

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 AFPMA AFPMD	Tapped AFPMTA AFPMTD	Threaded AFPMNA AFPMND	Round Diamond
		2017Aluminum Alloy	Clear Anodize

Press Fit

Threaded

Tapped

Round Diamond

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		Available Types	
										AFPMA	AFPMD	AFPMA	AFPMD
AFPMA AFPMD	1	+0.008	1.50-2.50	2-3	1.0-5.0	0.1	0.5	—	—	—	—	—	—
	2	+0.002	2.50-4.00	2-6	1.0-10.0	—	1	1.2	—	—	—	—	—
	3	—	3.50-6.00	3-6	1.0-10.0	0.5	2	1.5	—	—	—	—	—
	4	+0.012	4.50-7.00	4-8	1.0-10.0	—	—	1.8	—	—	—	—	—
	5	+0.004	5.50-8.00	5-10	1.0-10.0	1	3	2.2	—	—	—	—	—
	6	—	6.50-10.00	6-12	1.0-12.0	—	—	3	—	—	—	—	—
	8	+0.015	9.00-13.00	8-16	1.0-15.0	1.5	—	3.5	—	—	—	—	—
	10	+0.006	11.00-15.00	10-20	3.0-20.0	—	—	4	—	—	—	—	—
	12	—	13.00-16.00	12-24	3.0-20.0	2	4	5	—	—	—	—	—
	13	+0.018	14.00-18.00	13-26	5.0-20.0	—	—	5.5	—	—	—	—	—
	16	+0.007	17.00-25.00	16-32	5.0-20.0	3	5	7	—	—	—	—	—

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	—	3.5	—	—	—
	10	—	11.00-15.00	10 (12)-20	3.0-20.0	4	4	8	M5	10
	12	—	13.00-16.00	12-24	3.0-20.0	—	—	—	—	—
	13	-0.006 -0.017	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	M8	22.5

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 AFPMD	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	—	1.8	4	7
	5	—	5.50-8.00	3-10	1.0-10.0	3	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	—	3.5	8	18.75
	10	—	11.00-15.00	5-15	3.0-20.0	4	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	Tapping	Underhead Fillet	Air Vent
Code	MH	RC	AC
Spec.	Adds tapped hole. Ordering Code: MH	Changes the relief to R0.5. Ordering Code: RC	Adds an air vent. Ordering Code: AC
	<p>Applicable when D≥6 B≥ℓ2+4 Not applicable for tapped pins.</p>	<p>Applicable when P-D≥2.</p>	<p>Not applicable to Threaded Type.</p>

Application Example

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.	Material	Pin Hardness	Head Plastic Material	Type	D Tolerance & Shape Code
(1)	O1 Tool Steel	Treated Hardness: 60-63 HRC min.	MC Nylon	JPPH	B Standard, m6
(2)	304 Stainless Steel	—		SJPPH	PB Standard, p6
(3)	440C Stainless Steel Equivalent	Treated Hardness: 50-55 HRC min.		CJPPH	TA Tapped, g6
					NA Threaded, g6

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

Standard

Tapped

Threaded

Round Diamond

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.

*Insertion Guide is applicable to tolerance p6 type only.

Standard

Part Number Type	Shape Code	D	D Tolerance		P 0.01 mm Increment	L 1 mm Increment	B 0.1 mm Increment	C	m	x	ℓ	
			m6	p6								
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					
		10	+0.006	+0.015	11.00-15.00	10-20	3.0-20.0	2	6	5	2	
		12	+0.018	+0.029	13.00-16.00	12-24	5.0-20.0					
		13	+0.007	+0.018	14.00-18.00	13-26	—					
		16	+0.021	+0.035	17.00-25.00	16-32	—					
		20	+0.008	+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					
		8	-0.005	9.00-13.00	8-16	2.0-15.0					
		10	-0.014	11.00-15.00	10-20	3.0-20.0	6	5	M6	9	
		12	-0.006	13.00-16.00	12-24	—					
		13	-0.017	14.00-18.00	13-26	—					
		16	-0.007	17.00-25.00	16-32	—					
		20	-0.020	22.00-30.00	20-40	—	—	—	—	—	—

When D=5, L+B≥Mx4+1 When D≥6, L+B≥Mx3+1
Tightening torque will be within Strength Class of 10.9 as indicated in the Technical Data P.4016 (10.9). Not applicable when using locking materials or lock 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			
		8	-0.005	9.00-13.00	5-10	2.0-15.0			
		10	-0.014	11.00-15.00	5-15	3.0-20.0	6	5	M20
		12	-0.006	13.00-16.00	8-15	—			
		16	-0.017	17.00-25.00	8-20	—			
		20	-0.007 -0.020	22.00-30.00	10-20	—			

Tightening torque will be within Strength Class of 10.9 as indicated in the Technical Data P.4016 (10.9). Not applicable when using locking materials or lock washers.

Part Number Example

Part Number - P - L - B
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	Underhead Fillet
Code	RC
Spec.	Changes the relief to R0.5. Ordering Code: RC
	<p>Applicable when P-D≥2.</p>