

High Speed Steel
SKH51 equivalent

With Engraving
P · W_{-0.005}
Free designation

PRECISION R-CHAMFERED RECTANGULAR EJECTOR PINS WITH ENGRAVING

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

Part Number
2 places on the upper side are rounded. 4 places are rounded. Head Thickness 4mm P · W_{-0.005}

(2 places on the upper side are rounded.) (4 places are rounded.)
ERVWR□M ERVFR□M
ERVWR□MR ERVFR□MR

Alterations
Part Number: ERVFR3M 5 - 120.25 - P3.50 - W1.50 - R0.1 - N60 - MY3
Characters for engraving: 0~9, A~Z, /, >, <, @, . (AKC · AWC...etc.)

Alteration details P.195

Alterations	Code	Spec.	1Code
	AKC	AKC=1° increments 0 ≤ AKC < 360 When combined with KSA/WSA, 90° increments only.	
	AWC	AWC=1° increments 0 ≤ AWC < 360 When combined with KSA/WSA, 90° increments only.	
	ARC	ARC=1° increments 0 ≤ ARC < 360 When combined with KSA/WSA, 90° increments only.	
	ADC	ADC=1° increments 0 ≤ ADC < 360 When combined with KSA/WSA, 90° increments only.	
	KGA	KGA=1° increments 0 < KGA < 360	
	KGD	KGD=1° increments 0 < KGD < 360	
	HC	HC(HCC)=0.1mm increments HC → Head diameter tolerance -0.3 HCC → Head diameter tolerance -0.02 D+1 ≤ HC < H, D+1 ≤ HCC < H-0.3	
	HCC	HC(HCC)=0.1mm increments HC → Head diameter tolerance -0.3 HCC → Head diameter tolerance -0.02 D+1 ≤ HC < H, D+1 ≤ HCC < H-0.3	
	KSA	KSA=0.1mm increments W/2 + 0.1 ≤ KSA ≤ D/2 - 0.1	
	WSA	WSA=0.1mm increments W/2 + 0.1 ≤ WSA ≤ D/2 - 0.1	
	TC	TC=0.1mm increments 2.0 ≤ TC < 4 (Dimensions L and N remain unchanged) 4 - TC ≤ Lmax. - L	

H	Part Number		0.01mm increments			R	Kmax.	N 1mm increments	Nmin.	Characters for engraving (Round Gothic type)
	Type	Character	D	L	P					
4	ERVWR (2 places on the upper side are rounded.)	1M 2M 3M 4M 5M	2	50.00~ 250.00	0.80~1.80	0.30~ 0.40~	0.1 0.15 0.2 0.3	1.9 2.4 2.9 3.4 3.9 4.4 4.9 5.4 5.9 6.4 6.9 7.9 9.9	23 26 27 29 31 33 40	0 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 (others) Name Slash Greater Less Characters for engraving / > < Order code ¥ > < Name Plus Minus Space Characters for engraving + - · Order code + # % Name Centered dot Period Characters for engraving · . Order code @ &
5			2.5		0.80~2.30					
6			3		1.00~2.80					
7			3.5		1.00~3.30					
8			4		1.00~3.80					
9	ERVFR (4 places are rounded.)	1MR 2MR	6	50.00~ 250.00	1.20~4.30	0.50~	R ≤ W/2 - 0.05	1.9 2.4 2.9 3.4 3.9 4.4 4.9 5.4 5.9 6.4 6.9 7.9 9.9	23 26 27 29 31 33 40	0 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 (others) Name Slash Greater Less Characters for engraving / > < Order code ¥ > < Name Plus Minus Space Characters for engraving + - · Order code + # % Name Centered dot Period Characters for engraving · . Order code @ &
10			4.5		1.50~4.80					
11			5		1.80~5.30					
12			5.5		2.00~5.80					
13			6		2.00~6.30					
14	6.5	2.30~6.80								
15	7	2.30~7.80								
16	8	3.00~9.80								
17	10									

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 ones digit is sequential, and if next to "9" or "Z", it starts from "0" or "A" while the tens digit is increased by one.

In case of 1MR and 2MR, other engraving characters cannot be used for designation.

- When placing the order for 5 pieces of ERVWR1MR2-150-P1.5-W0.5-R0.1-N70-1, characters for engraving "1 2 3 4 5"
- When placing the order for 3 pieces of ERVWR1MR3-150-P2.5-W1.2-R0.1-N70-Z, characters for engraving "Z A B"
- When placing the order for 4 pieces of ERVWR2MR4-100-P3.0-W2.0-R0.1-N50-01, characters for engraving "01 02 03 04"
- When placing the order for 4 pieces of ERVWR2MR4-100-P3.5-W2.2-R0.1-N50-A8, characters for engraving "A8 A9 B0 B1"
- When placing the order for 6 pieces of ERVWR2MR6-150-P5.0-W2.6-R0.1-N70-1X, characters for engraving "1X 1Y 1Z 2A 2B 2C"

Order

Part Number: L - P - W - R - N - Characters for engraving (0~9, A~Z, /, >, <, @, .)

Example: ERVFR 3M 5 - 120.25 - P3.50 - W1.50 - R0.1 - N60 - MY3

Days to Ship **Quotation**

Price **Quotation**

Precision Standard	
Squareness of the tip corner	 Pmax, Pmin, W plane as the base (Pmax - Pmin) ≤ 0.01
Corner R value of the tip corner	 Rmax ≤ 0.03 (Trimming R) The tip corners have been slightly trimmed to measure the P · W dimensions. (Details P.1313)

Relationship between Dimension (P) · (W) and Character Size (Q) · (Z)							
P	W	Q	Z (Character Width)				
			1M	2M	3M	4M	5M
P ≥ Z + 0.2	0.30~0.39	0.2	0.1	0.6	0.9	1.2	1.5
	0.40~0.49	0.25	0.15	0.65	1	1.3	1.65
	0.50~0.59	0.35	0.18	0.76	1.14	1.52	1.9
	0.60~0.79	0.4	0.2	0.8	1.2	1.6	2
	0.80~0.99	0.6	0.3	1	1.5	2	2.5
	1.00~1.29	0.8	0.4	1.2	1.8	2.4	3.0
	1.30~1.49	1.0	0.5	1.4	2.1	2.9	3.7
	1.50~1.99	1.2	0.6	1.6	2.4	3.3	4.2
	2.00~2.49	1.5	0.8	2	3.2	4.4	5.6
	2.50~3.49	2.0	1.0	2.6	4.2	5.8	7
	3.50~4.49	3.0	1.5	3.9	5.9	8	9.7
	4.50~5.49	4.0	2.0	5.2	7.5	10.2	12.4
5.50~10.30	5.0	2.5	6.2	9.0	12.2	14.9	

Ejector pins	Finished products
Reversed reading (Concave character)	Normal character (Convex character)
Details of engraving	
Width of engraving (a) 0.1 × Q ~ 0.2 × Q	
Angle of engraving (b) 35° ± 2°	
Depth of engraving (e)	
<ul style="list-style-type: none"> When P ≤ 0.99, 0.03 ± 0.01 When P ≥ 1.00, 0.05 ± 0.02 	