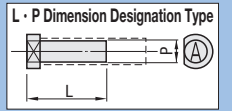


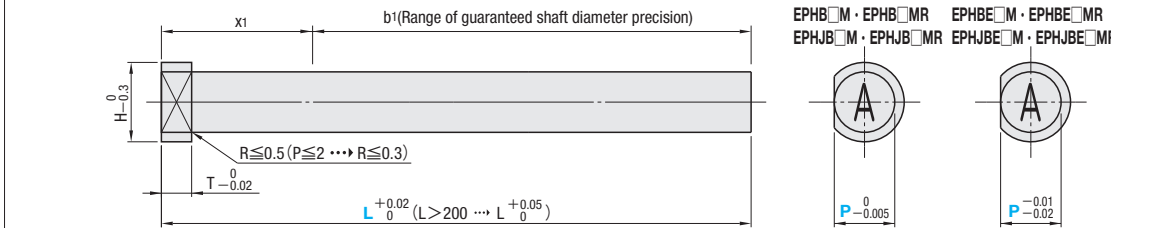
STRAIGHT EJECTOR PINS WITH ENGRAVING

— L · P DIMENSION DESIGNATION TYPE —



Ⓜ Non JIS material definition is listed on P.1351 - 1352

Part Number	Head thickness		P
	Type	Character	
EPHB	□M	4mm(T4)	0
EPHJB	□MR	6 · 8mm(JIS)	-0.005
EPHBE	(Sequential numbering designation)	4mm(T4)	-0.01
EPHJBE		6 · 8mm(JIS)	-0.02



Ⓜ To determine the engraving position, key flat cutting is made at the standard 0°
 Range of guaranteed shaft diameter precision (Details P.1301)
 T4 → x1 max.30 (L > 200 → x1 max.=110)
 JIS → x1 max.35 (L > 200 → x1 max.=110)
 SKH51 equivalent
 58~60HRC
 Range of guaranteed base material hardness (Details P.1303)

1M · 1MR (1 character)	2M · 2MR (2 characters)	3M (3 characters)	4M (4 characters)	5M (5 characters)
0.40 ≤ P ≤ 11.99	1.50 ≤ P ≤ 11.99	2.80 ≤ P ≤ 11.99	3.60 ≤ P ≤ 11.99	4.50 ≤ P ≤ 11.99

Ⓜ Designate characters in the right reading order to appear on the finished products. Ⓜ Refer to P.118 for character font.

4mm head		JIS head		Part Number			0.01mm increments		Characters for engraving (Round Gothic type)
H	T	H	T	Type	Character	No.	L	P	
3	4	8	6	EPHB (P ⁰ -0.005)	1M	0.6	40.00~100.00	0.40~0.59	0 1 2 3 4 5 6 7 8 9 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
						1	40.00~150.00	0.60~0.99	
						1.5	40.00~200.00	1.00~1.49	
						2		1.50~1.99	
						2.5		2.00~2.49	
						3		2.50~2.99	
						3.5		3.00~3.49	
						4		3.50~3.99	
						4.5		4.00~4.49	
						4.5		4.50~4.99	
						5.5		5.00~5.49	
						5.5		5.50~5.99	
4	9	10	6	EPHJB (P ⁰ -0.005)	2M	6.5	6.00~6.49		
						7	6.50~6.99		
						7	7.00~7.99		
						7	8.00~9.99		
						8	10.00~11.99		
						8			
						8			
						8			
						8			
						8			
						8			
						8			
5	10	11	6	EPHBE (P ⁰ -0.02)	1MR	6.5	6.00~6.49		
						7	6.50~6.99		
						7	7.00~7.99		
						7	8.00~9.99		
						8	10.00~11.99		
						8			
						8			
						8			
						8			
						8			
						8			
						8			
6	11	13	6	EPHJBE (P ⁰ -0.01)	2MR	8	7.00~7.99		
						8	8.00~9.99		
						8	10.00~11.99		
						8			
						8			
						8			
						8			
						8			
						8			
						8			
						8			
						8			

Ⓜ Use ¥ for indicating / (slash), # for - (minus), % for . (space), @ for · (centered dot), and & for . (period).
 Ⓜ 1MR and 2MR are sequential numbering designation. In the case of bulk order of two or more ejector pins with the same size, the sequential numbering engraving is performed.
 Ⓜ In case of 1MR, "0" is next to "9" while "A" is next to "Z".
 Ⓜ In case of 2MR, the 1st digit is sequential, and if next to "9" or "Z", it starts from "0" or "A" while the 2nd digit is increased by one.
 Ⓜ In case of 1MR and 2MR, other engraving characters cannot be used for designation.

1MR (Example)
 • When placing the order for 5 pieces of EPHB1MR2-150-P1.8-1, characters for engraving "1 2 3 4 5"
 • When placing the order for 3 pieces of EPHB1MR3-150-P2.8-Z, characters for engraving "Z A B"

2MR (Example)
 • When placing the order for 4 pieces of EPHB2MR4-100-P3.8-01, characters for engraving "01 02 03 04"
 • When placing the order for 4 pieces of EPHB2MR4-100-P3.8-A8, characters for engraving "A8 A9 B0 B1"
 • When placing the order for 6 pieces of EPHB2MR6-150-P5.8-1X, characters for engraving "1X 1Y 1Z 2A 2B 2C"

Ⓜ No. of characters and shaft diameter (P)

No. of characters	P
1M · 1MR (1 character)	0.40~11.99
2M · 2MR (2 characters)	1.50~11.99
3M (3 characters)	2.80~11.99
4M (4 characters)	3.60~11.99
5M (5 characters)	4.50~11.99

Order Part Number L P Characters for engraving (0~9, A~Z, /, <, >, +, -, ., #, %, <math>\leq</math>, \geq)

EPHB 3M 7 - 65.00 - P6.80 - 923
 EPHB 5M 8 - 125.00 - P7.58 - > # & % <

Days to Ship Quotation

Alterations Part Number L P Characters for engraving (AKC · AWC...etc.)
 EPHB3M 7 - 65.00 - P6.80 - 923 - TC2

Alterations	Code	Spec.	1Code
	AKC	AKC=1° increments 0 <math>< AKC < 360</math> Ⓜ When combined with GCB/GCD, 90° increments only Ⓜ No need to designate AKCO	
	AWC	AWC=1° increments 0 <math>\leq AWC < 360</math> Ⓜ When combined with GCB/GCD, 90° increments only	
	ARC	ARC=1° increments 0 <math>\leq ARC < 360</math> Ⓜ When combined with GCB/GCD, 90° increments only	
	ADC	ADC=1° increments 0 <math>\leq ADC < 360</math> Ⓜ When combined with GCB/GCD, 90° increments only	
	KGA	KGA=1° increments 0 <math>< KGA < 360</math>	
	KGB	KGB=1° increments 0 <math>< KGB < 360</math>	
	KAC KBC	Varied width parallel flats cutting P/2 <math>\leq KAC < H/2</math> KBC=0.1mm increments only KAC <math>< KBC < H/2</math> Ⓜ Combination with other key flat cutting not available	

Alteration details P.53

Alterations	Code	Spec.	1Code
	TC	TC=0.1mm increments T/2 <math>\leq TC < T, P \ge 1.5</math> (Dimension L remains unchanged.) Ⓜ T-TC $\le L_{max}$-L	
	HC	HC=0.1mm increments Ⓜ P+1 <math>\le HC < H, P \ge 1.5</math>	
	HCC	HCC=0.1mm increments Ⓜ P+1 <math>\le HCC < H-0.3, P \ge 1.5</math>	
	NHC	Numbering on the head How to order P.54	
	NHN	Automatic sequential numbering on the head How to order P.54	
	GCB	GCB=1° increments Ⓜ 60 <math>\le GCB < 90</math> Ⓜ L ≤ 200, Available when P ≥ 2 Ⓜ Combination with GCD not available.	
	GCD	GCD=1° increments Ⓜ 60 <math>\le GCD < 90</math> Ⓜ L ≤ 200, Available when P ≥ 2 Ⓜ Combination with GCB not available.	
	EC	Engraving depth alteration 0.05~0.1 Ⓜ Available when P ≥ 1 Ⓜ Combination with GCB, GCD not available.	

Relationship between Shaft Diameter (P) and Character Size (Q, W)

No. of characters	P	Q	W	No. of characters	P	Q	W
1M 1MR (1 character)	0.40~0.49	0.25	0.13	2M 2MR (2 characters)	1.50~1.99	0.7	1.1
	0.50~0.59	0.35	0.18		2.00~2.29	0.8	1.2
	0.60~0.79	0.4	0.2		2.30~2.99	1.0	1.3
	0.80~0.99	0.6	0.3		3.00~3.99	1.5	2.0
	1.00~1.29	0.8	0.4		4.00~4.99	2.0	2.6
	1.30~1.49	1.0	0.5		5.00~5.99	2.5	3.3
	1.50~1.99	1.2	0.6		6.00~7.99	3.0	3.9
	2.00~2.49	1.5	0.8		8.00~11.99	4.0	5.2
	2.50~3.49	2.0	1.0		2.80~3.09	0.8	1.8
	3.50~4.49	3.0	1.5		3.10~4.49	1.0	2.1
	4.50~5.49	4.0	2.0		4.50~5.49	1.5	3.2
	5.50~11.99	5.0	2.5		5.50~6.99	2.0	4.2
			7.00~11.99	2.5	5.3		
			3.60~3.89	0.8	2.4		
			3.90~5.49	1.0	2.9		
			5.50~6.99	1.5	4.4		
			7.00~11.99	2.0	5.8		
			4.50~4.99	0.8	3.0		
			5.00~6.99	1.0	3.7		
			7.00~11.99	1.5	5.6		

Ejector pins	Finished products
Reversed reading (Concave character)	Right reading (Convex character)
	Width of engraving (a)
	Angle of engraving (b°)
	Depth of engraving (e)

When P ≤ 0.99
 0.03 ± 0.01
 When P ≥ 1.00
 0.05 ± 0.02
 When EC code is used
 0.1 ± 0.02

Straight Ejector Pins
High Speed Steel SKH51 equivalent