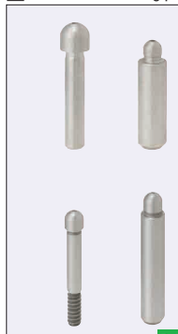
# Locating Pins for Height Adjusting

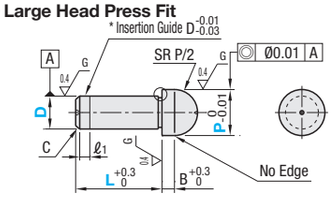
**Features:** Locating pins for printed circuit boards. B dimension is fixed short for thin boards. Reasonably priced.



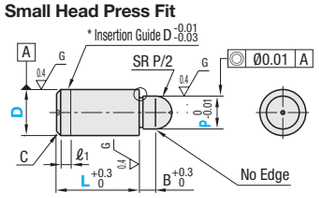
RoHS 10

| Material No. | Material | Surface Treatment | Hardness | Large Head Press Fit | Large Head Threaded | Small Head Press Fit | Small Head Tapped |
|---|---|---|---|---|---|---|---|
| ① | EN 1.4301 Equiv. | - | - | SFPLA (m6) SFPLP (p6) | SFPLN | SFPMA (m6) SFPMP (p6) | SFPMT |
| ② | EN 1.4037 Equiv. | - | Treated Hardness: 50 ~ 55HRC | CFPLA (m6) CFPLP (p6) | CFPLN | CFPMA (m6) CFPMP (p6) | - |

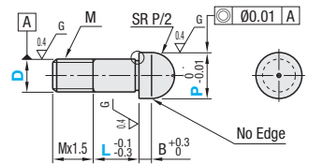
**• Large Head Press Fit**



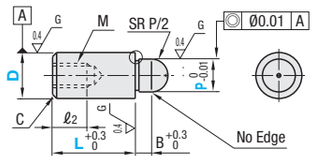

**• Small Head Press Fit**

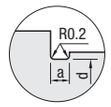



**• Large Head Threaded**




**• Small Head Tapped**




When D(P)≥3
a=1.0
d=D(P)-0.2
When D(P)<3
a=0.5
d=D(P)-0.1
Relief dimension is a reference value.

* The insertion guide is applicable to tolerance m6 and p6 type only.
When the P dimension is small, a centering hole will cause the sphere section to become small.
EN 1.4301 Equiv. may not be polished and may have no centering hole.
The spherical head may be polished.

## Large Head Press Fit

| Part Number Type | D | D dim. Tolerance m6 | D dim. Tolerance p6 | P 0.01mm Increment | L 1mm Increment | B | C | ℓ1 | Unit Price ①EN 1.4301 Equiv. SFPLA SFPLP | Unit Price ②EN 1.4037 Equiv. CFPLA CFPLP |
|---|---|---|---|---|---|---|---|---|---|---|
| SFPLA (m6) SFPLP (p6) | 1 | +0.008 +0.002 | +0.012 +0.006 | 1.50~2.00 | 2~10 | 1 | 0.1 | 0 | | |
| CFPLA (m6) CFPLP (p6) | 2 | | | 2.50~4.00 | 2~15 | | 0.2 | | | |
| | 3 | | | 3.50~6.00 | 3~15 | 2 | | 1 | | |

## Large Head Threaded

| Part Number Type | D | D dim. Tolerance g6 | P 0.01mm Increment | L 1mm Increment | B | M (Coarse) | *Tightening Torque N·cm | Unit Price ①EN 1.4301 Equiv. SFPLN | Unit Price ②EN 1.4037 Equiv. CFPLN |
|---|---|---|---|---|---|---|---|---|---|
| SFPLN | 2 | -0.002 -0.008 | 2.50~4.00 | 2~12 | 1 | M2 | - | | |
| CFPLN | 3 | | 3.50~6.00 | | 2 | M3 | 98 | | |

## Small Head Press Fit

| Part Number Type | D | D dim. Tolerance m6 | D dim. Tolerance p6 | P 0.01mm Increment | L 1mm Increment | B | C | ℓ1 | Unit Price ①EN 1.4301 Equiv. SFPMA SFPMP | Unit Price ②EN 1.4037 Equiv. CFPMA CFPMP |
|---|---|---|---|---|---|---|---|---|---|---|
| SFPMA (m6) SFPMP (p6) CFPMA (m6) CFPMP (p6) | 2 | +0.008 +0.002 | +0.012 +0.006 | 1.00~1.95 | 2~15 | 1 | 0.3 | 0 | | |
| | 3 | | | 1.50~2.95 | 3~15 | | 0.5 | 1 | | |
| | 4 | +0.012 +0.004 | +0.020 +0.012 | 2.50~4.00 | 3~20 | 2 | 1 | | | |
| | 5 | | | | | | | | | |
| | 6 | | | | | | | | | |

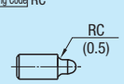
## Small Head Tapped

| Part Number Type | D | D dim. Tolerance g6 | P 0.01mm Increment | L 1mm Increment | B | C | M (Coarse) | *Tightening Torque N·cm | ℓ2 | Unit Price ①EN 1.4301 Equiv. SFPMT |
|---|---|---|---|---|---|---|---|---|---|---|
| SFPMT | 5 | -0.004 -0.012 | 2.50~4.00 | 10~20 | 2 | 0.5 | M2 | - | 3 | |
| | 6 | | | | | | M3 | 98 | 5 | |

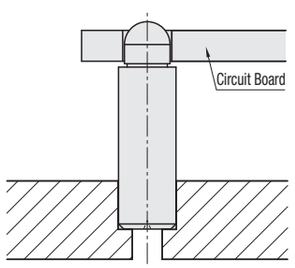
* The tightening torque (ref. value) for hardened products is strength class 8.8. (See technical data on P. 2297.) Not applicable when using locking materials or lock washers.

Ordering Example: Part Number [Type] [D] - [P] - [L]
SFPLN 2 - P2.90 - L8
CFPMA 6 - P3.95 - L15

Alterations: Part Number [Type] [D] - [P] - [L] - (RC)
SFPMT5 - P2.95 - L10 - RC

| Alteration Code | Stem R Alteration RC |
|---|---|
| Spec. | Changes the relief to R0.5. Ordering Code RC   Applicable when D-P≥2. |

Example: The tip is made spherical to prevent PCB damage, and the B dim. is kept short to prevent from going through.




# Locating Pins - Large Head, Tapered

## Nonmagnetic

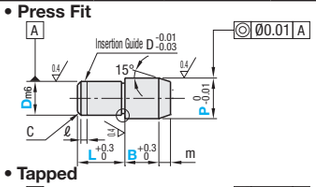
**Features:** Nonmagnetic (Aluminum) Locating Pins. Does not magnetically affect the surroundings.

RoHS 10

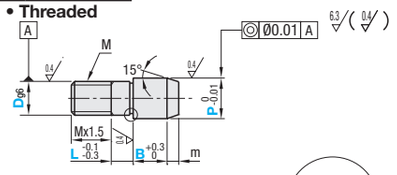
| Material | Surface Treatment | Tip Shape | Type Press Fit | Type Tapped | Type Threaded |
|---|---|---|---|---|---|
| EN AW-2017 Equiv. | Clear Anodize | Round | AFPMA | AFPMTA | AFPMNA |
| | | Diamond | AFPMD | AFPMTD | AFPMND |

Threads are prone to be crushed due to the soft material. Refer to the recommended tightening torque in the table for mounting.

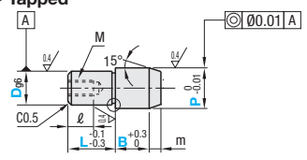
**• Press Fit**

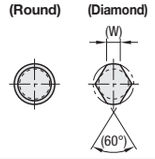



**• Threaded**




**• Tapped**





When P<3
a=0.5
d=P-0.1
When P≥3
a=1.0
d=P-0.2
Relief dimension is a reference value.

## Press Fit

| Part Number Type | D | D dim. Tolerance m6 | P 0.01mm Increment | L 1mm Increment | B 0.1mm Increment | C | m | (W) | ℓ | Unit Price AFPMA | Unit Price AFPMD |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AFPMA AFPMD Diamond Shape is applicable when D≥2. | 1 | +0.008 +0.002 | 1.50~2.50 | 2, 3 | 1.0~5.0 | 0.1 | 0.5 | - | 0 | | - |
| | 2 | | 2.50~4.00 | 2~6 | 1.0~10.0 | 0.5 | 1 | 1.2 | | | |
| | 3 | | 3.50~6.00 | 3~6 | 1.0~10.0 | | 2 | 1.5 | | | |
| | 4 | +0.012 +0.004 | 4.50~7.00 | 4~8 | 1.0~10.0 | 1 | 3 | 1.8 | 1 | | |
| | 5 | | 5.50~8.00 | 5~10 | 1.0~10.0 | | | 2.2 | | | |
| | 6 | | 6.50~10.00 | 6~12 | 1.0~12.0 | | | 3 | | | |
| | 8 | +0.015 +0.006 | 9.00~13.00 | 8~16 | 1.0~15.0 | 1.5 | 4 | 3.5 | | | |
| | 10 | | 11.00~15.00 | 10~20 | 3.0~20.0 | | | 4 | | | |
| | 12 | +0.018 +0.007 | 13.00~16.00 | 12~24 | 3.0~20.0 | 2 | | 5 | | | |
| | 13 | | 14.00~18.00 | 13~26 | 5.0~20.0 | | | 5.5 | 2 | | |
| | 16 | | 17.00~25.00 | 16~32 | 5.0~20.0 | 3 | 5 | 7 | | | |

## Tapped

| Part Number Type | D | D dim. Tolerance g6 | P 0.01mm Increment | L 1mm Increment | B 0.1mm Increment | m | (W) | ℓ | M (Coarse) | Recommended Tightening Torque (kgf·cm) | Unit Price AFPMTA | Unit Price AFPMTD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AFPMTA AFPMTD | 6 | -0.004 -0.012 | 6.50~10.00 | 6(9)~12 | 2.0~12.0 | 3 | 3 | 5 | M3 | 6.25 | | |
| | 8 | -0.005 -0.014 | 9.00~13.00 | 8(12)~16 | 2.0~15.0 | 4 | 3.5 | 8 | M5 | 10 | | |
| | 10 | | 11.00~15.00 | 10(12)~20 | 3.0~20.0 | | 4 | | | | | |
| | 12 | -0.006 -0.017 | 13.00~16.00 | 12~24 | 3.0~20.0 | | 5 | | | | | |
| | 13 | | 14.00~18.00 | 13(14)~26 | 5.0~20.0 | | 5.5 | 10 | M8 | 22.5 | | |
| | 16 | | 17.00~25.00 | 16~32 | 5.0~20.0 | 5 | 7 | 12 | | | | |

L dimension in ( ) is applicable to Diamond Shape. Recommended tightening torque is reference value.

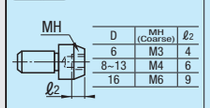
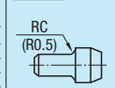
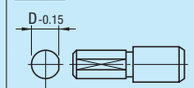
## Threaded

| Part Number Type | D | D dim. Tolerance g6 | P 0.01mm Increment | L 1mm Increment | B 0.1mm Increment | m | (W) | M (Coarse) | Recommended Tightening Torque (kgf·cm) | Unit Price AFPMNA | Unit Price AFPMND |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AFPMNA AFPMND | 3 | -0.002 -0.008 | 3.50~6.00 | 2~6 | 1.0~10.0 | 2 | 1.5 | 3 | 5 | | |
| | 4 | -0.004 -0.012 | 4.50~7.00 | 2~8 | 1.0~10.0 | 3 | 1.8 | 4 | 7 | | |
| | 5 | | 5.50~8.00 | 3~10 | 1.0~10.0 | | 2.2 | 5 | 8.75 | | |
| | 6 | | 6.50~10.00 | 3~10 | 1.0~12.0 | | 3 | 6 | 17.5 | | |
| | 8 | -0.005 -0.014 | 9.00~13.00 | 5~10 | 1.0~15.0 | 4 | 3.5 | 8 | 18.75 | | |
| | 10 | | 11.00~15.00 | 5~15 | 3.0~20.0 | | 4 | 10 | 27.5 | | |
| | 12 | -0.006 -0.017 | 13.00~18.00 | 8~15 | 3.0~20.0 | | 5 | 12 | 92.5 | | |
| | 16 | | 17.00~25.00 | 8~20 | 5.0~20.0 | 5 | 7 | 16 | 100 | | |

Recommended tightening torque is reference value.

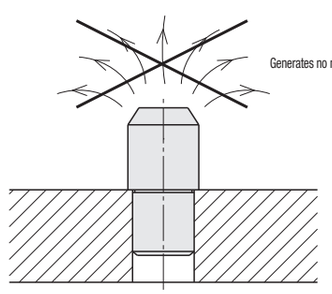
Ordering Example: Part Number [P] - [L] - [B]
AFPMA6 - P8.50 - L6 - B3.0

Alterations: Part Number [P] - [L] - [B] - (MH, RC, AC)
AFPMTA10 - P12.00 - L15 - B6.0 - AC

| Alterations Code | Tapping MH | Stem R Alteration RC | Air Vent AC |
|---|---|---|---|
| Spec. | Adds a tapped hole. Ordering Code MH   | Changes the relief to R0.5. Ordering Code RC   | Adds an air vent. Ordering Code AC   |
| | Applicable when D≥6 B≥ℓ2+4 Not applicable to Tapped. | Applicable when P-D≥2 | Not applicable to Threaded. |

| D | MH (Coarse) | ℓ2 |
|---|---|---|
| 6 | M3 | 4 |
| 8~13 | M4 | 6 |
| 16 | M6 | 9 |

Example: Since made of nonmagnetic metal, usable around small workpieces and the inside of the measuring instruments without magnetic effects.



Generates no magnetic force.