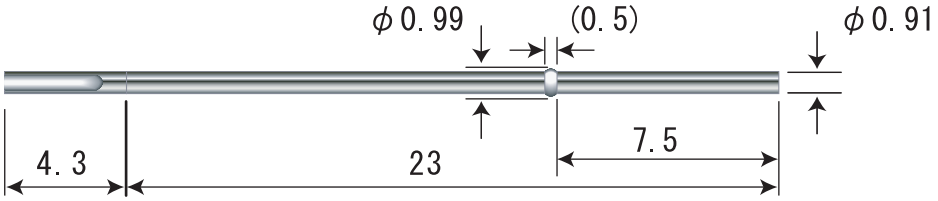


先端形状<Tip Style>



適合ソケット<Receptacle>

C-S1 (材　質 :りん青銅、Niめっき)
(Materials :Ni Plated Phosphor Bronze)



材質・表面処理/Materials

プランジャー:SK材HV650
:Ni下地、Auめっき
スプリング:SWP、AUめっき
スリーブ:りん青銅、Ni下地、Auめっき

Plunger:Gold over Nickel Plated High Carbon steel
Barrel:Gold over Nickel Plated Phosphor Bronze
Spring:Gold plated S.W.P.

バネ圧/Spring Force

@3.6mm ストローク時 Travel

H: 150g

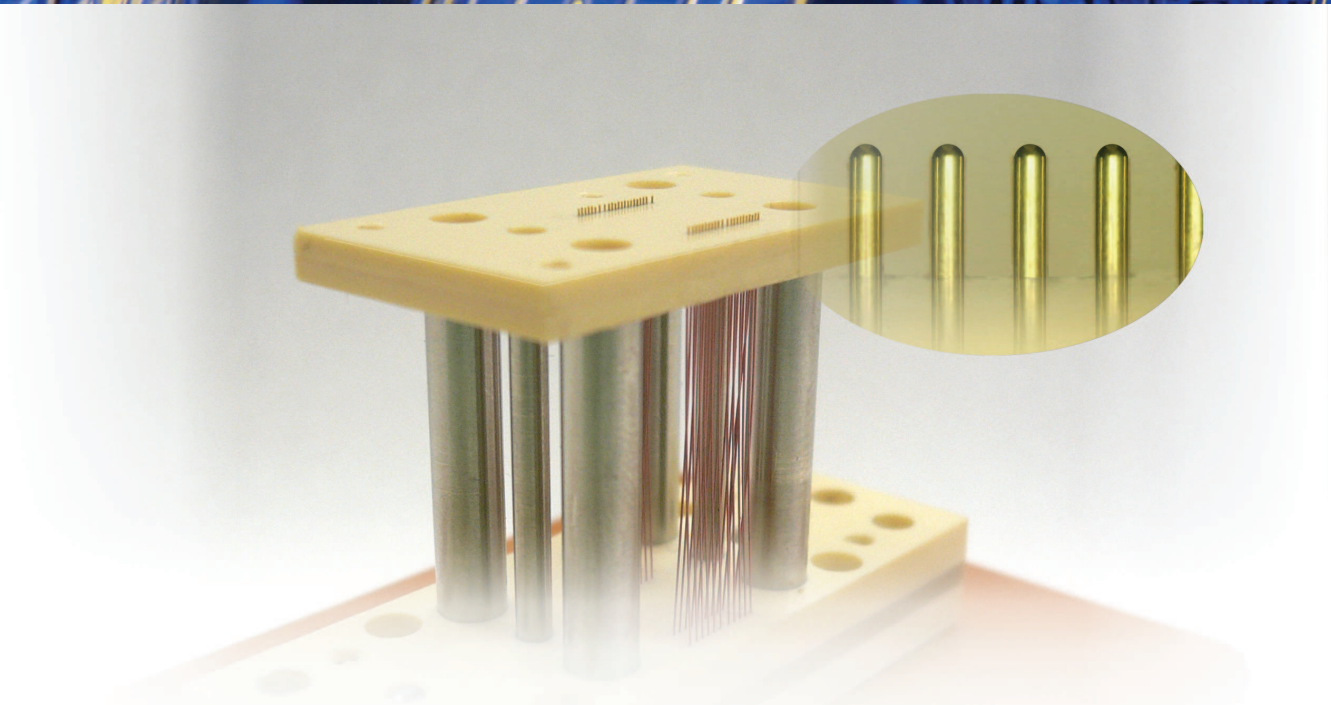
注文方法/How to Order

シリーズ Series　先端形状 Tip style　バネ圧 Springforce

ND050 - [　] - [　]

例 Example　ND050-3T-H、ND050-XA-H

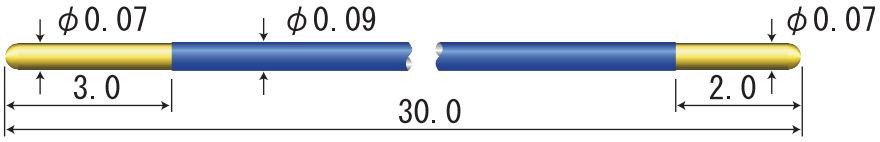
ワイヤープローブ -Wire probe-



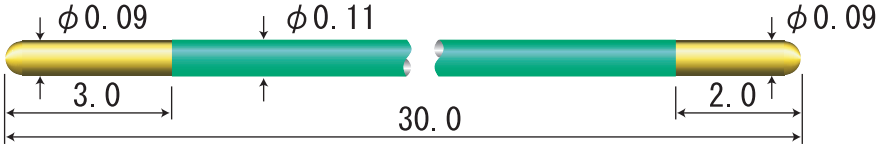
ワイヤープローブは、その「しなり」によってストロークします。複雑な機構を持たないため、微細ピッチに対応可能です。また耐久性も優れています。
ワイヤープローブ単品・治具一式としても提供可能です。

Wire probe is stroked by its bent. A free design from complicated component contributes to make it enable to be used in fine pitch and raise durability. A inquiry of fixture using wire probe is also welcomed.

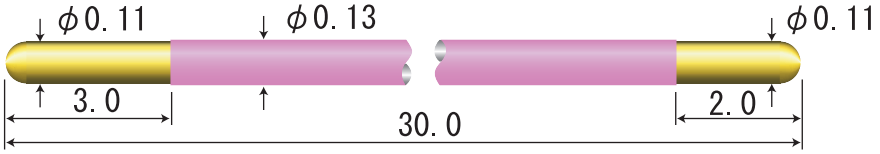
NW-070シリーズ<NW-070 Series>



NW-090シリーズ<NW-090 Series>

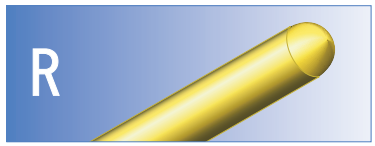


NW-110シリーズ<NW-110 Series>

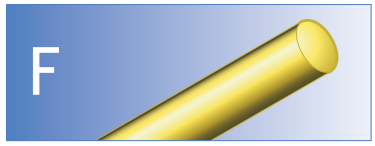


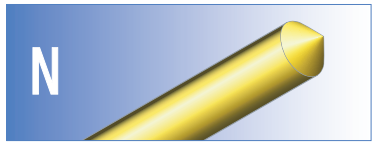
先端形状<Tip Style>

標準<Standard>



オプション<Optional>





材質・表面処理/Materials

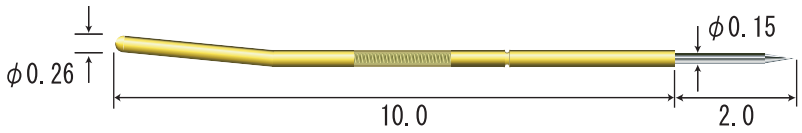
ピ　　ン：タングステン、Ni下地Auめっき
コーティング：アクリルメラミン

Plunger：Gold over Nickel plated Tungsten
Corting：Acryl Meramine

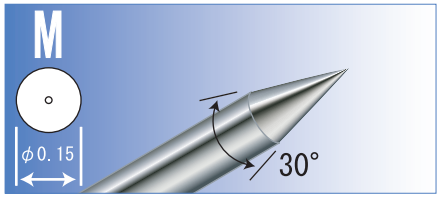
注文方法/How to Order

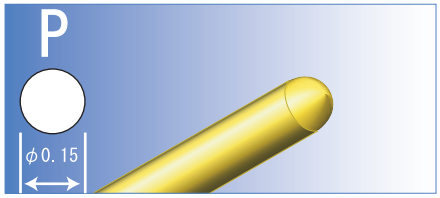
シリーズ Series	3.0㎜側先端形状 Tipstyle of 3.0mm side	2.0㎜側先端形状 Tipstyle of 2.0mm side	
NW-07030 NW-09030 NW-11030			-3020

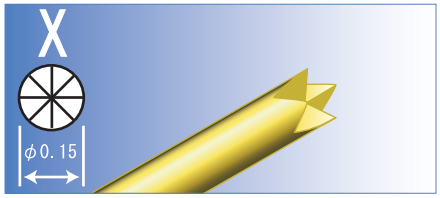
例 Example　NW-07030RR-3020、NW-09030RR-3020
NW-07030RF-3020、NW-07030FF-3020



先端形状<Tip Style>

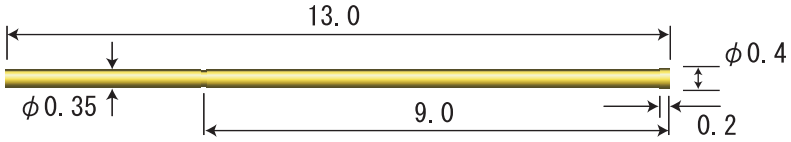




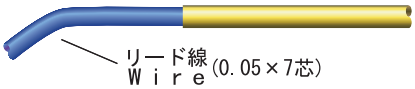


適合ソケット<Receptacle>

0.26-S-1



リード線付きソケット



ソケットにリード線加工も承ります。
It is available for soldering receptacle with wire by demand.

材質・表面処理/Materials

プランジャー:SK材HRC60(HV700)
:Ni下地、Auめっき
スプリング:SWP、AUめっき
2/3ストローク16g
スリーブ:りん青銅Auクラッド
ソケット:りん青銅、Ni下地、Auめっき

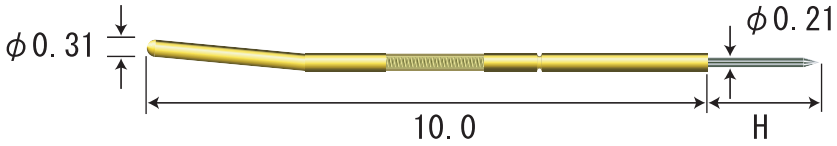
Plunger:Goald Plated High Carbon steel
Barrel:Gold Plated Phosphor Bronze
Spring:Gold Plated Music Wire
Receptacle:Gold Plated Phosphor Bronze

注文方法/How to Order

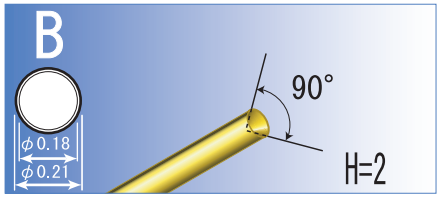
シリーズ Series　先端形状 Tipstyle

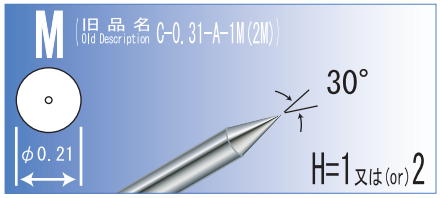
C-0.26 - [　　]

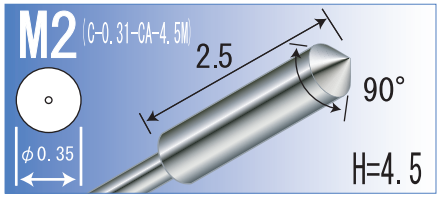
例 Example　C-0.26-M、C-0.26-X

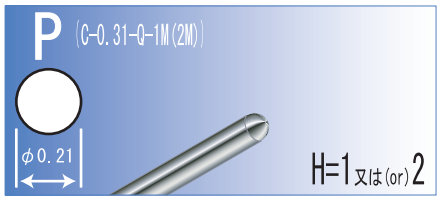


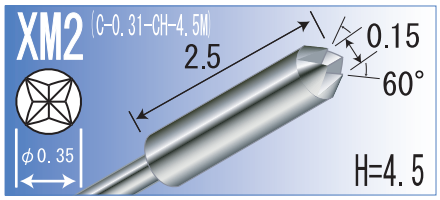
先端形状<Tip Style>



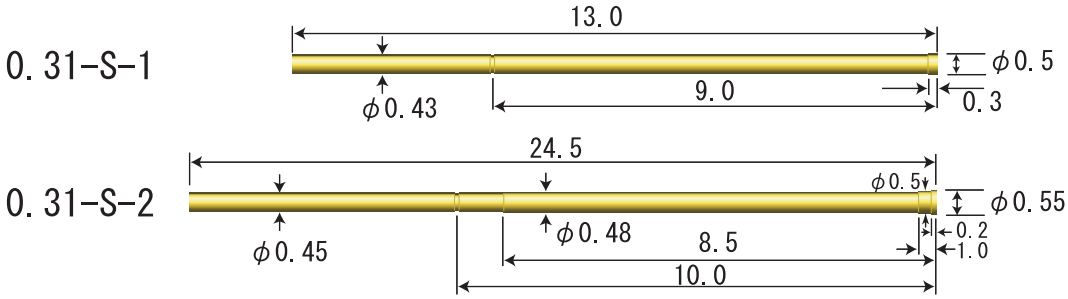




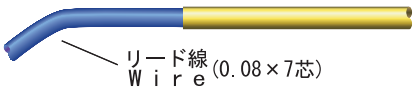




適合ソケット<Receptacle>



リード線付きソケット



各ソケットにリード線加工も承ります。
It is available for soldering receptacle with wire by demand.

材質・表面処理/Materials

プランジャー:SK材HRC60(HV700)
:Ni下地、ロジウムめっき
スプリング:SWP、AUめっき
:2/3ストローク30～40g
スリーブ:りん青銅金クラッド又はNi下地Auめっき
ソケット:真鍮又はりん青銅Ni下地、Auめっき

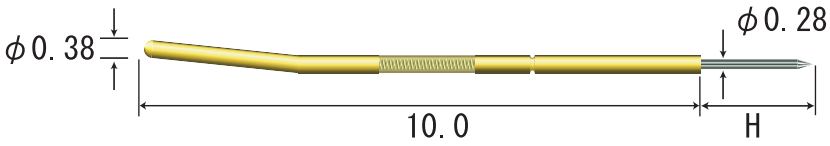
Plunger:Rhodium Plated High Carbon steel
Barrel:Gold plated Phosphor Bronze
Spring:Gold plated S.W.P.
Receptacle:Gold Plated Phosphor Bronze
Springforce:30～40g (2/3travel)

注文方法/How to Order

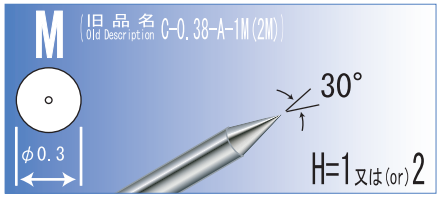
シリーズ Series　先端形状 Tip style　H高さ Height

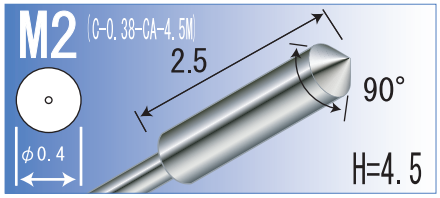
C-0.31 - [　　]　(　)

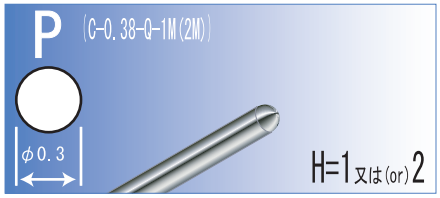
例 Example　C-0.31-M(1)、C-0.31-XM2(4.5)

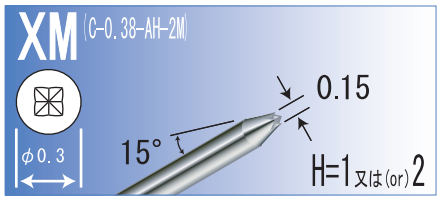


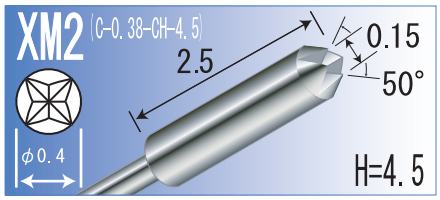
先端形状<Tip Style>





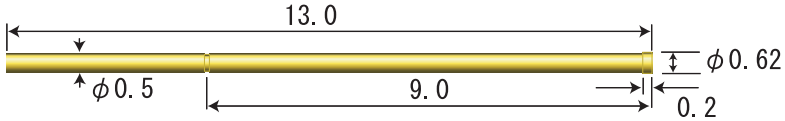




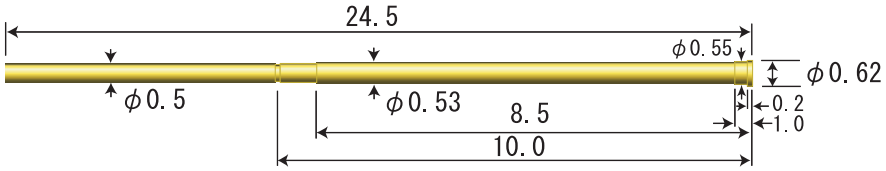


適合ソケット<Receptacle>

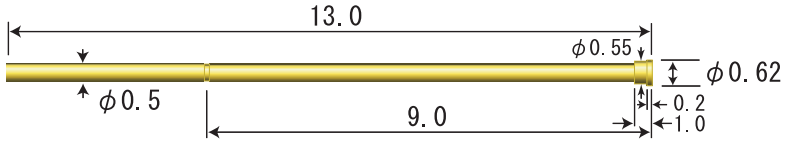
0.38-S-1



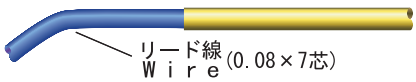
0.38-S-2



0.38-S-3



リード線付きソケット



各ソケットにリード線加工も承ります。
It is available for soldering receptacle with wire by demand.

材質・表面処理/Materials

プランジャー:SK材HRC60(HV700)
:Ni下地、ロジウムめっき
スプリング:SWP、AUめっき
:2/3ストローク40～50g
スリーブ:りん青銅金クラッド又はNi下地Auめっき
ソケット:真鍮又はりん青銅Ni下地、Auめっき

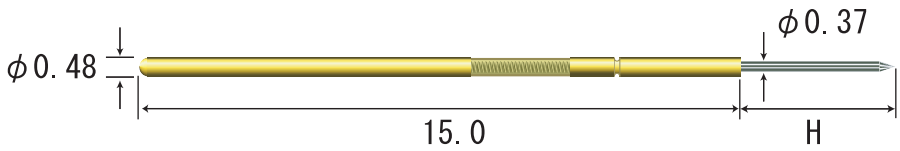
Plunger:Rhodium plated High Carbon steel
Barrel:Gold over Nickel plated Phosphor Bronze
Spring:Gold plated S.W.P.
Receptacle:Gold plated B.S.T.or Phosphor Bronze
Springforce:40～50g (2/3travel)

注文方法/How to Order

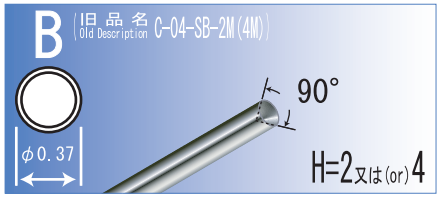
シリーズ Series　先端形状 Tip style　H高さ Height

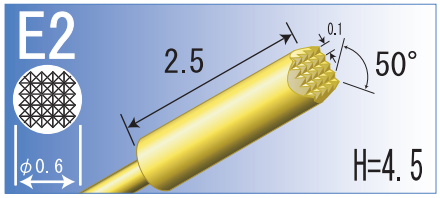
C-0.38 - [　　]　(　)

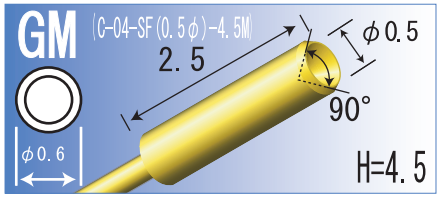
例 Example　C-0.38-M(1)、C-0.38-XM2(4.5)

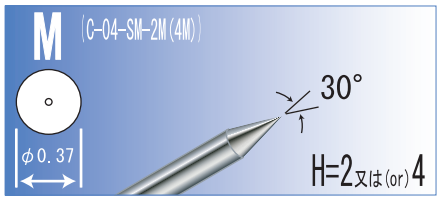


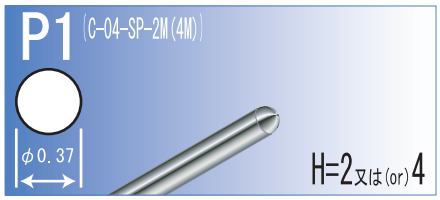
先端形状<Tip Style>

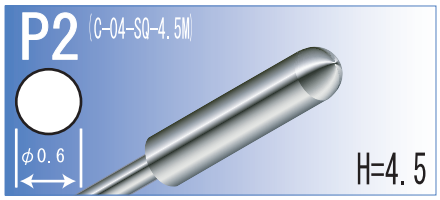


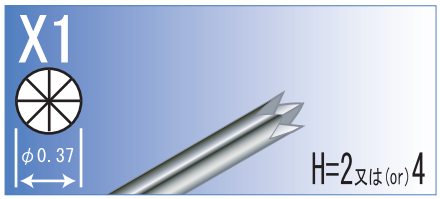


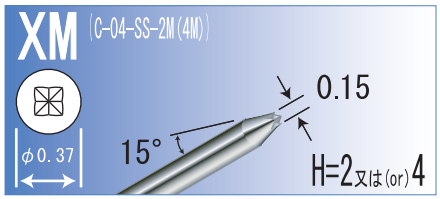






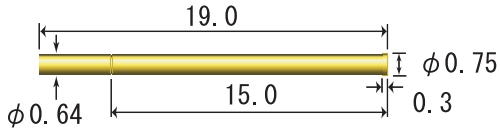




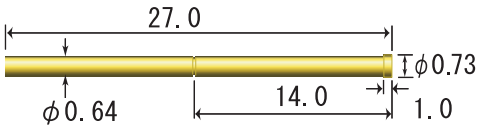


適合ソケット<Receptacle>

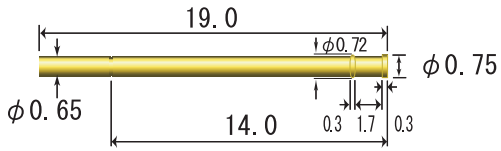
C-04-S1



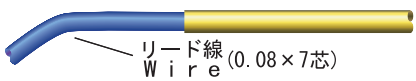
C-04-S2



C-04-S5



リード線付きソケット



各ソケットにリード線加工も承ります。
It is available for soldering receptacle with wire by demand.

材質・表面処理/Materials

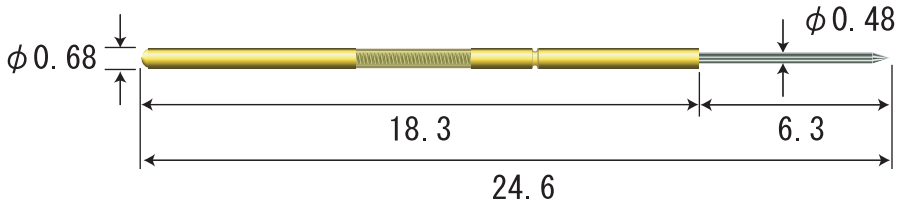
プランジャー:SK材HRC60(HV700)
Ni下地、ロジウムめっき
スプリング:SWP、AUめっき
2/3ストローク50g±10g
スリーブ:りん青銅、Auめっき
ソケット:真鍮、Ni下地、Auめっき

Plunger:Rhodium plated High Carbon steel
barrel:Gold plated Phosphor Bronze
Spring:Gold plated S.W.P.
Receptacle:Gold Plated B.S.T.or Phosphor Bronze
Springforce:40~50g (2/3travel)

注文方法/How to Order

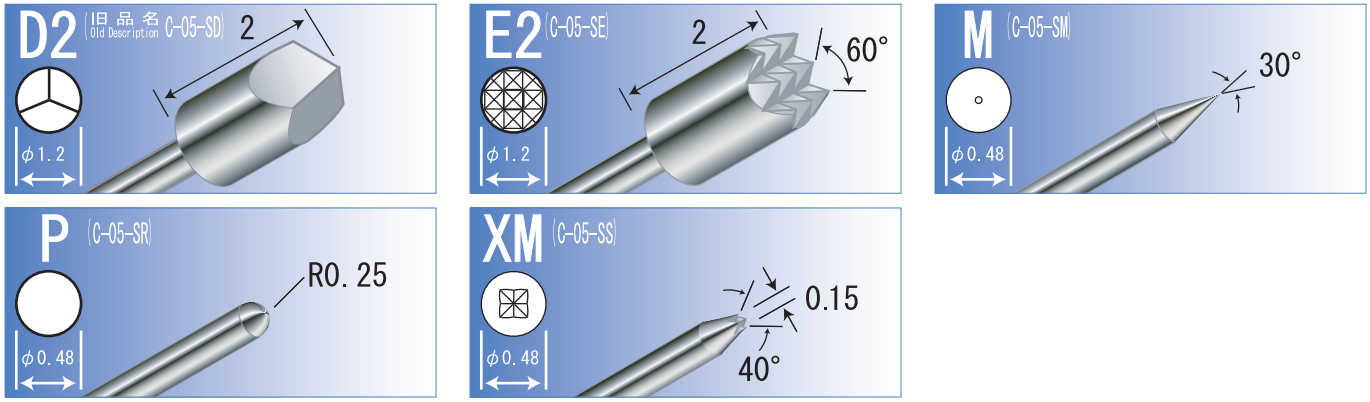
シリーズ Series	先端形状 Tip style	H高さ height
C-04 -		( )

例 Example C-04-B(2)、C-04-GM(4.5)



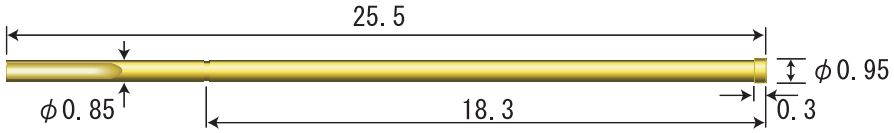
最大ストローク Maximum Stroke 4.5mm　　推奨ストローク Working Stroke 3mm

先端形状<Tip Style>

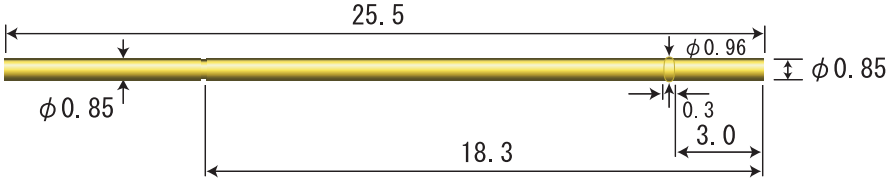


適合ソケット<Receptacle>

C-05-S1



C-05-S2



材質・表面処理/Materials

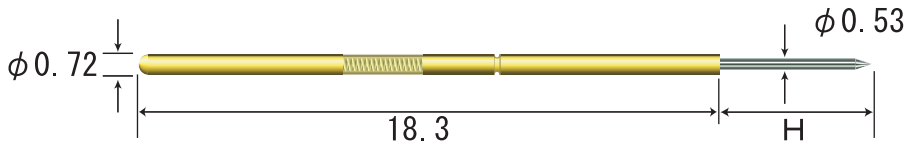
プランジャー:SK材HRC60(HV700)
　　:Ni下地、ロジウムめっき
スプリング:SWP、AUめっき
　　:2/3ストローク100g
スリーブ:りん青銅、Ni下地Auめっき
ソケット:BSBM、Auめっき

Plunger:Rhodium plated High Carbon steel
Barrel:Au over Nickel plated Phosphor Bronze
Spring:Gold plated S.W.P.
Receptacle:Gold plated BSBM
SpringForce:100g (2/3travel)

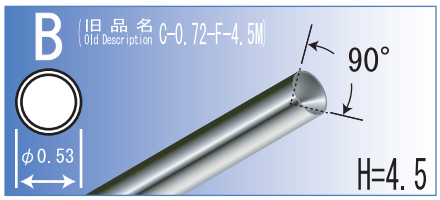
注文方法/How to Order

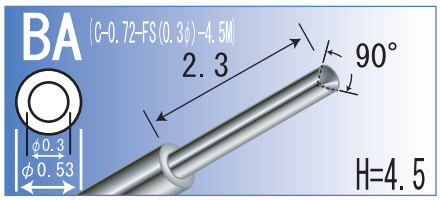
シリーズ Series	先端形状 Tip style
C-05	- □

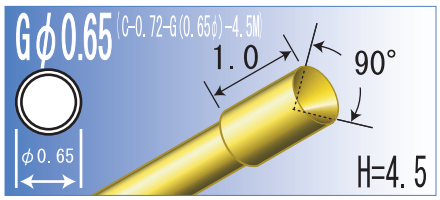
例 Example　C-05-E2、C-05-D2

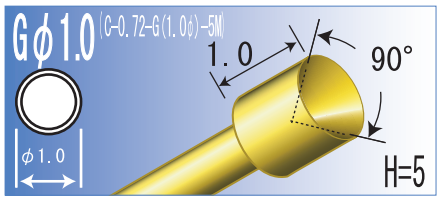


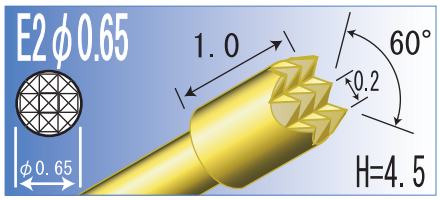
先端形状<Tip Style>

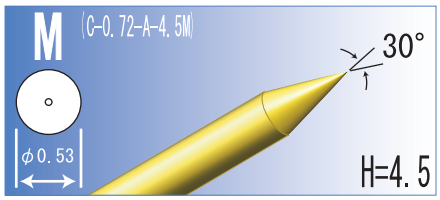


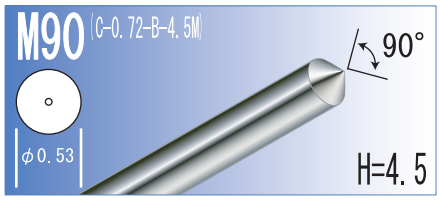


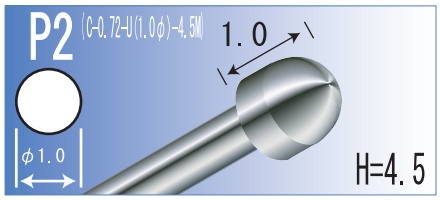


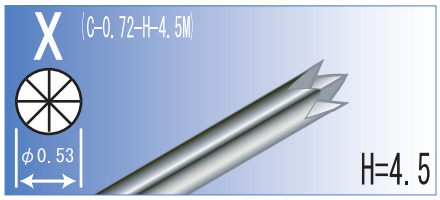






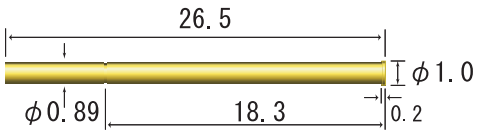




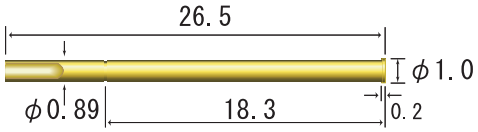


適合ソケット<Receptacle>

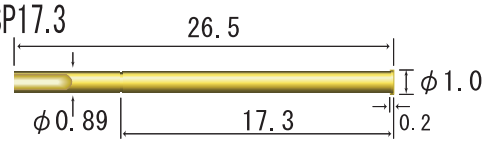
0.72S-1



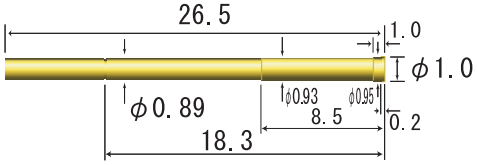
0.72S-1-U



C-0.72S-1-U SP17.3



0.72S-3



材質・表面処理/Materials

プランジャー:SK材HRC60(HV700)又はベリリウム銅
Ni下地、ロジウム又はAuめっき
スプリング:SWP、AUめっき
:2/3ストローク80g・100g
スリーブ:BST又はりん青銅、Ni下地、Auめっき
ソケット:BST、Ni下地、Auめっき

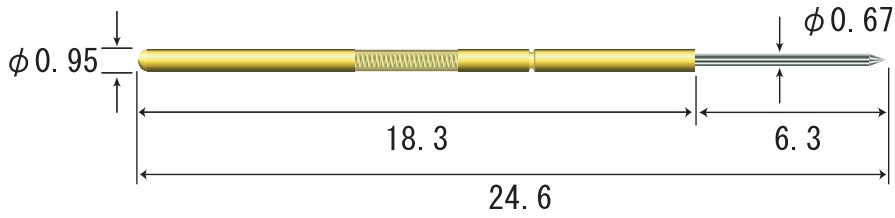
Plunger:Rhodium or Au over Nickel plated
High Carbon steel or Berylium copper
Barrel:Gold plated B.S.T.or PB
Spring:Gold plated S.W.P.
Receptacle:Gold plated B.S.T.
SpringForce:80 or 100g (2/3travel)

注文方法/How to Order

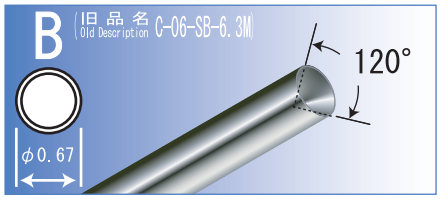
シリーズ Series　先端形状 Tip style

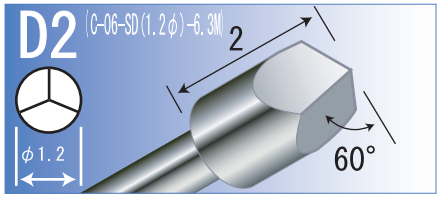
C-0.72 - [　　]

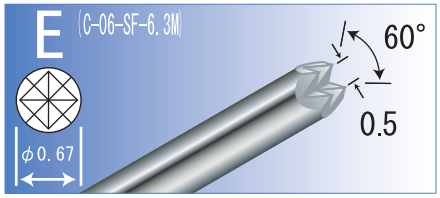
例 Example　C-0.72-B、C-0.72-Gφ1.0

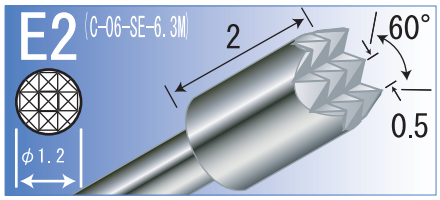


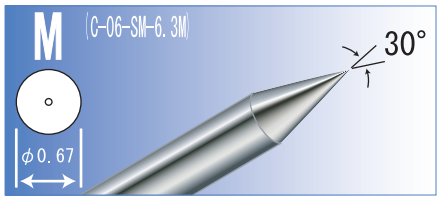
先端形状<Tip Style>

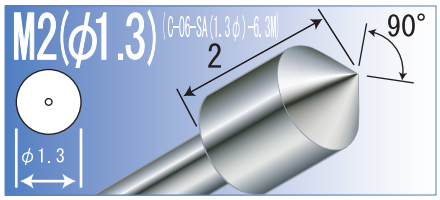


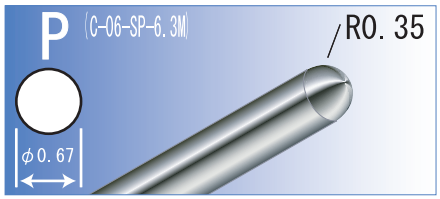


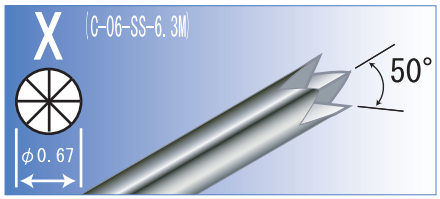


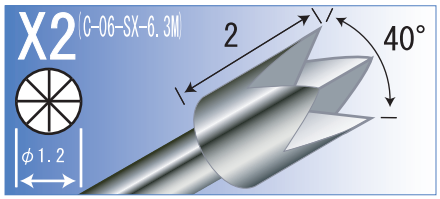






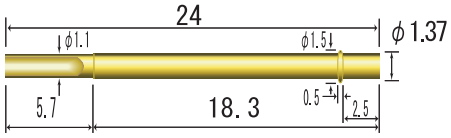




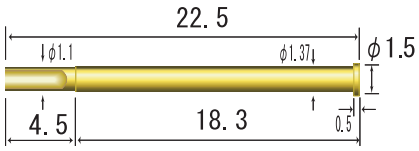


適合ソケット<Receptacle>

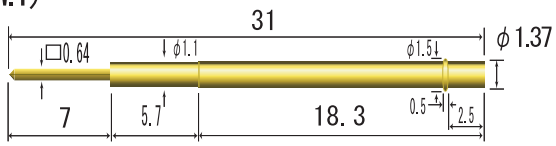
C-06-S1



C-06-S4



C-06-S1(W.T)



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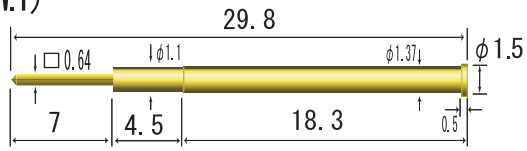


材質・表面処理/Materials

プランジャー:SK材HRC60(HV700)又はベリリウム銅
Ni下地、ロジウムめっき
スプリング:SWP、AUめっき
2/3ストローク80g・100g
スリーブ:洋白、Ni下地Auめっき
ソケット:BST、Ni下地Auめっき

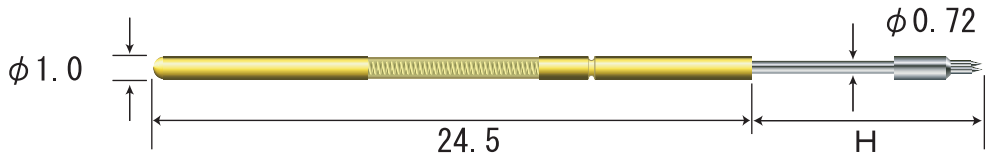
Plunger:Rhodium over Nickel plated High Carbon steel or Berylium copper
Barrel:Gold plated Nickel Silver
Spring:Gold plated S.W.P.
Receptacle:Gold Plated B.S.T.
SpringForce:80 or 100g (2/3travel)

注文方法/How to Order

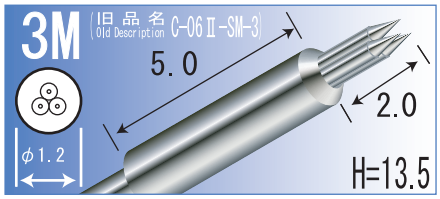
シリーズ Series　先端形状 Tip style

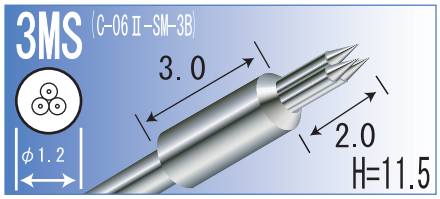
C-06 - [　　]

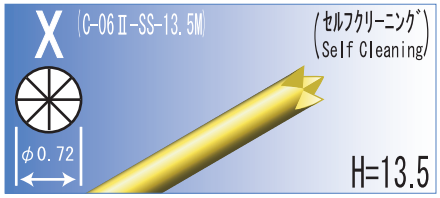
例 Example　C-06-B、C-06-X2



先端形状<Tip Style>

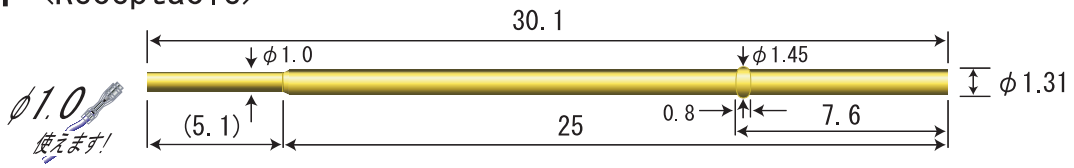




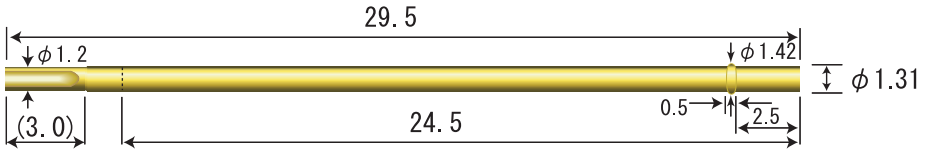


適合ソケット<Receptacle>

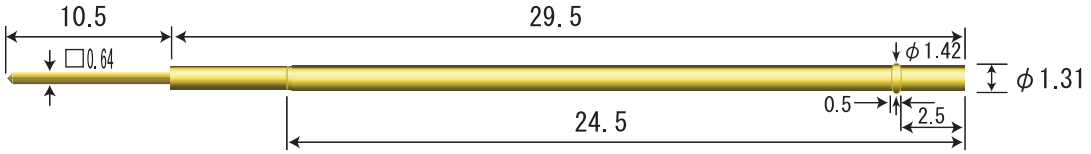
C-075S2 H7.6



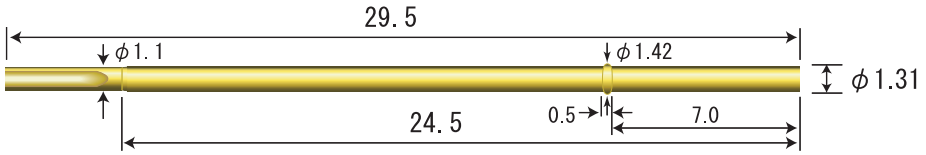
C-06-S2



C-06-S2(W.T)



C-06-S3



材質・表面処理/Materials

プランジャー:SK材HRC60(HV700)又はベリリウム銅
Ni下地、Au又はロジウムめっき
スプリング:SWP、AUめっき
2/3ストローク150g
スリーブ:洋白、Ni下地、Auめっき
ソケット:BST、Ni下地、Auめっき

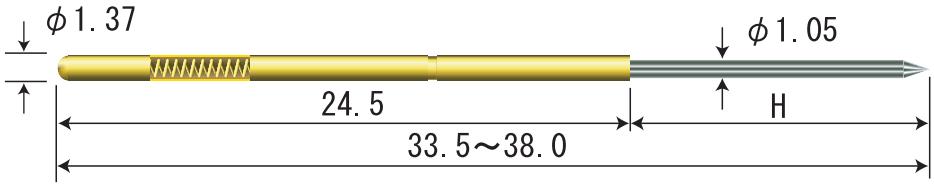
Plunger:Rhodium over Nickel plated High Carbon steel or Berylium copper
Barrel:Gold plated Nickel Silver
Spring:Gold plated S.W.P.
Receptacle:Gold plated B.S.T.
SpringForce:150g (2/3travel)

注文方法/How to Order

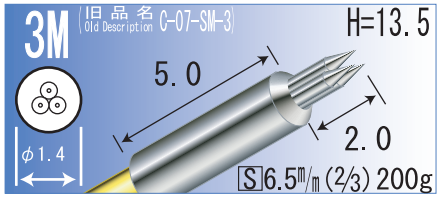
シリーズ Series　先端形状 Tip style

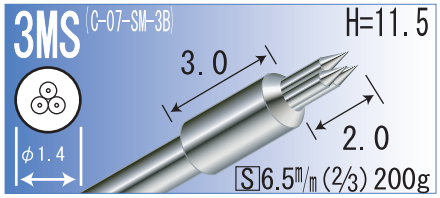
C-06Ⅱ - [　　]

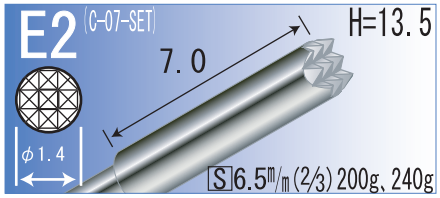
例 Example　C-06Ⅱ-3M、C-06Ⅱ-3MS

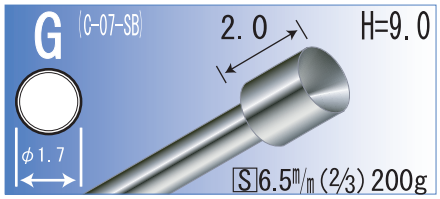


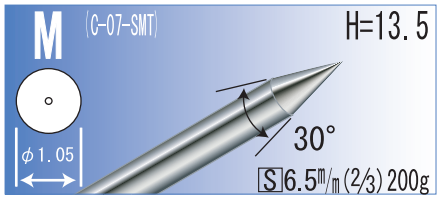
先端形状<Tip Style>

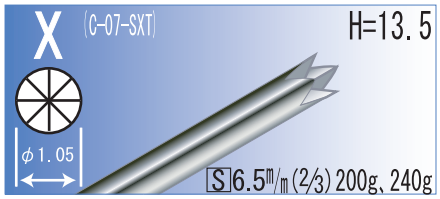






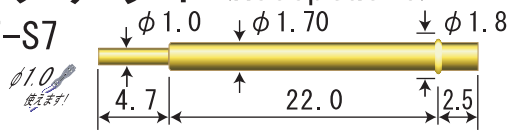




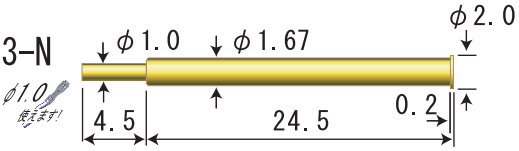


適合ソケット<Receptacle>

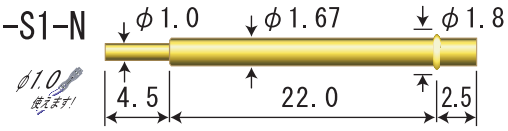
C-07-S7



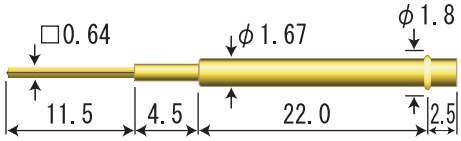
C-07-S3-N



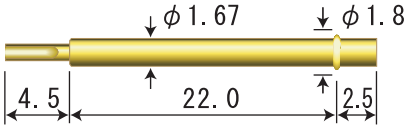
C-07-S1-N



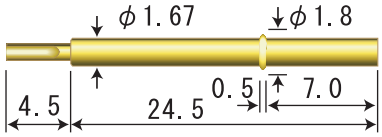
C-07-S5-N



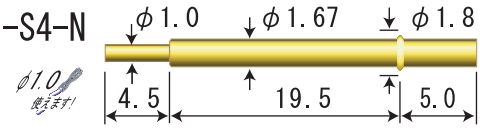
C-07-S2-N



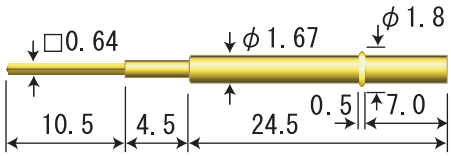
C-07-S8-N



C-07-S4-N



C-07-S9-N



材質・表面処理/Materials

プランジャー:SK材、Ni下地ロジウムめっき
スプリング:SWP、Auめっき
スリーブ:BSBM、Auめっき
ソケット:BST、Auめっき

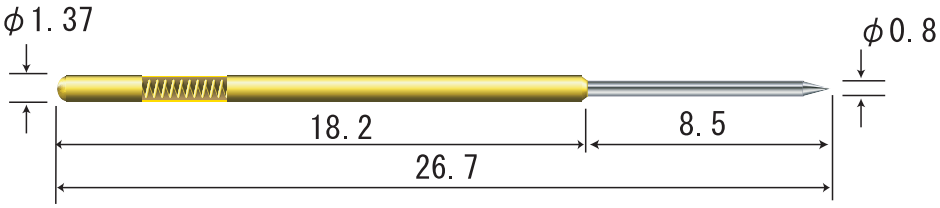
Plunger:Rhodium over Nickel Plated High Carbon steel
Barrel:Gold Plated BSBM
Spring:Gold Plated Music Wire
Receptacle:Gold Plated BST

注文方法/How to Order

シリーズ Series　先端形状 Tip style　バネ圧 Springforce

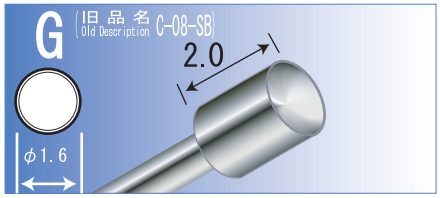
C-07 - [　] - [　]

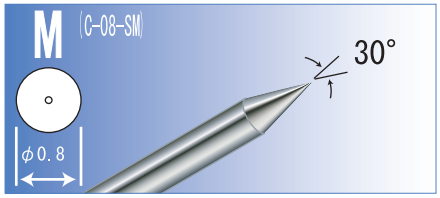
例 Example　C-07-3M-200g、C-07-X-240g

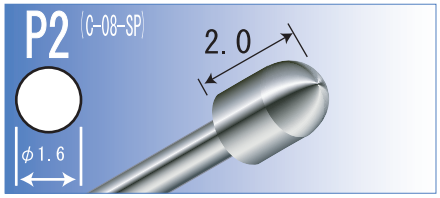


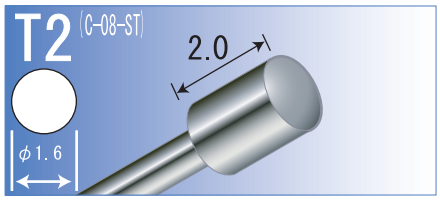
S 6.5㎜/㎜(2/3) 170g

先端形状<Tip Style>



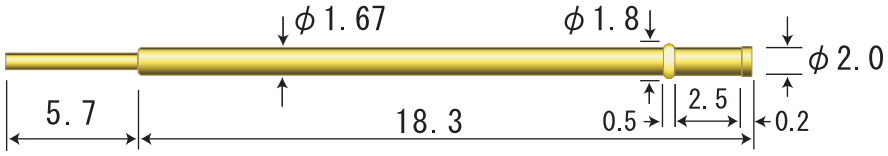




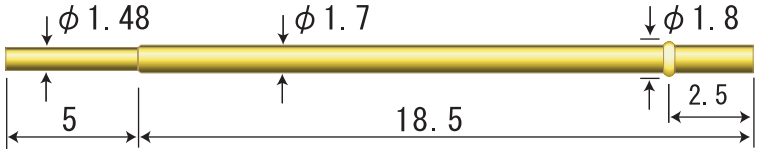


適合ソケット<Receptacle>

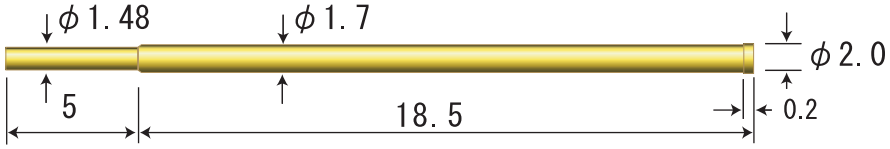
1.37S-5



C-08-S1 ø1.5 使えます!



C-08-S3 ø1.5 使えます!



材質・表面処理/Materials

プランジャー:SK材HRC60(HV700)
Ni下地、ロジウムめっき
スプリング:SWP、AUめっき
2/3ストローク170g
スリーブ:BSBM、Auめっき
ソケット:BSBM、Auめっき

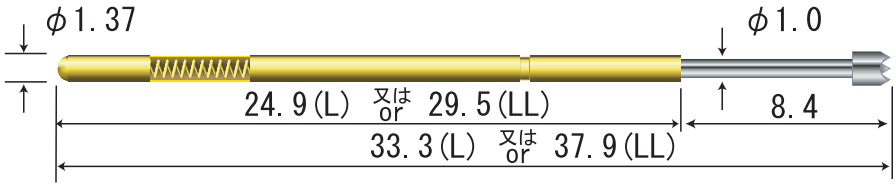
Plunger:Rhodium Plated High Carbon steel
Barrel:Au plated BSBM
Spring:Au plated S.W.P.
Receptacle:Au plated BSBM
SpringForce:170g (2/3travel)

注文方法/How to Order

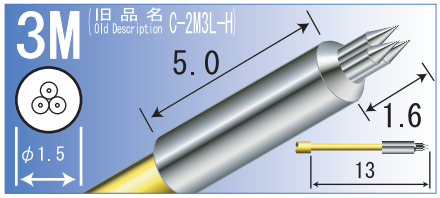
シリーズ Series　先端形状 Tip style

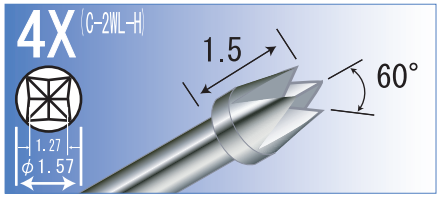
C-08 - [　　]

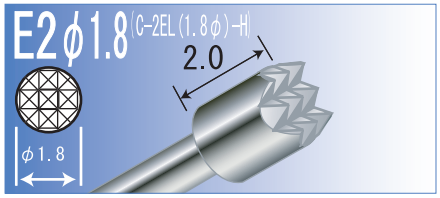
例 Example　C-08-G、C-08-T2

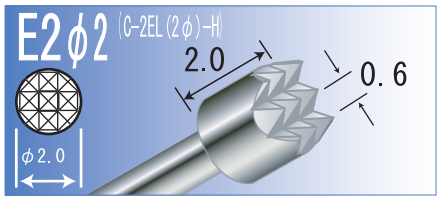


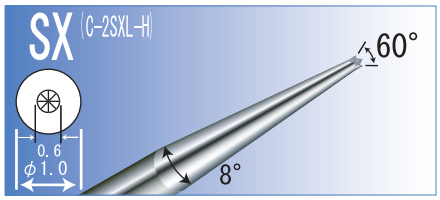
先端形状<Tip Style>

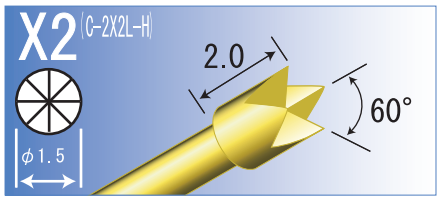












＊ソケットは、７ページのND100用、又は２０ページのC-07用ソケットをご使用下さい。
Receptacle for C-L-H series, refer to ND100 on page 7 or C-07 on page 20.

材質・表面処理/Materials

プランジャー:SK材、ロジウム又はAuめっき
スプリング:SWP、AUめっき
スリーブ:りん青銅、Auめっき
ソケット:真鍮、Auめっき

Plunger:Rhodium or Au Plated High Carbon steel
Barrel:Gold Plated Phosphor Bronze
Spring:Gold Plated Music Wire
Receptacle:Gold Plated B.S.T.

注文方法/How to Order

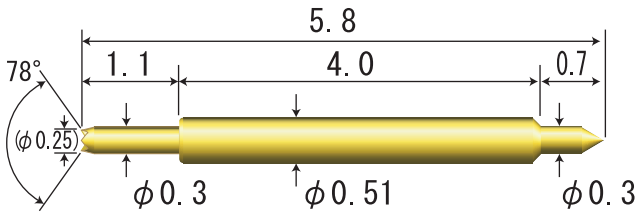
シリーズ Series	先端形状 Tipstyle	長さ length
C -	[ ]	L 又は or LL -H

L :標準(Standard)
LL:ロング品(Longer option)

例
Example C-E2φ1.8L-H、C-X2LL-H
＊3MにはLLはありません
3MLL is not available.

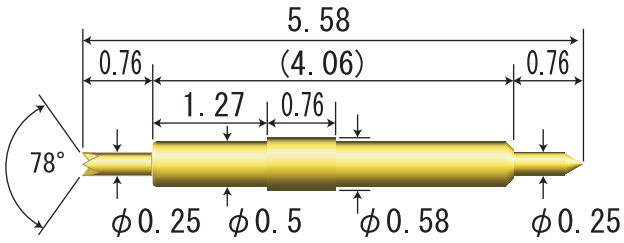
両可動プローブ<Both side traveling>

ND2-051X/M0580-01



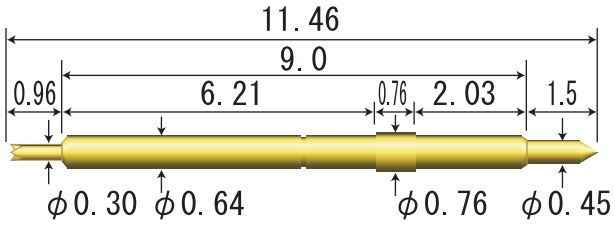
推奨バネ圧 Recomended force	最大バネ圧 Maximum force	めっき仕様 Plating spec
18g@0.51mm	35g@1.21mm	NI, Au

ND3-058X/M0558-01



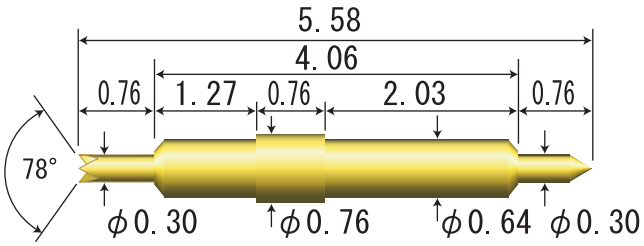
推奨バネ圧 Recomended force	最大バネ圧 Maximum force	めっき仕様 Plating spec
18g@1mm	20g@1.2mm	NI, Au

ND3-076X/M1146-01



推奨バネ圧 Recomended force	最大バネ圧 Maximum force	めっき仕様 Plating spec
50g@1.5mm	62g@1.96mm	NI, Au

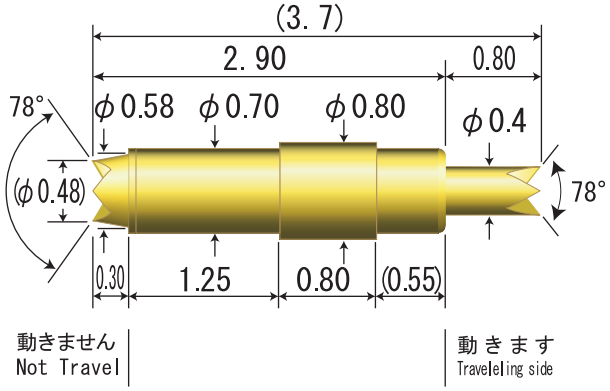
ND3-076X/M0558-01



推奨バネ圧 Recomended force	最大バネ圧 Maximum force	めっき仕様 Plating spec
30g@1mm	40g@1.2mm	NI, Au

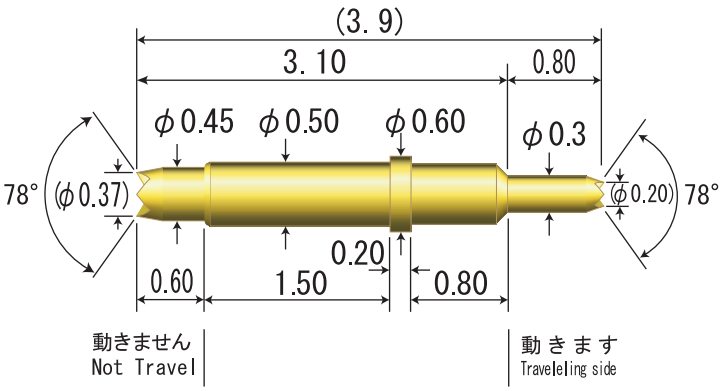
片可動プローブ<Single side traveling>

ND3-080XM/X0370-01



推奨バネ圧 Recomended force	最大バネ圧 Maximum force	めっき仕様 Plating spec
30g@0.54mm	38g@0.8mm	NI, Au

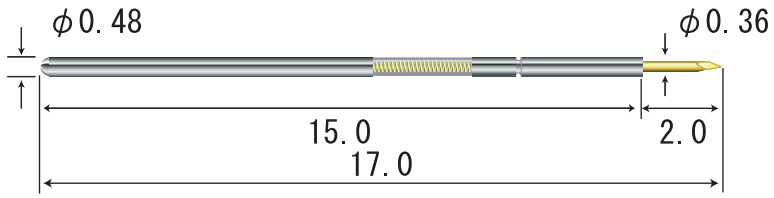
ND3-060XM/XM0390-01



推奨バネ圧 Recomended force	最大バネ圧 Maximum force	めっき仕様 Plating spec
30g@0.51mm	42g@0.8mm	NI, Au

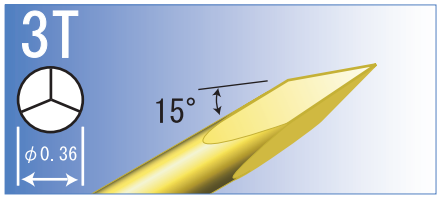
プローブ先端が検査物に接触すると同時に2/3ストロークにて先端部が回転する構造となっており、フラックス及び酸化皮膜を破壊するため、確実な接触が得られるよう設計されております。
This probe's advantage is that when the probe-Tip contacts with testing subjects at 2/3 stroke, the tip portion automatically turn around thus destructing insulation flux, then achieves perfect contact with the board.

CT-04-ピッチ(Center Pitch) 1.0mm-



先端形状<Tip Style>

＊CT-04ターンプローブ用ソケットは、15ページのC-04用ソケットをご使用下さい。
Receptacle for CT-04 turn-probe refer to C-04 on page 15.



バネ圧/Spring Force

ストローク
<Maximum traveling>
2mm

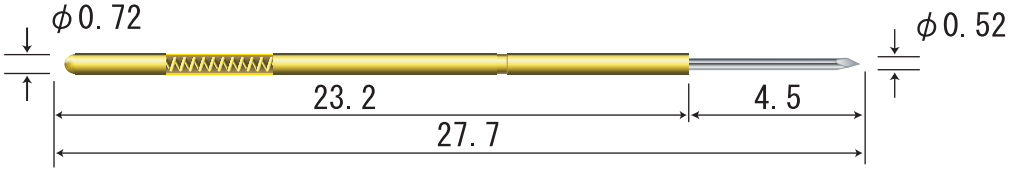
ばね圧
<Spring Force>
2/3ストローク Traveling →40g

材質・表面処理/Materials

プランジャー:SK材、Auめっき
スプリング:SWP、AUめっき
スリーブ:りん青銅、Niめっき

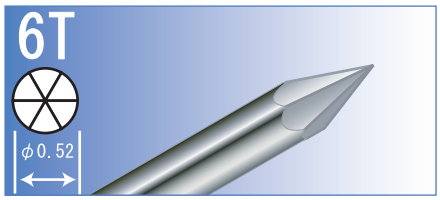
Plunger:Au Plated High Carbon steel
Spring:Gold Plated Music Wire
Barrel:Gold plated Phosphor Bronze

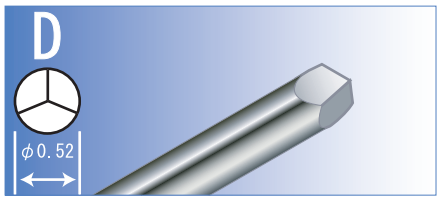
CT-0.72-ピッチ(Center Pitch) 1.27mm-



先端形状<Tip Style>

＊CT-0.72ターンプローブ用ソケットは、10ページのC-S1をご使用下さい。
Receptacle for CT-0.72 turn-probe refer to C-S1on page 10.





材質・表面処理/Materials

プランジャー:SK材、ロジウムめっき
スプリング:SWP、AUめっき
スリーブ:ニッケルシルバー、金めっき

Plunger:Rhodium Plated High Carbon steel
Barrel:Gold Plated Nickel Silver
Spring:Gold Plated Music Wire

バネ圧/Spring Force

ストローク
<Maximum traveling>
4.5mm

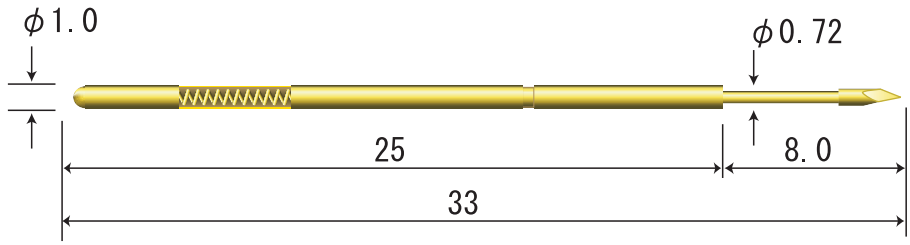
ばね圧
<Spring Force>
2/3ストローク Traveling →50g

注文方法/How to Order

シリーズ Series	先端形状 Tipstyle
CT-04 CT-0.72	- □

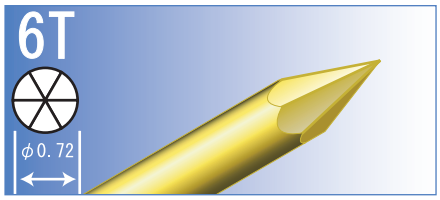
例 Example　CT-04-3T、C-0.72-6T

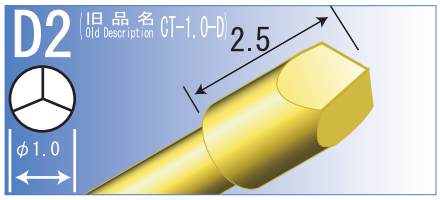
CT-1.0-ピッチ(Center Pitch) 2.0mm-



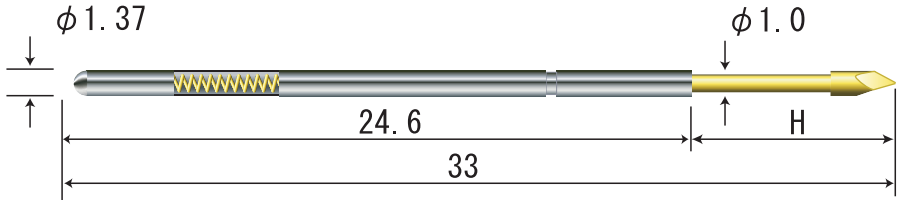
＊CT-1.0ターンプローブ用ソケットは、9ページのND075用ソケットをご使用下さい。
Receptacle for CT-1.0 turn-probe refer to ND075 on page 9.

先端形状<Tip Style>



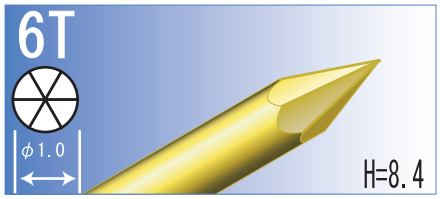


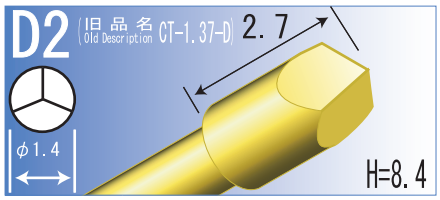
CT-1.37-ピッチ(Center Pitch) 2.54mm-

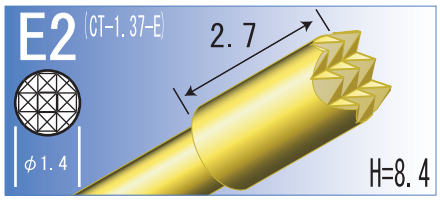


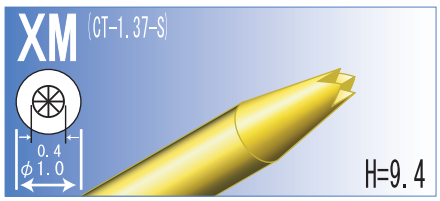
＊CT-1.37ターンプローブ用ソケットは、7ページのND100用、又は20ページのC-07ソケットをご使用下さい。
Receptacle for CT-1.37 turn-probe refer to ND100 on page 7 or C-07 on page 20.

先端形状<Tip Style>









材質・表面処理/Materials

プランジャー:SK材、Au又はロジウムめっき
スプリング:SWP、AUめっき
スリーブ:ニッケルシルバー又はニッケルシルバー金めっき

Plunger:Rhodium or Gold plated High Carbon steel
Barrel:Nickel Silver or Gold Plated Nickel Silver
Spring:Gold Plated Music Wire

バネ圧/Spring Force

ストローク
<Maximum traveling>
5.5mm

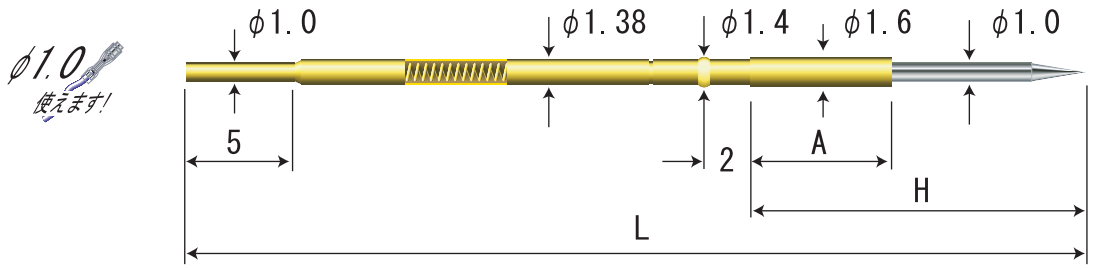
ばね圧
<Spring Force>
CT-1.0
140g@2/3ストローク Traveling

CT-1.37
100g@2/3ストローク Traveling
180g@2/3ストローク Traveling

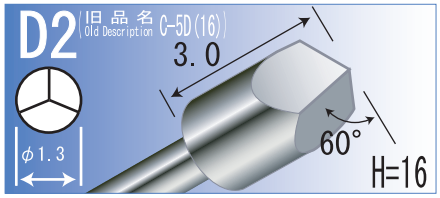
注文方法/How to Order

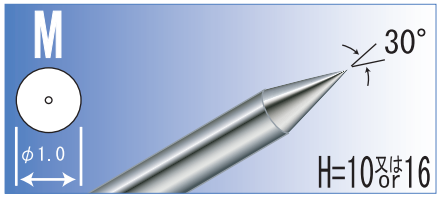
シリーズ Series	先端形状 Tipstyle	バネ圧 Spring Force
CT-1.0 CT-1.37	- [ ]	- [ ]

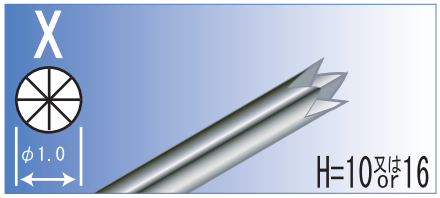
例 Example CT-1.0-5P、CT-1.37-6T-100g

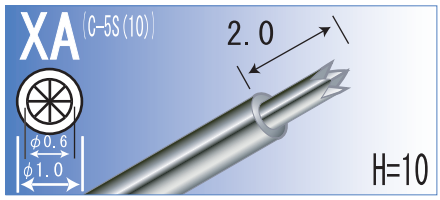


先端形状<Tip Style>



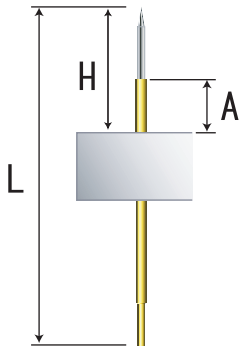






H 樹脂面からの高さ
Height from top plate of fixture

H:高さ Height	L:プローブ全長 Length of Probe	A:カラー Collar
10	41	0.5
16	41	6.5



材質・表面処理/Materials

プランジャー:SK材、ニッケル下地ロジウムめっき
スプリング:SWP、Auめっき
スリーブ:真鍮、Auめっき

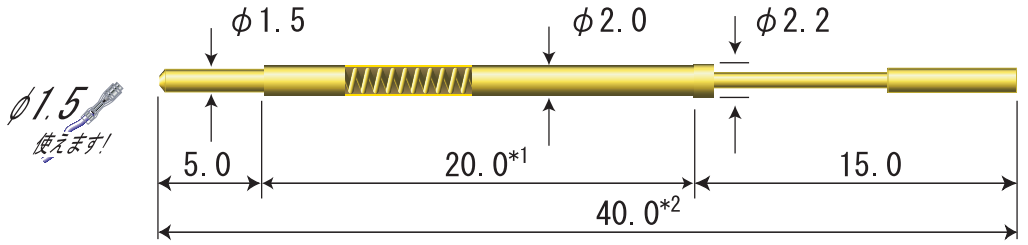
Plunger:Rhodium Plated over Nickel、High Carbon steel
Barrel:Gold Plated Phosphor Bronze
Spring:Gold Plated Music Wire

注文方法/How to Order

シリーズ Series	先端形状 Tipstyle	H高さ Height
C-5	□	( )

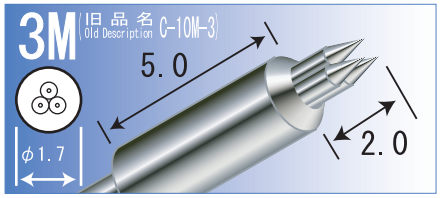
例 Example C-5M(16)、C-5X(16)

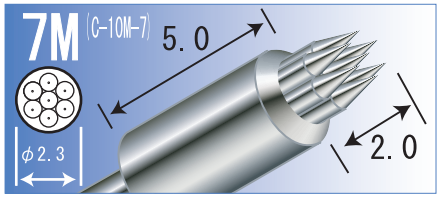
C-10 Series -ピッチ(Center Pitch) 2.54mm-

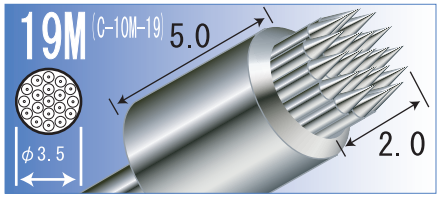


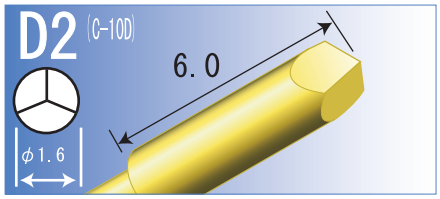
*1 C-10-M・・17.0
*2 C-10-M・・37.0

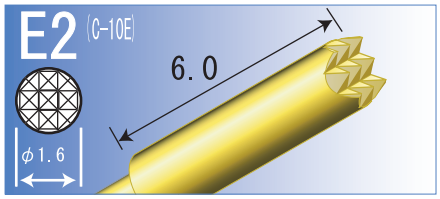
先端形状<Tip Style>

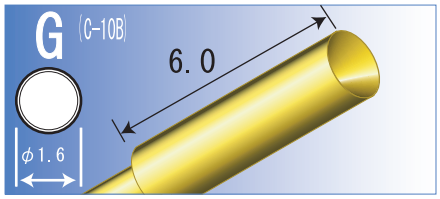


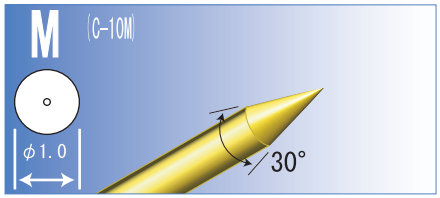


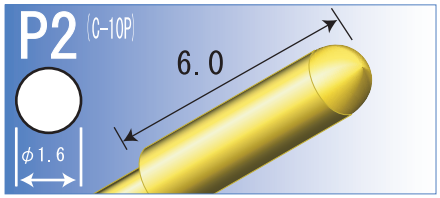


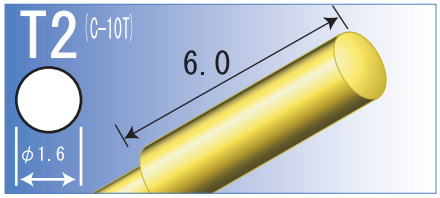


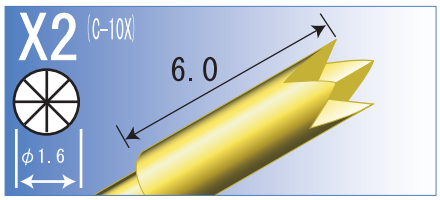












材質・表面処理/Materials

プランジャー:SK材、Ni又はNi下地Auめっき
スモールピン:SWPA、Niめっき
ヘッド(ｽﾓｰﾙﾋﾟﾝ):真鍮、Niめっき
スプリング:SWP又はSUS
スリーブ:真鍮、Ni下地Au又はNiめっき

Plunger:Nickel or Gold over Nickel plated High Carbon Steel
Needle:Ni plated Hard Steel wire
Head(For Needle):Ni plated Bs
Barrel:Nickel or Gold over Nickel plated B.S.T.
Spring:Music Wire or Stainless Steel

バネ圧/Spring Force

ストローク
Maximum traveling
7mm

ばね圧@2/3ストローク Traveling
170g

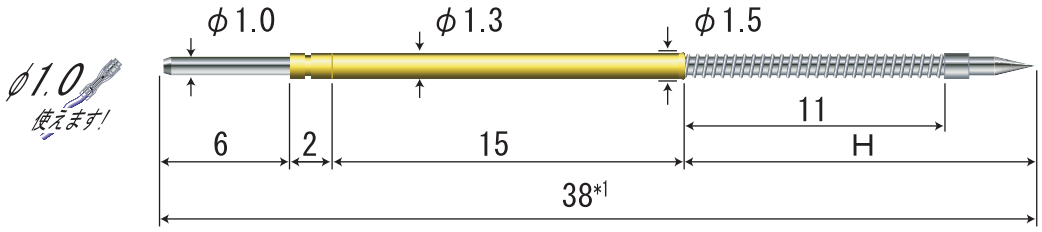
注文方法/How to Order

シリーズ Series　先端形状 Tipstyle

C-10 - [　　]

例 Example　C-10-D2、C-10-7M

ピッチ<Center Pitch> 2.00mm

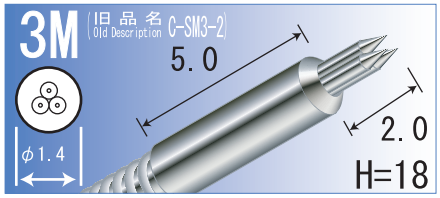


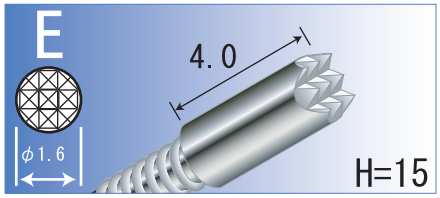
*1:C-3M-2は41mm

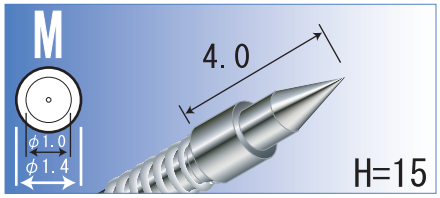
バネ圧/Spring Force

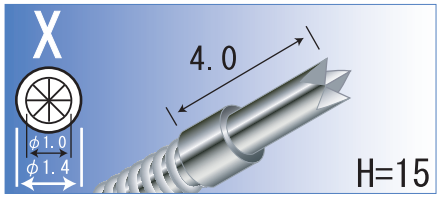
140g@4mm
180g@5.5mm

先端形状<Tip Style>



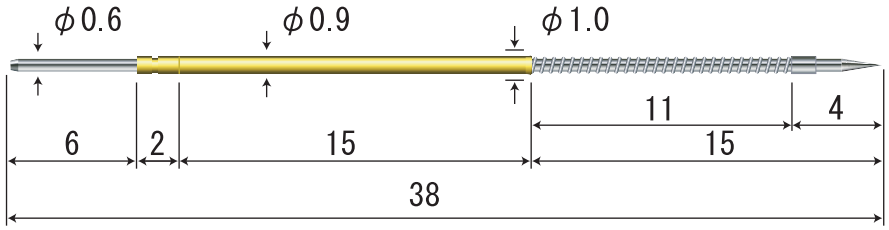






C-2ソケット<Receptacle>

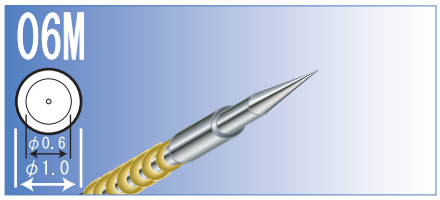
ピッチ<Center Pitch> 1.5mm



バネ圧/Spring Force

100g@4mm
130g@5.5mm

先端形状<Tip Style>



材質・表面処理/Materials

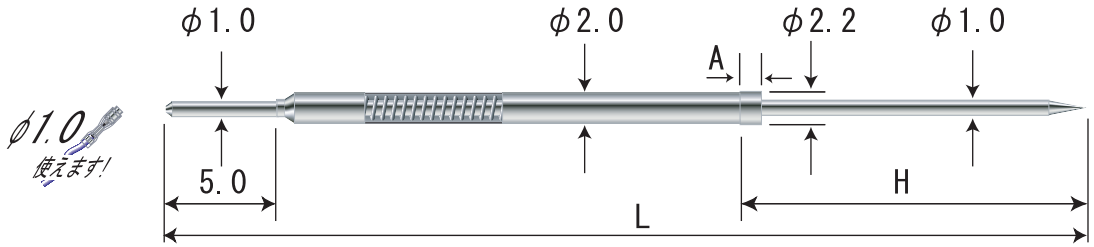
プランジャー :ピアノ線、Niめっき
スモールピン :SWPA、Niめっき
ヘ　ッ　ド :真鍮(ｽﾓｰﾙﾋﾟﾝ)・SK材、Niめっき
スプリング :SWP、Ni又はAuめっき
ス　リ　ー　ブ :真鍮、Ni下地Auめっき
ソ　ケ　ッ　ト :真鍮、Niめっき

Plunger :Ni plated SWP
Needle :Ni plated Hard steel wire
Head :Ni plated Bs(Needle),High carbon steel
Spring :Ni or Au plated Music wire
Sleeve :Au over Nickel plated Bs
Receptacle :Ni plated Bs

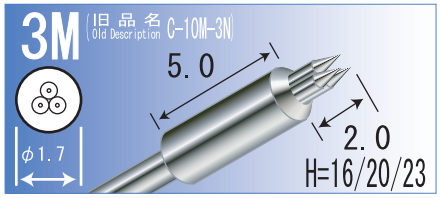
注文方法/How to Order

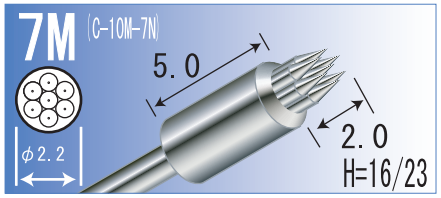
シリーズ Series	先端形状 Tipstyle	
C -	[ ]	- 2

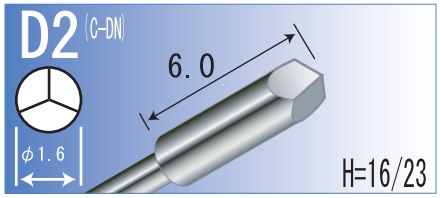
例 Example　C-3M-2、C-E-2、C-06M-2

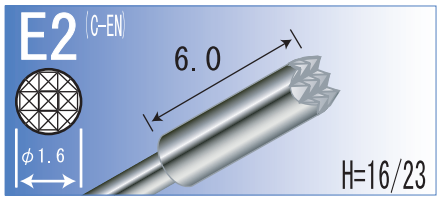


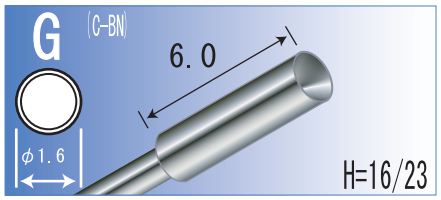
先端形状<Tip Style>

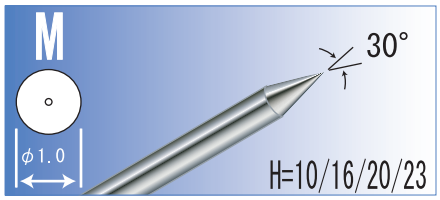


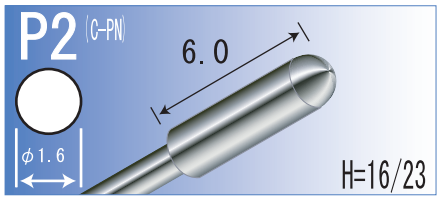


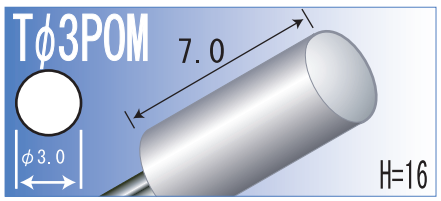


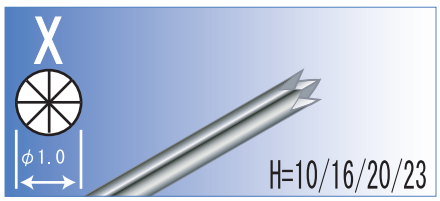






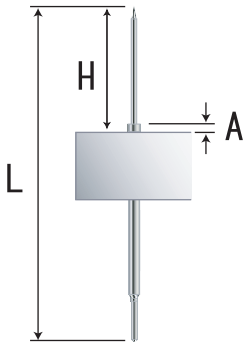






H 樹脂面からの高さ
Height from top plate of fixture

H:高さ Height	L:プローブ全長 Length of Probe	A:カラー Collar
10	37	1
16	43	1
20	47	4
23	50	4



材質・表面処理/Materials

プランジャー:硬鋼線、Niめっき
スモールピン:SWPA、Niめっき
ヘ　ッ　ド:真鍮(ｽﾓｰﾙﾋﾟﾝ)、Niめっき又はSK材、Niめっき又は・POM
スプリング:SWP又はSUS
スリーブ:ニッケルシルバー

Plunger:Ni plated Hard steel wire
Needle:Ni plated Hard steel wire
Head:Ni plated Bs(Needle)or High carbon steel or POM
Spring:Music wire or Stainless steel
Sleeve:Nickel silver

バネ圧/Spring Force

MN(16)
XN(16)
200g@4mm(swp)

その他(Others)
170g@4mm(sus)

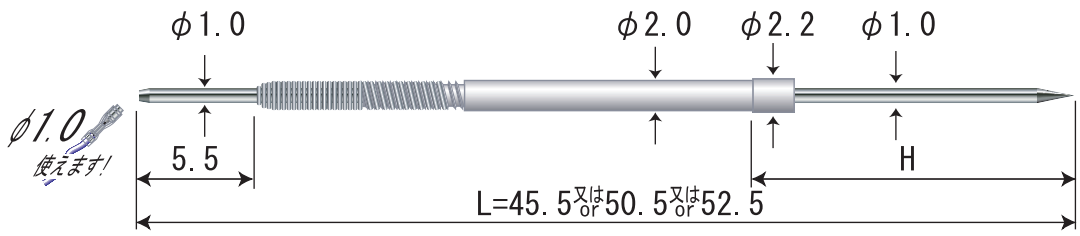
最大ストローク
Maximum travel
7.8mm

注文方法/How to Order

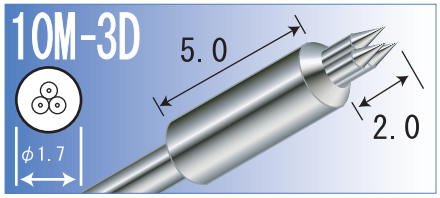
シリーズ Series	先端形状 Tipstyle	H高さ Height
C -		N ( )

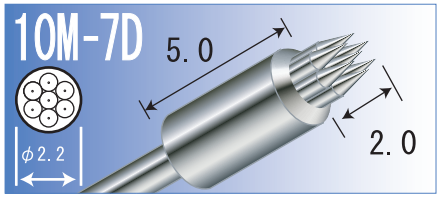
例 Example　C-3MN(16)、C-3MN(23)
C-XN(16)

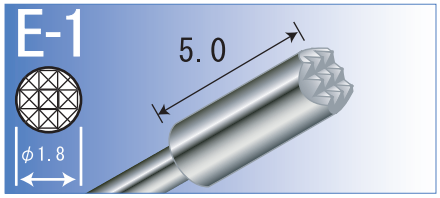
C-1 Series -ピッチ(Center Pitch) 2.54mm-

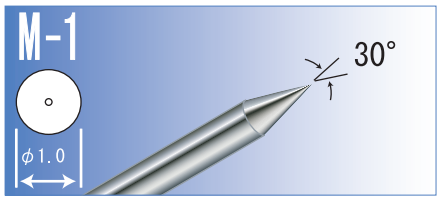


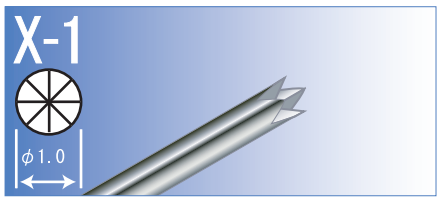
先端形状<Tip Style>





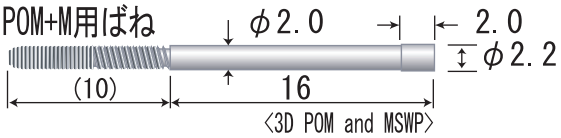






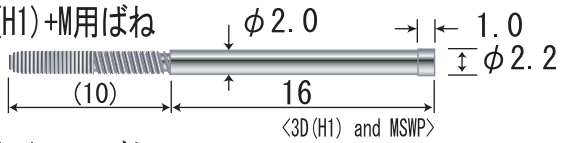
スリーブ&スプリング<Sleeve&Spring>

3D POM+M用ばね



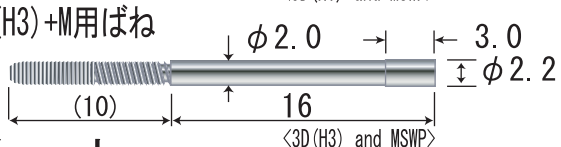
<3D POM and MSWP>

3D(H1)+M用ばね



<3D(H1) and MSWP>

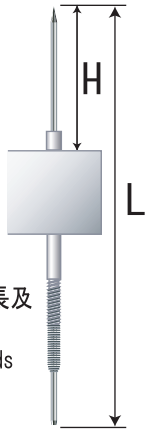
3D(H3)+M用ばね



<3D(H3) and MSWP>

H 樹脂面からの高さ
Height from top plate of fixture

Sleeve \ L	45.5	50.5	52.5
3D POM	16	21	23
3D(H1)	15	20	22
3D(H3)	17	22	24



樹脂面よりピン先端までの高さは、ピンの全長及びスリーブの組み合わせにより変更可能です。
The height from plate to top of plunger depends on combination of plunger length and sleeve.

ソケット<Receptacle>

C-10用<C-10 socket>

材質・表面処理/Materials

プランジャー：硬鋼線、Niめっき
スモールピン：SWPA、Niめっき
ヘッド：真鍮(スモールピン用)、Niめっき又はSK材、Niめっき
スプリング：SWP、Niめっき
スリーブ：真鍮、Niめっき又はPOM
ソケット：真鍮、Agめっき

Plunger：Ni plated Hard steel wire
Needle：Ni plated Hard steel wire
Head：Ni plated Bs(for Needle)・High carbon steel(for others)
Spring：Ni plated Music Wire
Sleeve：Ni plated Bs or POM
Receptacle：Silver plated Bs

バネ圧/Spring Force

140g@4mm
170g@6mm
200g@8mm

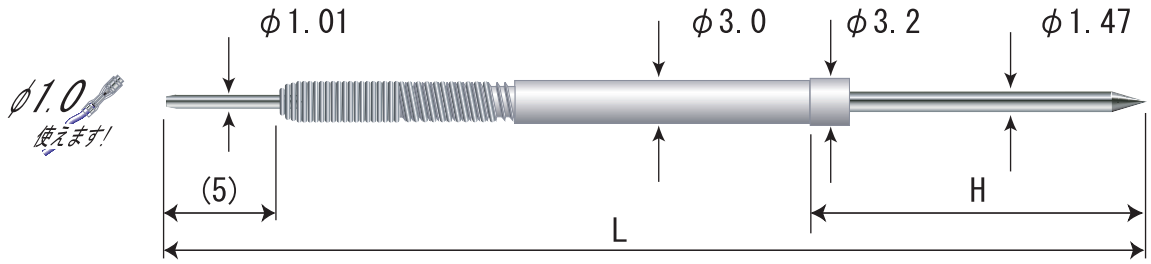
注文方法/How to Order

シリーズ Series　先端形状 Tipstyle　L 全長 Length of Plunger

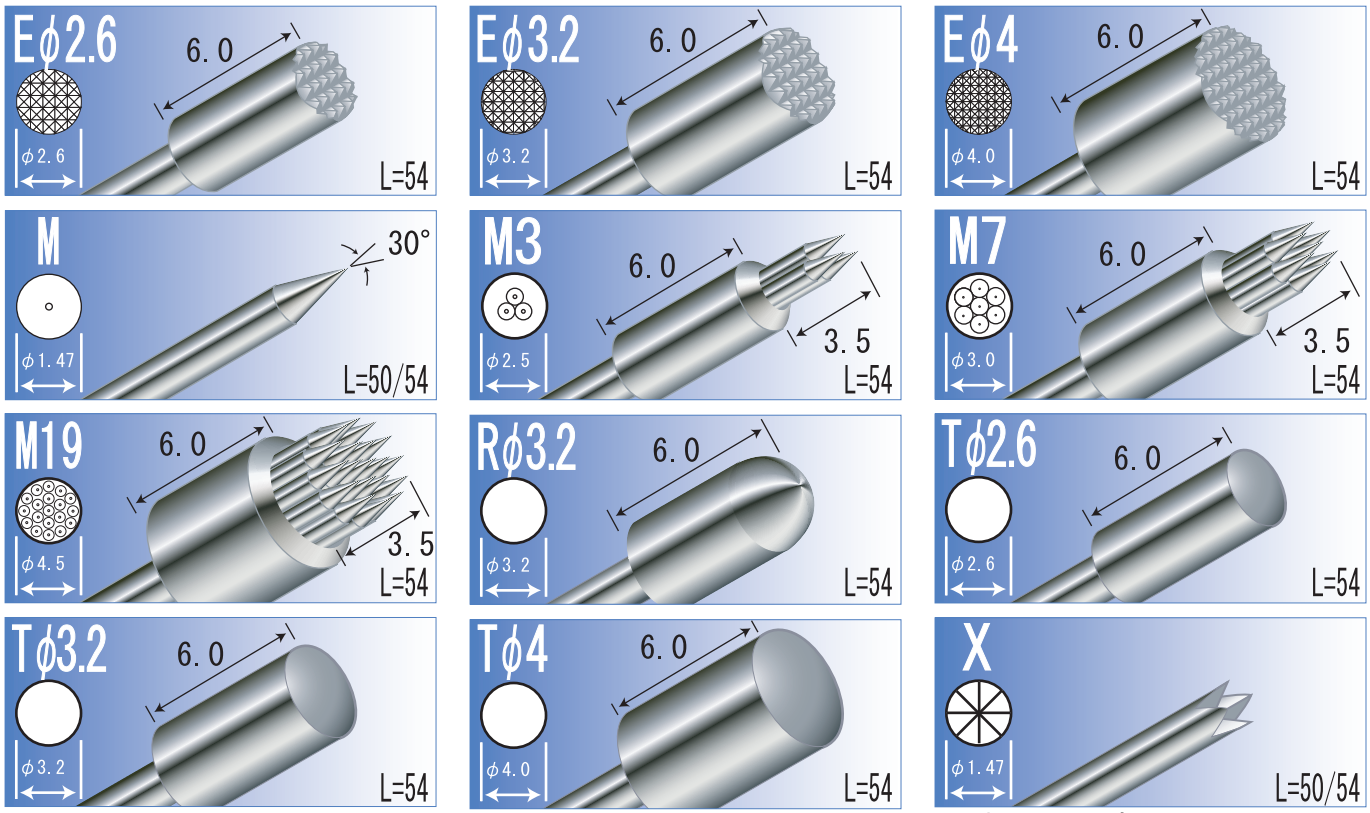
C - [　　] - L [　　]

例 Example　C-10M-3D-L45.5、C-X-1-L52.5

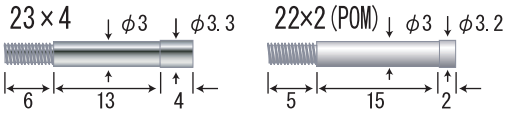
C-15 Series -ピッチ(Center Pitch) 4.0mm-



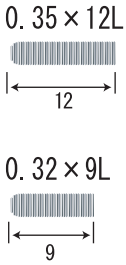
先端形状<Tip Style>



スリーブ<Sleeve>

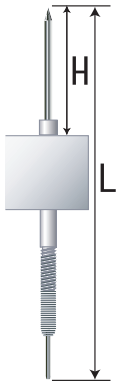


スプリング<Spring>



H 樹脂面からの高さ
Height from top plate of fixture

スリーブ&スプリング \ プランジャー全長	50	54
23×4/0.35×12L	18	22
23×4/0.32× 9L	21	25
22×2/0.35×12L	16	20
22×2/0.32× 9L	19	23



材質・表面処理/Materials

プランジャー :硬鋼線、Niめっき
スモールピン :SWPA、Niめっき
ヘ ッ ド :真鍮(スモールピン用)、Niめっき又はSK材、Niめっき
スプリング :SWP、Niめっき又はSUS
スリーブ :真鍮、Niめっき又はPOM

Plunger :Ni plated Hard steel wire
Needle :Ni plated Hard steel wire
Head :Ni plated Bs(Needle)or High carbon steel
Spring :Ni plated Music Wire or stainless steel
Sleeve :Ni plated Bs or POM

バネ圧/Spring Force

0.35×12L
270g@6mm

0.32×9L
230g@6mm

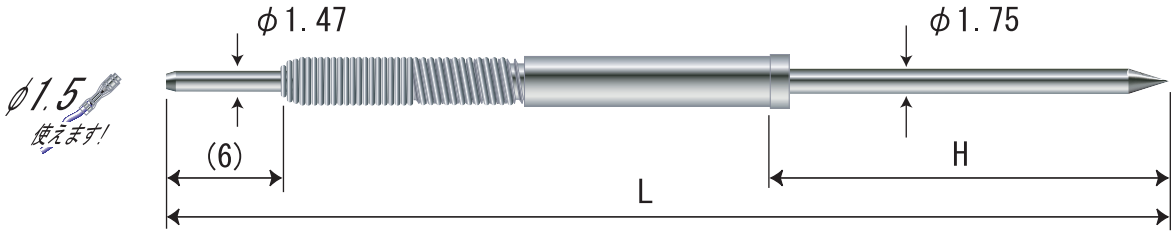
(g@Travel)

注文方法/How to Order

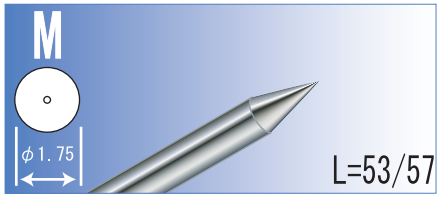
シリーズ Series / 先端形状 Tipstyle / L プランジャー全長 Length of Plunger

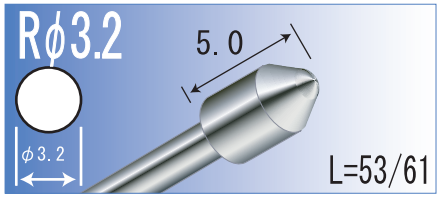
C-15 [ ] -L [ ]

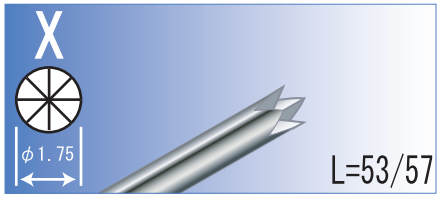
例 Example C-15E2.6-L54、C-15X-L54



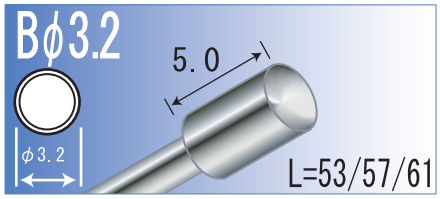
C-17 先端形状<Tip Style>

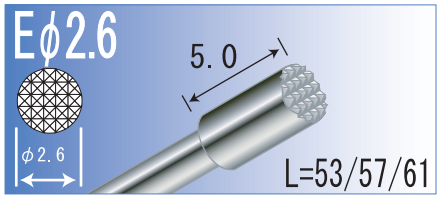


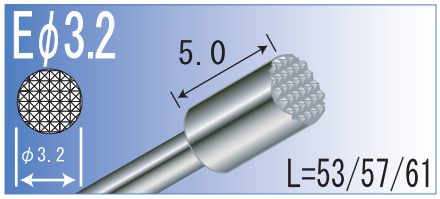


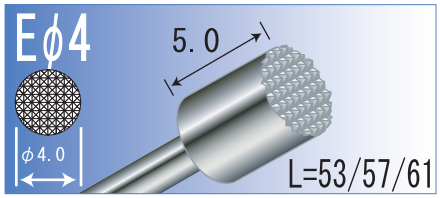


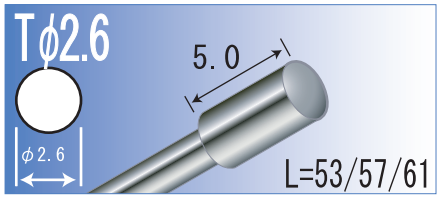
C-20 先端形状<Tip Style>

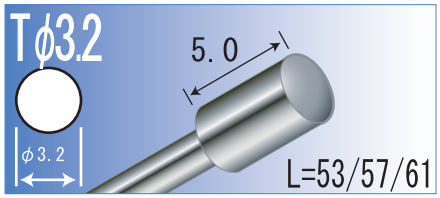


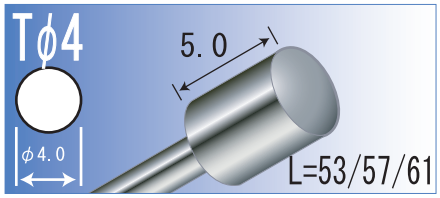


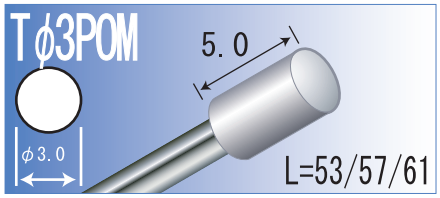


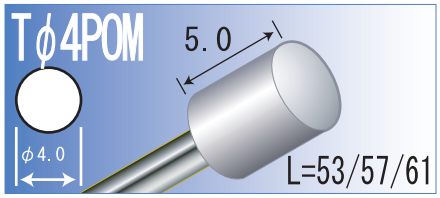




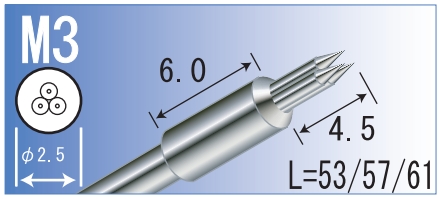


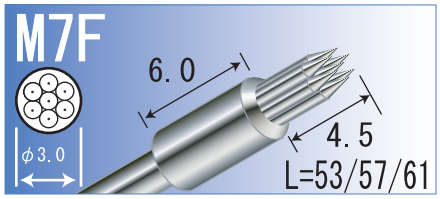


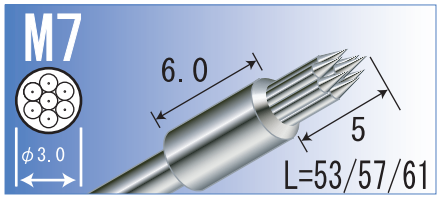


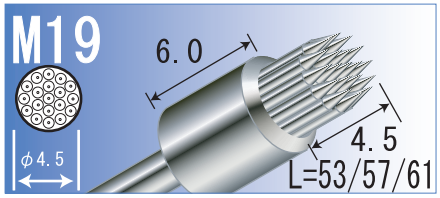


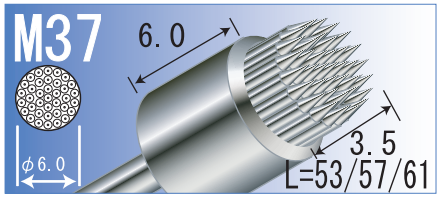
C-22 先端形状<Tip Style>





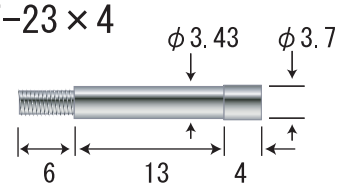




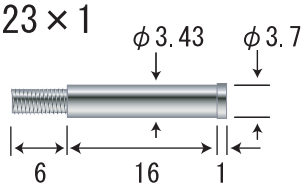


スリーブ<Sleeve>

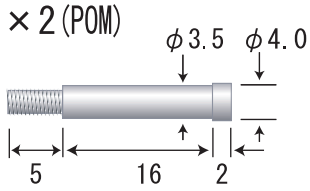
17-23×4



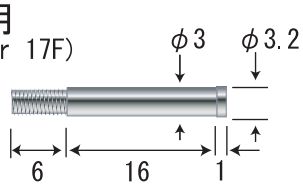
17-23×1



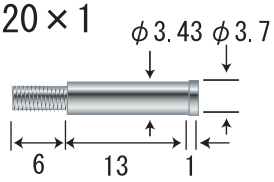
17-23×2(POM)



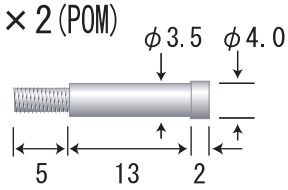
F用 (For 17F)



17-20×1



17-20×2(POM)



スプリング<Spring>

バネ圧 Spring force / ストローク Traveling \ Spring	#212	#213	#510	#512	#513	#811	#813	#410	#413
	12	13	10	12	13	11	13	10	13
	線径φ0.32	φ0.32	φ0.35	φ0.35	φ0.35	φ0.38	φ0.38	φ0.4	φ0.4
Spring force@4mm	80g	70g	170g	120g	110g	190g	170g	240g	210g
Spring force@6mm	110g	100g	230g	170g	140g	270g	230g	340g	280g
Spring force@8mm	140g	120g	290g	220g	180g	350g	300g	440g	350g

H 樹脂面からの高さ
Height from top plate of fixture

プローブL53と各種スリーブ、スプリングとの組み合わせによる樹脂面よりピン先端までの寸法(mm)
This table shows the height of which plunger length is 53mm. Please add or subtract the difference for other plunger length.

Sleeve \ Spring	#212	#213	#510	#512	#513	#811	#813	#410	#413
17-23×4	20mm	19	22	20	19	22	20	22	20
F用(for 17F)	17	16	19	17	16	19	17	19	17
17-23×1	17	16	19	17	16	19	17	19	17
17-20×1	20	19	22	20	19	22	20	22	20
17-23×2(POM)	17	16	19	17	16	19	17	19	17
17-20×2(POM)	20	19	22	20	19	22	20	22	20

樹脂面から、プランジャー先端までの高さは、プランジャー・スリーブ・スプリングの組み合わせで決まります。
The height from plate to top of plunger depends on combination of plunger length,sleeve and spring.

材質・表面処理/Materials

プランジャー:硬鋼線、Niめっき
スモールピン:SWPA、Niめっき
ヘ　ッ　ド:真鍮(ｽﾓｰﾙﾋﾟﾝ用)、Niめっき又はSK材、Niめっき又はPOM
スプリング:SUS304
スリーブ:真鍮、Niめっき又はPOM

Plunger:Ni plated Hard steel wire
Needle:Ni plated Hard steel wire
Head:Ni plated Bs(Needle) or High carbon steel,POM
Spring:Stainless steel
Sleeve:Ni plated Bs or POM

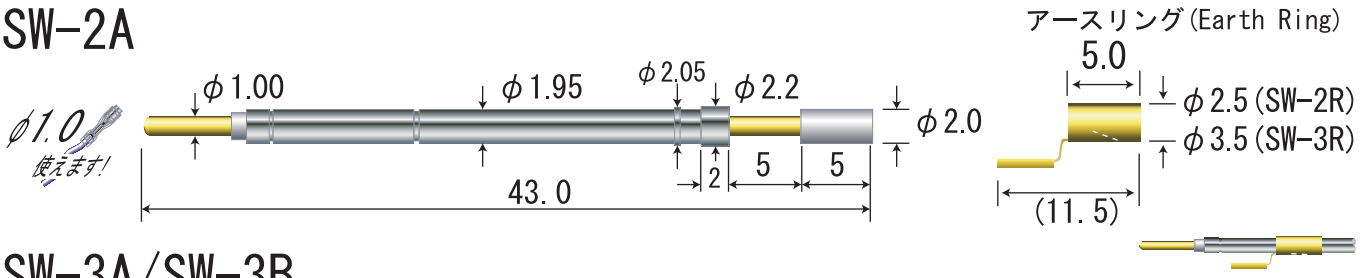
注文方法/How to Order

シリーズ Series	先端形状 Tipstyle	L プランジャー全長 Length of Plunger
C-17 C-20 C-22		-L

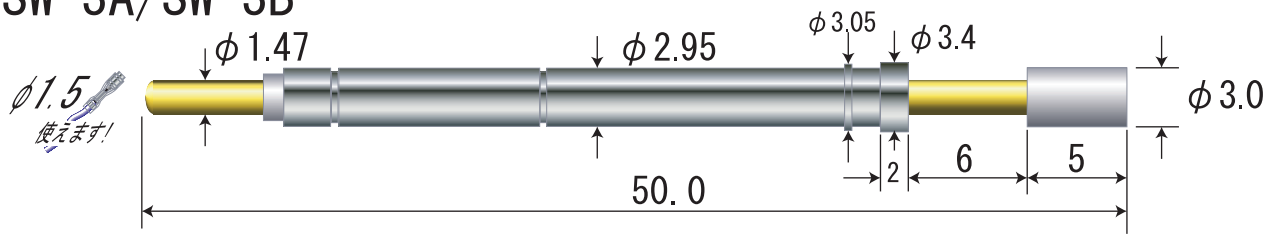
例 Example　C-17M-L53、C-20Eφ2.6-L57
C-22M3-L53

スイッチピン -Switching Probes-

SW-2A



SW-3A/SW-3B



特徴

1. スイッチ機構を組み込んでおり、所定の接点ストロークでＯＮとＯＦＦするプローブピンです。
   Ａ接点タイプ：０．７ｍｍストロークでＯＮ
   Ｂ接点タイプ：０．７ｍｍストロークでＯＦＦ
2. プローブピン自体がＯＮ/ＯＦＦするため、無信号の場所から信号が取れます。
3. 基板実装時におけるインサーターでの未実装部品の発見ができます。
4. ヘッド部の樹脂(ＰＯＭ)採用により、部品が破損する恐れを軽減しています。
5. 圧着端子付きリード線及び本体用のアースリングを使用する事で、プローブ本体を損傷する事なく簡単に配線ができます。

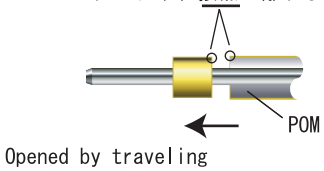
Features.

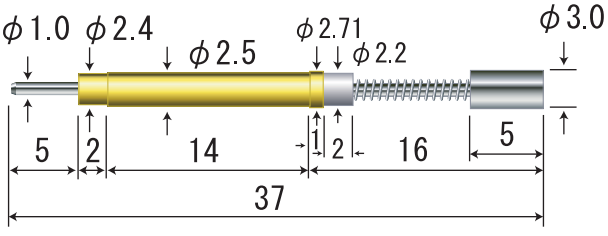
1. Probe which has switching function installed.
   A type: "Switch ON" with 0.7mm contact stroke.
   B type: "Switch OFF" with 0.7mm contact stroke.
2. Due to probe itself switches to ON/OFF, the signal can be relayed from non-signal place.
3. Probe can be used for testing of assembled PCB.
   Ex. leaked chips etc.
4. Because of resin head, it can prevent parts to parts destruction with direct contact.
5. Since use clip terminal with lead wire and earth-ring, probe is attached lead wire easily without any damages to probe.

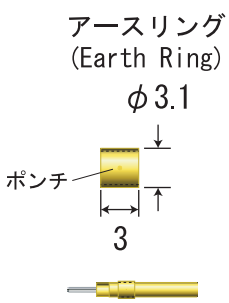
品　名	最大ストローク Maximum Travel	推奨ストローク Working Travel	接点ストローク A point of Contact Stroke	許容電流 Current Rating	荷重@1.5mm Spring Force	表面処理 Plating
SW－２A	4.0	1.5~2.0mm	0.7±0.2mm	３A	50g	Au
SW－３A	5.0	1.5~2.0mm	0.7±0.2mm	３A	50g	Au
SW－３B	4.0	1.0~1.5mm	0.7±0.2mm	３A	50g	Ni

OFFピン3φ-T-37L(Switch OFF)

ストロークにより、接点が離れます。



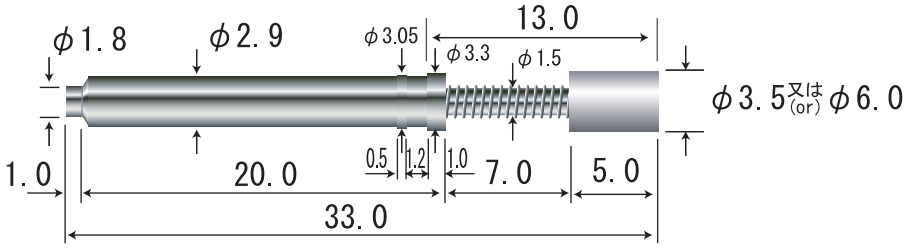




材質・表面処理
プランジャー：ＳＫ材、Ｎｉめっき
スプリング：ＳＵＳ
スリーブ：内側 POM、外側 Bs(Au)
後部接点 Bs(Au)
アースリング：Bs(Au)

Materials
Plunger : Nickel plated high carbon steel
Spring : Stainless steel
Barrel : Inside POM、Outside Au Plated B.S.T.
Backside Au Plated B.S.T.
Earth ring : Outside Au Plated B.S.T.

押上ピン -Forcing Pin-



材質・表面処理/Materials

ヘ　ッ　ド：POM	Head：POM
プランジャー：SUS	Plunger：Stainless steel
スプリング：SUS	Spring：Stainless steel
ス　リ　ー　ブ：真鍮、Niめっき	Barrel：Ni Plated B.S.T.

バネ圧/Spring Force

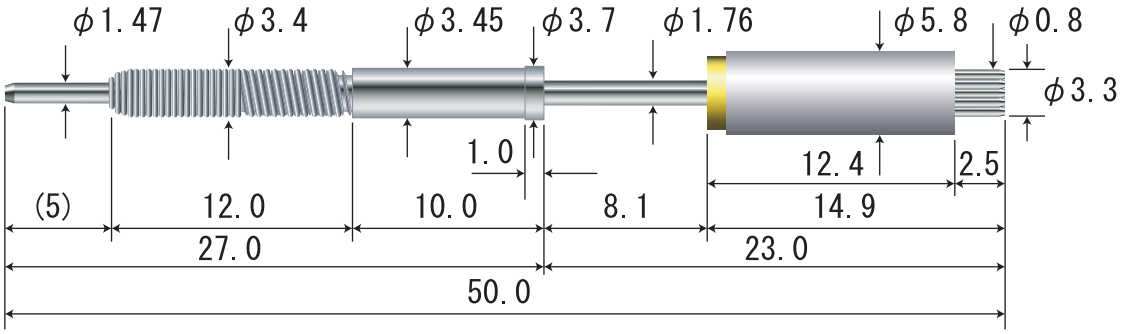
300g@4mm

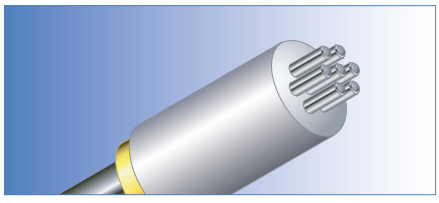
注文方法/How to Order

ヘッド径(Diameterof Head)

φ3.5：押上ピンφ3.5 H13(Forcing Pinφ3.5 H13)
φ6.0：押上ピンφ6.0 H13(Forcing Pinφ6.0 H13)

コンデンサ逆付けチェックピン -Check Pin for Condenser-



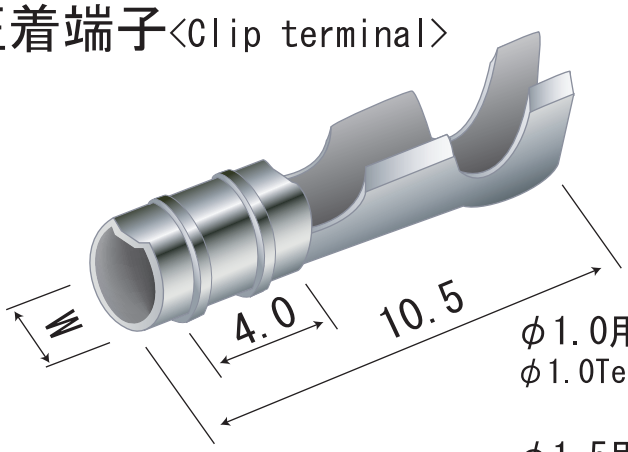


先端7針が1.7mmストロークの時160g
<160g@1.7mm 7Needles traveled>

材質・表面処理/Materials

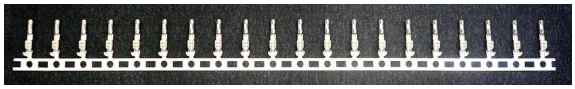
プランジャー：SK材、Niめっき	Plunger：Nickel Plated High Carbon steel
スプリング：SUS304	Spring：Stainless steel
ス　リ　ー　ブ：真鍮Ni下地Auめっき又はNiめっき	Barrel：Gold over Nickel or Nickel Plated B.S.T.
ホ　ル　ダ　ー：POM	Holder：POM

圧着端子<Clip terminal>

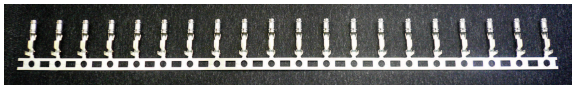


	W
1φ用端子	1.7
1.5φ用端子	2.2

φ1.0用端子
φ1.0Terminal

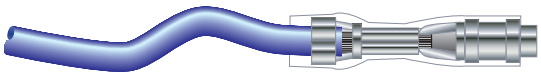


φ1.5用端子
φ1.5Terminal



リード線付き端子<Clip terminal preattached with wire>

φ1.0用ﾘｰﾄﾞ線付き端子



リード線<Lead Wire>
φ0.12×10
L=400/600/800
被服の色<Color>

黒 Black　茶 Brown　赤 Red　橙 Orange　黄 Yellow
緑 Green　青 Blue　紫 Purple　灰 Gray　白 White

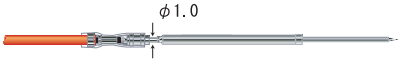
ND075、C-06Ⅱシリーズ(ソケット品名=C-075S2 H7.6) Page 9、19

ND100、C-07、C-LHシリーズ(ソケット品名=C-1.37Q-S-1A) Page 7、20、22

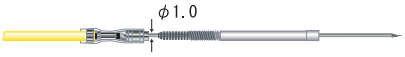
C-5シリーズ全種 Page 28

C-2シリーズ(2.0mmピッチ) Page 30

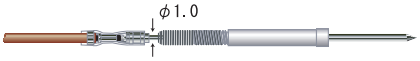
C-Nシリーズ全種 Page 31



C-1シリーズ全種 Page 32

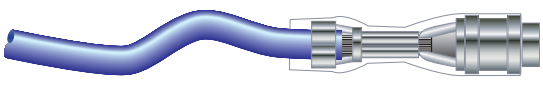


C-15シリーズ全種 Page 33



スイッチピン<Switching Probe> Page 36

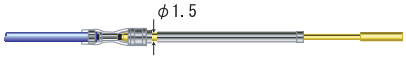
φ1.5用ﾘｰﾄﾞ線付き端子



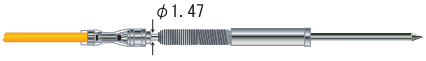
リード線<Lead Wire>
φ0.12×10
L=500
被服の色<Color>

黒 Black　茶 Brown　赤 Red　橙 Orange　黄 Yellow
緑 Green　青 Blue　紫 Purple　灰 Gray　白 White

C-10シリーズ全種 Page 29



C-17～22シリーズ全種 Page 34～35

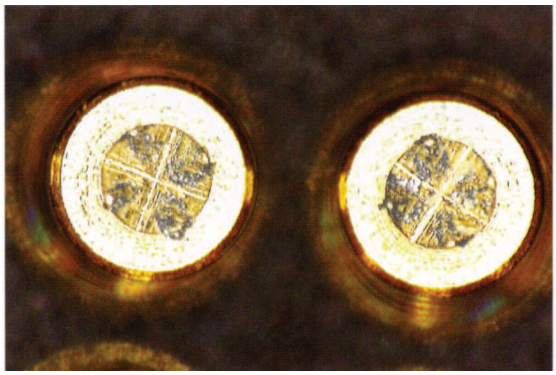


ナノテクブラン -Nanotek Brush-

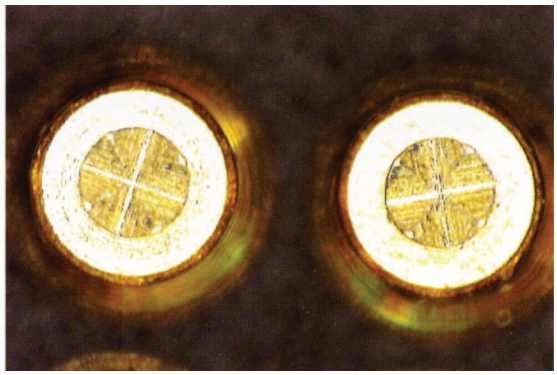
プローブピンの清掃に
For cleaning of contact probes.

ナノブラシは、直径0.05mmのSUS線を約4,000本束ねた精密ブラシです。プローブピンに付着した半田くずを効果的に取り除くことが可能です。微細なブラシにより、クラウン形状のヘッド内のクリーニングも可能です。また、ピンを取り出すことなくクリーニング可能なので、短時間で作業が終了します。

Nanotek Brush is consists of 4,000pieces stainless steel wires whose diameter is 0.05mm. Stuck solders can be removed by this brush. As fine pitch wire, this brush can remove solder even in crown tip. And the cleaning work will end in a short time because you can use this brush without taking out probes from board or socket.



▲半田付着時
Stuck solder

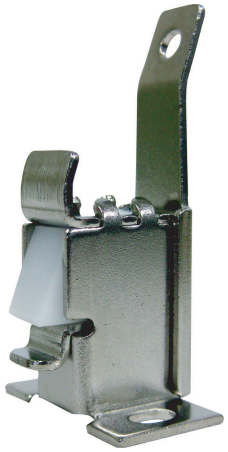


▲ナノテクブラシ使用後
After using Nanotek Brush

注 :半田と共にメッキを剥がす恐れがあるので、適度な力でブラッシングをする必要があります。
Note :Because plating might be peeled off with solder, it is necessary to brush moderately.

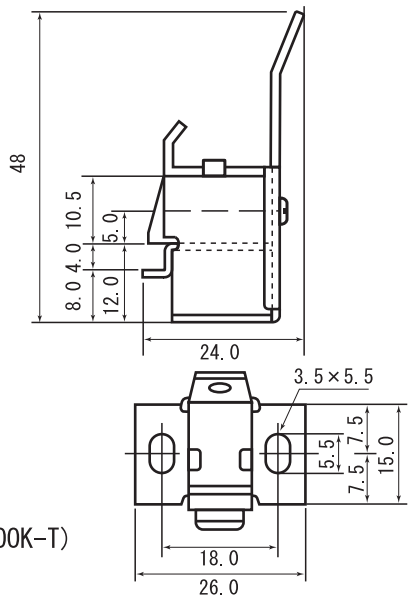
基板治具用フック -Hook-

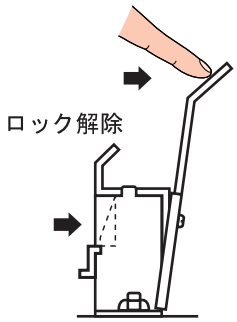
基板治具用フック<Hook>



基板治具用フック(HOOK)

フックストレート(HOOK-T)

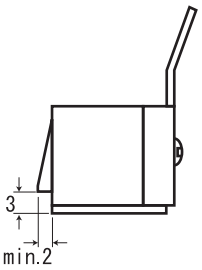


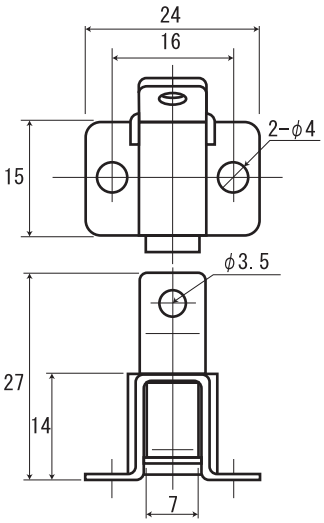


経済的で作業性がスムース

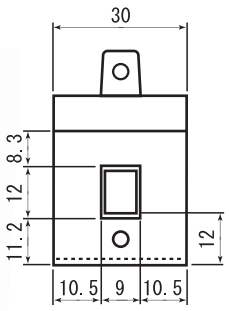
このフックを使うチェッカーでは、検査基板を上方から押込むだけでロックされ、余分な動作を必要としませんので非常に作業性がよく、しかも、実験上故障率・事故率が極めて低く、量産ラインで使用しても大きなメリットがあります。

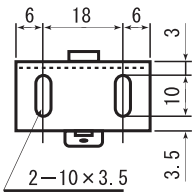
ミニフック(HOOK-M)

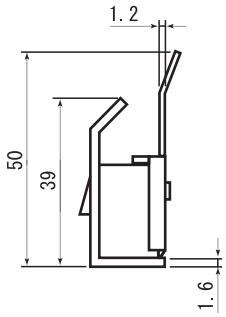




ガイドフック(HOOK-G)

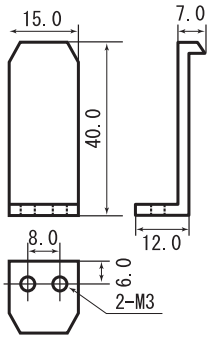


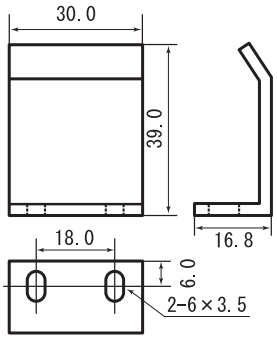


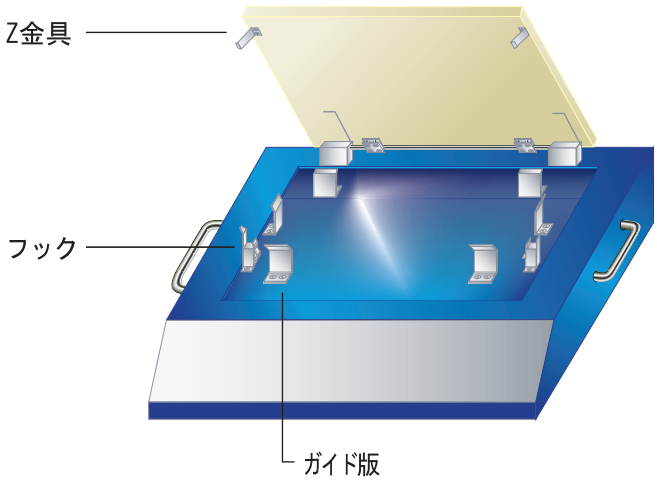


ガイド板付きで過重負担にも対応できる高耐力型フックです。直角方向に充分な耐久性がありますので基板作業は勿論それ以外にもご使用いただけます。

Z金具・ガイド板・蝶番

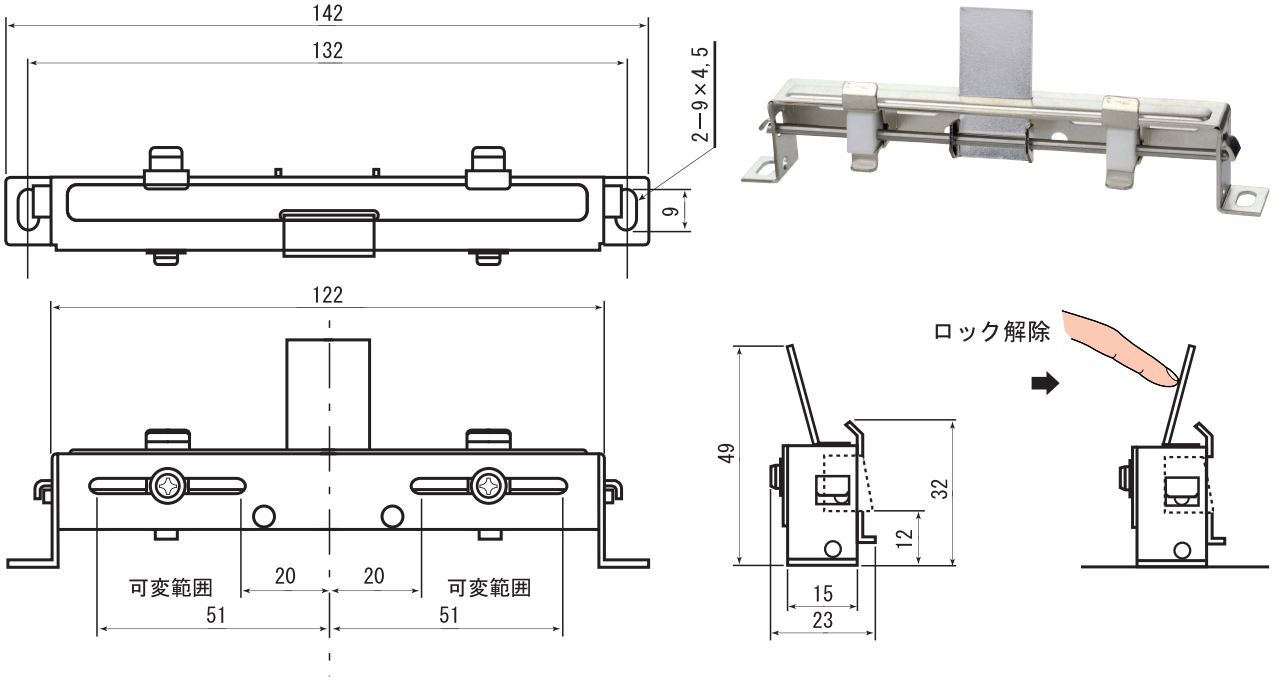




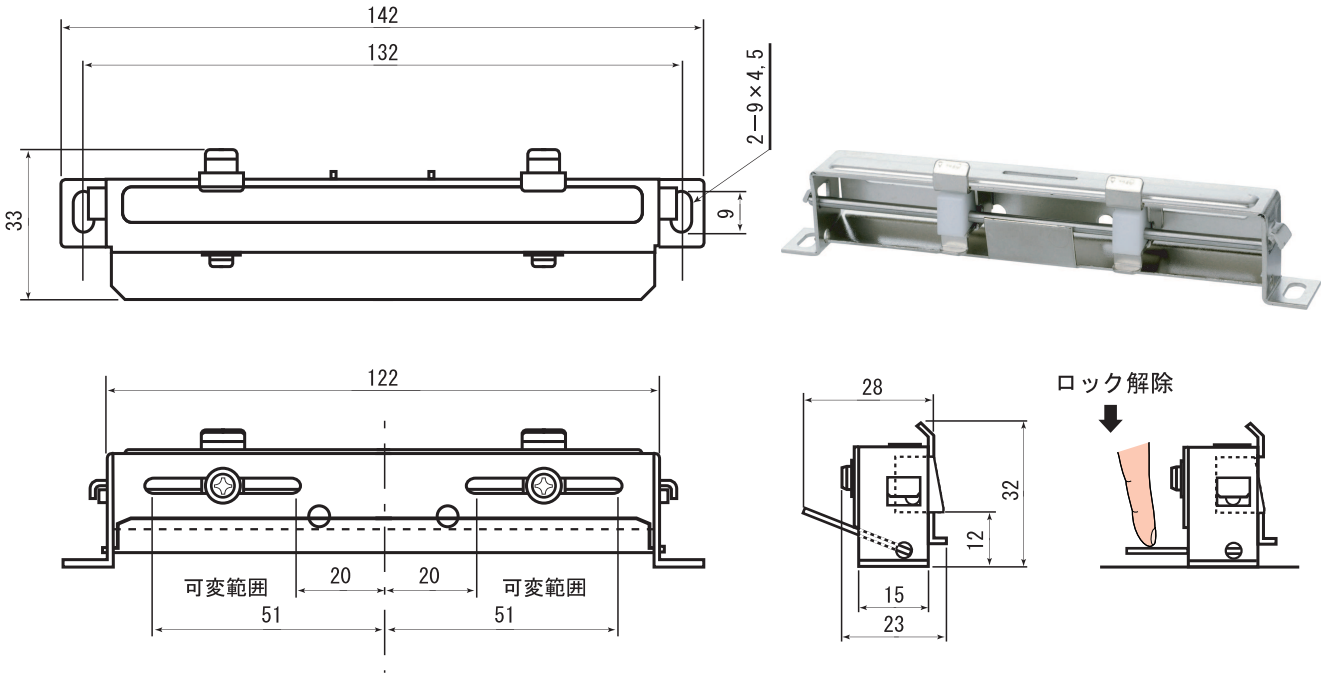


ツインフック-Twin Hook-

ツインフックA<Twin hook A>



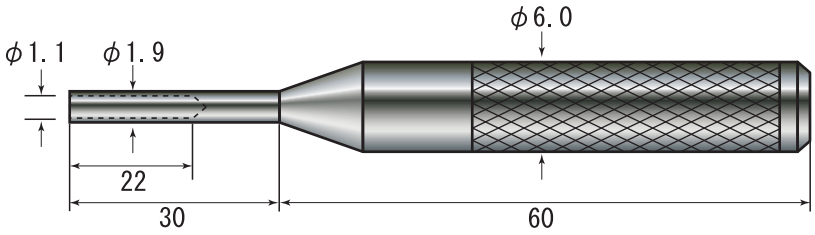
ツインフックB<Twin hook B>



基板フックは大抵の場合2個ペアで又はその倍数で使用されます。
面倒な位置決めや加工の手数を省くため2個のペアに相当する新機構「ツィンフック」を製品化しました。
ロック幅は50～110㎜に可変出来ます。小基板から150㎜位までの中型基板に適応します。
基板の長手方向左右にガイド板の代りに前項の当社製ガイドフックを配置することにより200㎜基板にも対応できます。
平レバー型と立レバー型の2機種を用意しました。
平レバー型は多用途向き標準品です。立レバー型は2台向い合せに取付ける事を想定して片手ワンタッチ操作で4カ処のロックを同時に解除出来ます。
小型チェッカーを想定した作業能率重視の仕様となっています。

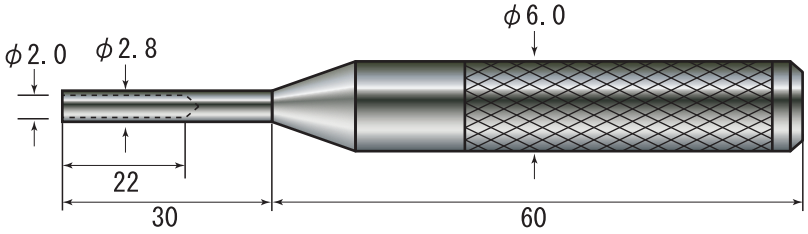
●NO.1

先端外径１φ以下に使用
For plunger O.D. less than 1.0mm



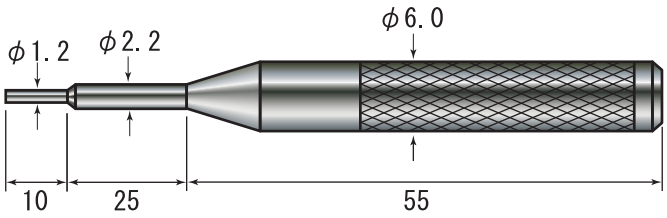
●NO.2

先端外径2φ以下に使用
For plunger O.D. less than 2.0mm



●NO.3

26ページC-5シリーズの抜き工具
Extraction tool for C-5 series.(see page 28.)



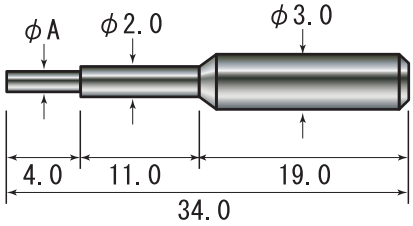
●NO.4

ソケット打込工具
RECEPTACLES INSERTION TOOL

ホルダーに打込ピンを差込み、ネジで固定してご使用下さい。打込ピンは、C-0.31用～1.37用までの8種類ございます。

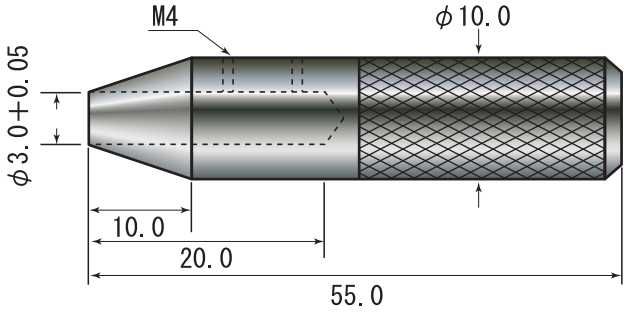
Insert a insertion pin inside holder and fixed by screw.
8 kind of insertion pins are available for C-0.31 series～ C-1.37 series.

打込ピン
INSERTION PIN



材質:SK(Ni)

ホルダー
HOLDER



材質:SK(Ni)

	A	B	C	D	E	F	G	H
For	0.31用	0.38用	0.48用	0.58用	0.68用	0.72用	1.0用	1.37用
φA	0.27	0.34	0.44	0.54	0.64	0.68	1.0	1.37

製造・販売

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