Locating Pins

Nonmagnetic Type

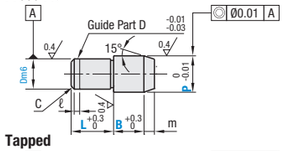
Feature: Nonmagnetic (Aluminum) Locating Pins. Does not magnetically affect the surroundings.

Locating Pins – Nonmagnetic Type

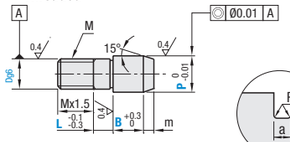
RoHS 10

Type			Tip Shape	Material	Surface Treatment
Press Fit	Tapped	Threaded			
AFPMA	AFPMTA	AFPMNA	Round	2017Aluminum Alloy	Clear Anodize
AFPMD	AFPMTD	AFPMND	Diamond		

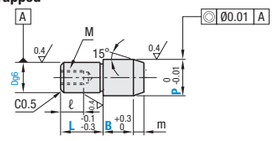
Press Fit

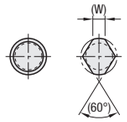


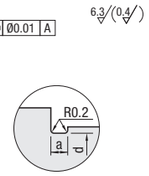
Threaded



Tapped







When P<3 a=0.5 d=D-0.1

When P≥3 a=1.0 d=D-0.2

ⓘ Relief dimension is reference value.

Press Fit

Part Number Type	D	D Tolerance m6	P 0.01 mm Increment	L 1 mm Increment	B 0.1 mm Increment	C	m	(W)	ℓ	Compliance with Standard AFPMA	Compliance with Standard AFPMD	Available Types AFPMA	Available Types AFPMD
AFPMA AFPMD	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		1.2	1.2	—	—
	3		3.50–6.00	3–6	1.0–10.0		2	1.5		1.5	1.5	—	—
	4	+0.012 +0.004	4.50–7.00	4–8	1.0–10.0	1	3	1.8	1	1.8	1.8	—	—
	5		5.50–8.00	5–10	1.0–10.0			2.2		2.2	2.2	—	—
	6		6.50–10.00	6–12	1.0–12.0			3		3	3	—	—
	8	+0.015 +0.006	9.00–13.00	8–16	1.0–15.0	1.5	4	3.5		3.5	3.5	—	—
	10		11.00–15.00	10–20	3.0–20.0	2		4		4	4	—	—
	12	+0.018 +0.007	13.00–16.00	12–24	3.0–20.0			5		5	5	—	—
	13		14.00–18.00	13–26	5.0–20.0			5.5	2	5.5	5.5	—	—
	16		17.00–25.00	16–32	5.0–20.0	3	5	7		7	7	—	—

ⓘ Diamond Shape is applicable when D≥2.

Tapped

Part Number Type	D	D Tolerance g6	P 0.01 mm Increment	L 1 mm Increment	B 0.1 mm Increment	m	(W)	ℓ	M (Coarse)	Recommended Tightening Torque (kgf • cm)
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.
ⓘ Threads are prone to damage due to the soft material. Refer to the recommended tightening torque in the table for mounting.

Threaded

Part Number Type	D	D Tolerance g6	P 0.01 mm Inc.	L 1 mm Inc.	B 0.1 mm Inc.	m	(W)	M (Coarse)	Recommended Tightening Torque (kgfcm)
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. ⓘ Threads are prone to damage due to the soft material. Refer to the recommended tightening torque in the table for mounting.

Part Number Example

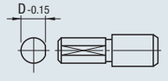
Part Number - P - L - B

AFPMA6 - P8.50 - L6 - B3.0

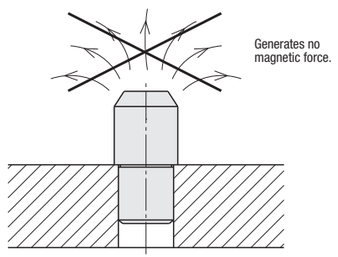
Part Number Alterations

Part Number - P - L - B - (MH / RC / AC)

AFPMTA10 - P12.00 - L15 - B6.0 - AC

Alterations Code	Tapping MH	Underhead Fillet RC	Air Vent AC
Spec.	Adds tapped hole. **Ordering Code:** MH  D / MH (Coarse) / ℓ2: 6 / M3 / 4; 8–13 / M4 / 6; 16 / M6 / 9. ⓘ Applicable when D≥6 ⓘ B≥ℓ2+4 ⊗ Not applicable for tapped pins.	Changes the relief to R0.5. **Ordering Code:** RC  ⓘ Applicable when P-D≥2.	Adds an air vent. **Ordering Code:** AC  ⊗ Not applicable to Threaded Type.

Application Example



Generates no magnetic force.

Locating Pins

Large Head with Resin Tip

Features: Plastic material bonded to the tip of insertion guide prevents workpiece from being scratched.

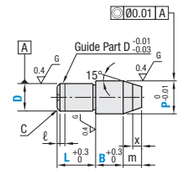
Locating Pins – Large Head with Resin Tip

RoHS 10

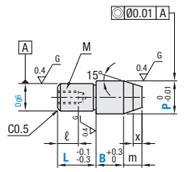
Material No.	Pin Material	Pin Hardness	Head Plastic Material	Type	D Tolerance & Shape Code
(1)	01 Tool Steel	Treated Hardness: 60~63 HRC min.	MC Nylon	JPPH	B Standard, m6
(2)	304 Stainless Steel	—		SJPPH	PB Standard, p6
(3)	440C or 420 Stainless Steel	Treated Hardness: 50~55 HRC min.		CJPPH	TA Tapped, g6
					NA Threaded, g6

ⓘ Features of MC Nylon **P.3067**
ⓘ 440C or 420 Stainless Steel has an identification groove on D mounting section.

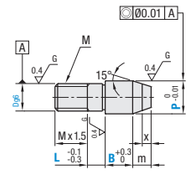
Standard

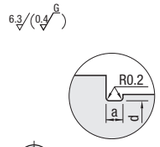


Tapped



Threaded





a=1.0 d=D-0.2

ⓘ Relief dimension is reference value.

*Insertion Guide is applicable to tolerance p6 type only.

Standard

Part Number Type	Shape Code	D	D Tolerance m6	D Tolerance p6	P 0.01 mm Increment	L 1 mm Increment	B 0.1 mm Increment	C	m	x	ℓ
JPPH SJPPH CJPPH	B m6 PB p6	5	+0.012	+0.020	5.50–8.00	5–10	2.0–10.0	1	5	4	1
		6	+0.004	+0.012	6.50–10.00	6–12	2.0–12.0				
		8	+0.015	+0.024	9.00–13.00	8–16	2.0–15.0	1.5			
		10	+0.006	+0.015	11.00–15.00	10–20	3.0–20.0	2			
		12	+0.018	+0.029	13.00–16.00	12–24					
		13	+0.007	+0.018	14.00–18.00	13–26	5.0–20.0	3	6	5	2
		16			17.00–25.00	16–32					
		20	+0.021 +0.008	+0.035 +0.022	22.00–30.00	20–40					

Tapped

Part Number Type	Shape Code	D	D Tolerance g6	P 0.01 mm Increment	L 1 mm Increment	B 0.1 mm Increment	m	x	M (Coarse)	ℓ
JPPH SJPPH CJPPH	TA	5	-0.004	5. 50–8.00	5–10	2.0–10.0	5	4	M2	3
		6	-0.012	6.50–10.00	6–12	2.0–12.0			M3	5
		8	-0.005	9.00–13.00	8–16	2.0–15.0			M5	8
		10	-0.014	11.00–15.00	10–20	3.0–20.0				
		12	-0.006	13.00–16.00	12–24					
		13	-0.017	14.00–18.00	13–26					
		16		17.00–25.00	16–32	5.0–20.0			M6	9
		20	-0.007 -0.020	22.00–30.00	20–40		6	5		

ⓘ When D=5, L+B≥Mx4+1 When D≥6, L+B≥Mx3+1
* The tightening torque (ref. value) for hardened products is strength class 8.8. (See technical data on MISUMI 2019 catalog **P.4015**). Not applicable when using locking agents or spring washers.

Threaded

Part Number Type	Shape Code	D	D Tolerance g6	P 0.01 mm Increment	L 1 mm Increment	B 0.1 mm Increment	m	x	M (Coarse)
JPPH SJPPH CJPPH	NA	5	-0.004	5.50–8.00	3–10	2.0–10.0	5	4	M5
		6	-0.012	6.50–10.00	3–10	2.0–12.0			M6
		8	-0.005	9.00–13.00	5–10	2.0–15.0			M8
		10	-0.014	11.00–15.00	5–15	3.0–20.0			M10
		12	-0.006	13.00–16.00	8–15				M12
		16	-0.017	17.00–25.00	8–20	5.0–20.0			M16
		20	-0.007 -0.020	22.00–30.00	10–20		6	5	M20

* The tightening torque (ref. value) for hardened products is strength class 8.8. (See technical data on **P.4015**). Not applicable when using locking agents or spring washers.

Part Number Example

Part Number: Type - Shape - D - P - L - B

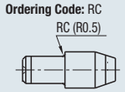
JPPH B 8 - P10.00 - L10 - B5.5

CJPPH TA 16 - P25.00 - L22 - B13.0

Part Number Alterations

Part Number - P - L - B - (RC)

SJPPHB10 - P15.00 - L12 - B6.4 - RC

Alteration Code	Underhead Fillet RC
Spec.	Changes the relief to R0.5. **Ordering Code:** RC  ⓘ Applicable when P-D≥2.