

I. 壽命計算

KM模組由線性滑軌、滾珠螺桿及軸承三個主要元件組成，其額定壽命計算如下所述，其中額定壽命的定義為：一批相同規格的線性滑軌或滾珠螺桿在同樣的條件下運動時，其中的90%不產生表面疲勞剝落的現象所能行走的總運行距離。

線性滑軌

$$L = \left(\frac{f_c}{f_w} \cdot \frac{C}{P} \right)^3 \times 50 \text{ km}$$

L：額定壽命(km)
 f_c：接觸係數(參照表1)
 f_w：負荷係數(參照表2)
 C：基本動額定負荷(N)
 P：工作負荷(N)

滾珠螺桿及軸承

$$L = \left(\frac{1}{f_w} \cdot \frac{C_a}{P_a} \right)^3 \times 10^6 \text{ rev}$$

L：額定壽命(rev)
 f_w：負荷係數(參照表2)
 C_a：基本動額定負荷(N)
 P_a：軸向負荷(N)

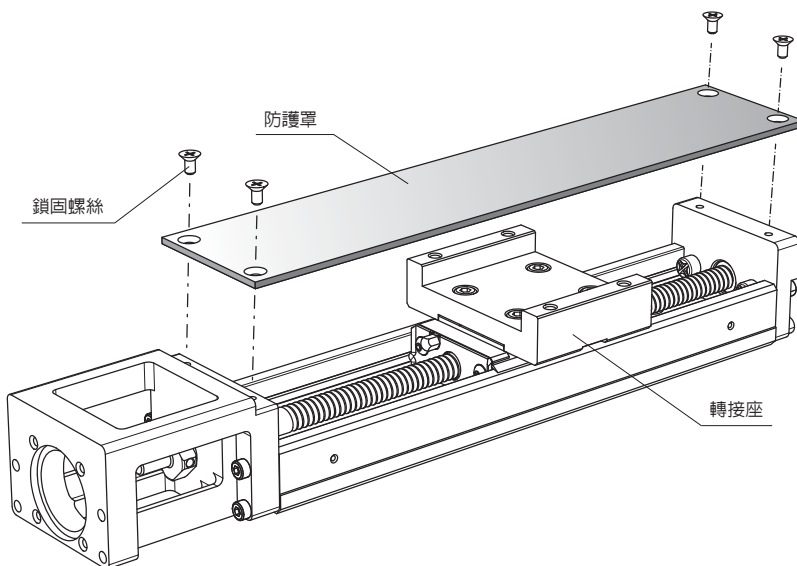
滑塊螺帽型式	接觸係數 f _c
A、C	1.00
B、D	0.81

運轉條件	使用速度	負荷係數 f _w
平滑無衝擊	V ≤ 15m/min	1.0~1.2
普通衝擊力及振動	15 < V ≤ 60m/min	1.2~1.5
中等衝擊力及振動	60 < V ≤ 120m/min	1.5~2.0
強烈衝擊力及振動	V ≥ 120m/min	2.0~3.5

J. 選購配件

防護罩

KM系列提供防護罩選用，並配備轉接座，詳細尺寸請參考各系列尺寸表。



伸縮護罩

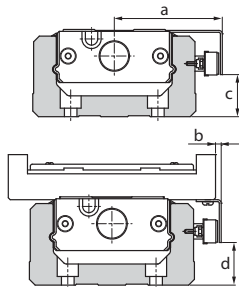
KM系列提供伸縮護罩供客戶選用，如有需求請與 **PMI** 聯絡。

感應器

KM系列提供近接感應器與光電式感應器選用，下表為 *PMI* 所提供之感應器型號，如選用下列感應器，專用之感應器軌道與感應器板會附帶其中，另也可單獨選用感應器軌道。

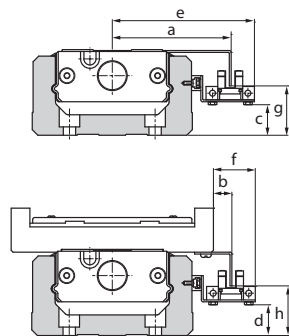
標記	描述	型號	附件
0	無	-	-
1	感應器軌道	-	安裝螺絲釘
2	光電式感應器(3個)	EE-SX671(Omron)	安裝螺絲釘/螺帽、感應板、感應器軌道、安裝板、連結器(EE-1001)
3	光電式感應器(3個)	EE-SX674(Omron)	安裝螺絲釘/螺帽、感應板、感應器軌道、安裝板、連結器(EE-1001)
4	近接感應器 a接觸(3個)	GL-12F (SUNX)	安裝螺絲釘/螺帽、感應板、感應器軌道、安裝件(MS-GL12)
5	近接感應器 a接觸(3個)	GXL-N12F(SUNX)	安裝螺絲釘/螺帽、感應板、感應器軌道、安裝件(MS-GXL12)
6	近接感應器 a接觸(3個)	GL-N12F(SUNX)	安裝螺絲釘/螺帽、感應板、感應器軌道
7	近接感應器 b接觸(3個)	GL-N12FB(SUNX)	安裝螺絲釘/螺帽、感應板、感應器軌道
8	近接感應器 b接觸(3個)	GXL-N12FB(SUNX)	安裝螺絲釘/螺帽、感應板、感應器軌道、安裝件(MS-GXL12)
9	近接感應器 a接觸(1個)、b接觸(2個)	GL-N12F(1個)、GL-N12FB(2個)	安裝螺絲釘/螺帽、感應板、感應器軌道
A	近接感應器 a接觸(1個)、b接觸(2個)	GXL-N12F(1個)、GXL-N12FB(2個)	安裝螺絲釘/螺帽、感應板、感應器軌道、安裝件(MS-GXL12)

感應器安裝之相對尺寸如下所示：



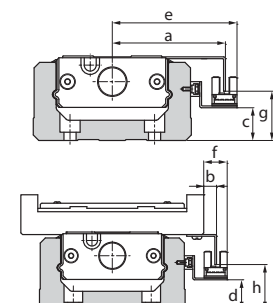
SUNX GL-12F, GL-N12F, GL-N12FB, GXL-N12F, GXL-N12FB 單位：mm

型號	a	b	c	d
KM 26	38.9	7.9	6.2	6.2
KM 30	44	3.8	8.2	8.2
KM 33	44	0.8	9.2	9.2
KM 45	54.0	2.0	14.2	14.2
KM 46	57.0	1.0	22.2	22.2
KM 55	63.9	1.9	21.2	21.2



Omron EE-SX671 單位：mm

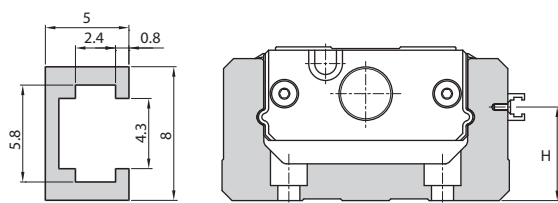
型號	a	b	c	d	e	f	g	h
KM 26	46.0	15.0	2.0	2.0	58.5	27.5	10.5	10.5
KM 30	50.9	10.9	3.8	3.8	63.4	23.4	11.5	11.5
KM 33	50.9	7.9	5.0	5.0	63.4	20.4	13.5	13.5
KM 45	60.9	8.7	8.8	8.8	73.4	21.4	17.3	17.3
KM 46	63.9	7.9	18.0	18.0	76.4	20.4	26.5	26.5
KM 55	70.8	8.8	17.0	17.0	83.3	21.3	25.5	25.5



Omron EE-SX674 單位：mm

型號	a	b	c	d	e	f	g	h
KM 26	43.7	12.7	1.8	1.8	50.0	19.0	10.8	10.8
KM 30	48.6	8.6	3.6	3.6	54.9	14.9	11.8	11.8
KM 33	48.6	5.6	4.8	4.8	54.9	11.9	13.8	13.8
KM 45	58.6	6.6	8.8	8.8	64.9	12.9	17.8	17.8
KM 46	61.6	5.6	17.8	17.8	67.9	11.9	26.8	26.8
KM 55	68.5	6.5	16.8	16.8	74.8	12.8	25.8	25.8

感應器軌道之尺寸如下所示：



單位：mm

型號	H
KM 26	12
KM 30	14
KM 33	15
KM 45	19
KM 46	28
KM 55	27

馬達連接法蘭

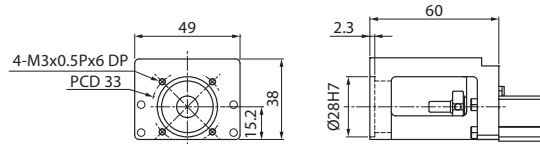
KM系列提供安裝不同馬達之馬達連接法蘭，下表為連接不同馬達時所需選用之連接法蘭編號，請於訂購時參考使用。

馬達廠牌	型號	KM 26	KM 30	KM 33	KM 45	KM 46	KM 55
安川伺服馬達	SGMAH-A3(30W)	2A	3A	3A	4A	4A	
	SGMAH-A5(50W)	2A	3A	3A	4A	4A	
	SGMAH-01(100W)		3A	3A	4A	4A	
	SGMPH-01(100W)				40	40	50
	SGMAH-02(200W)				40	40	50
	SGMAH-04(400W)				40	40	50
	SGMPH-02(200W)						5C
	SGMPH-04(400W)						5C
	SGMAH-08(750W)						5C
三菱伺服馬達	HC-MFS053(50W)	2A	3A	3A	4A	4A	
	HC-MFS13(100W)		3A	3A	4A	4A	
	HC-MFS23(200W)				40	40	50
	HC-KFS23(200W)				40	40	50
	HC-MFS43(400W)				40	40	50
	HC-KFS43(400W)				40	40	50
	HC-KM73(750W)						5C
	HC-KFS73(750W)						5C
松下伺服馬達	MSMA3A(30W)	2D	3D	3D	4D	4D	
	MSMA5A(50W)	2D	3D	3D	4D	4D	
	MSMA01(100W)		3D	3D	4D	4D	
	MQMA01(100W)					40	
	MSMA02(200W)					40	
	MSMA04(400W)					40	
	MSMA08(750W)						5F
Fastech 步進馬達	EzM-28	2G					
	EzM-42	2H	3H	3H	4H	4H	
	EzM-56		3I	3I	4I	4I	
	EzM-60		3J	3J	4J	4J	
東方步進馬達	PK22	2G					
	PK24	2H	3H	3H	4H	4H	
	PK26(標準)		3I	3I	4I	4I	
	PK29						5K
	RK54	2H	3H	3H	4H	4H	
	RK56		3J	3J	4J	4J	
	RK59						5K

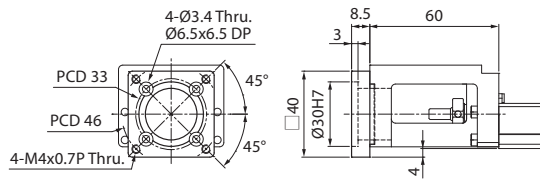
馬達連接法蘭尺寸如下所示：

KM26

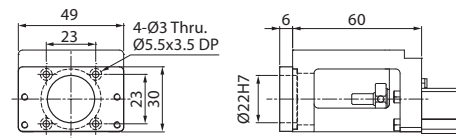
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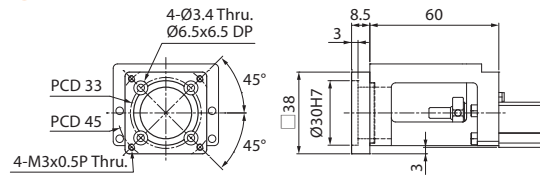
2A



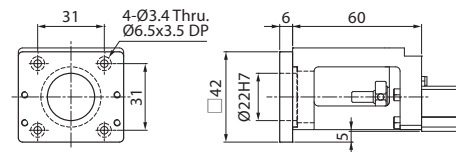
2G



2D

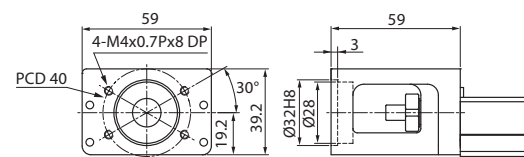


2H

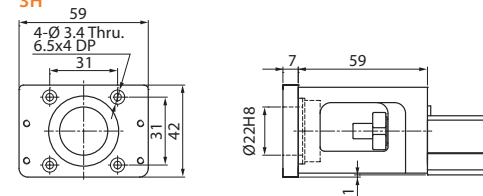


KM30

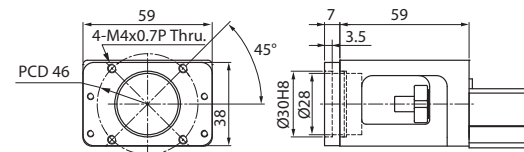
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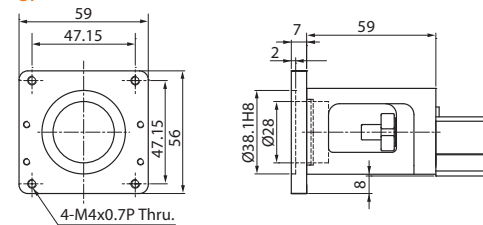
3H



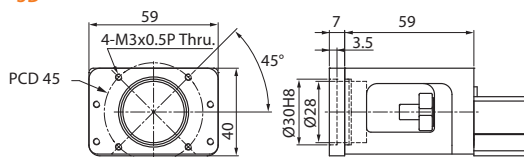
3A



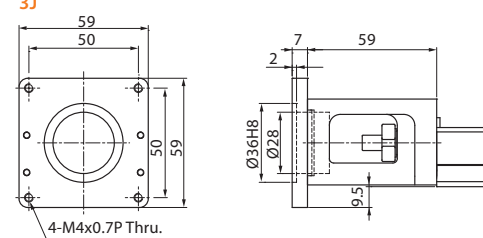
3I



3D

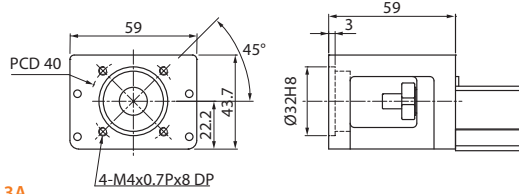


3J

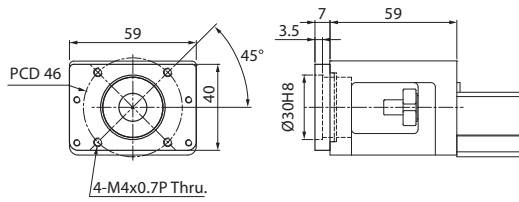


KM33

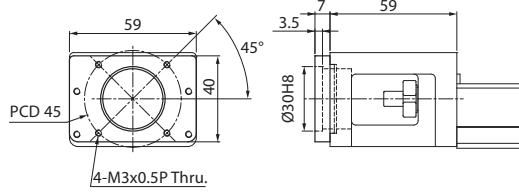
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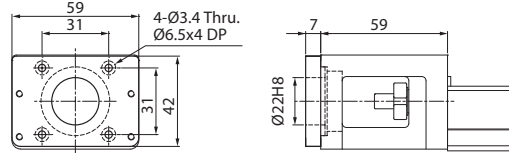
3A



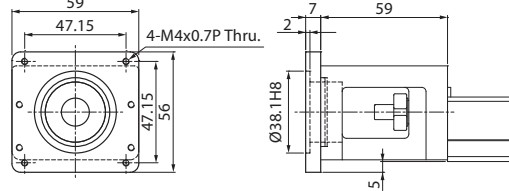
3D



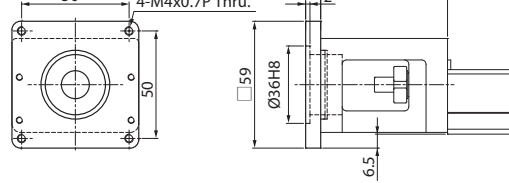
3H



3I

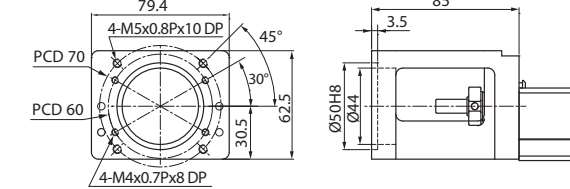


3J

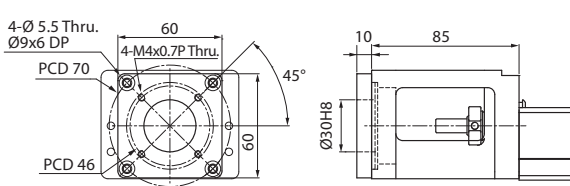


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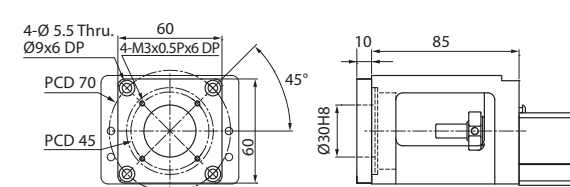
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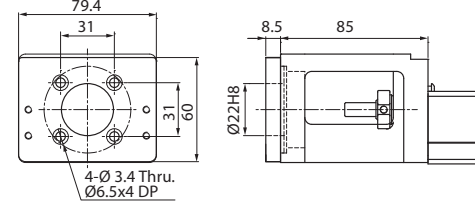
4A



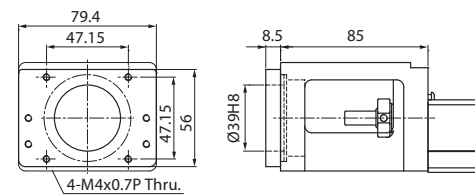
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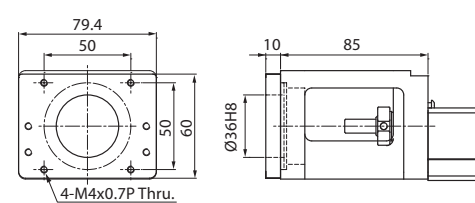
4H



4I

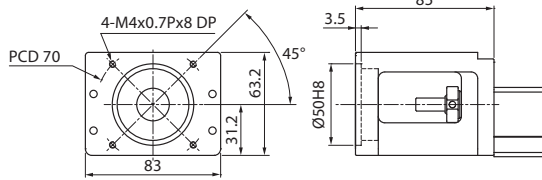


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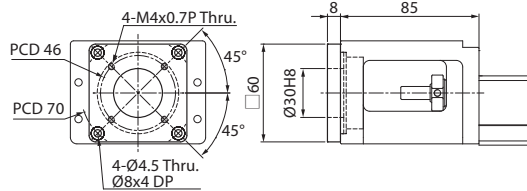


KM46

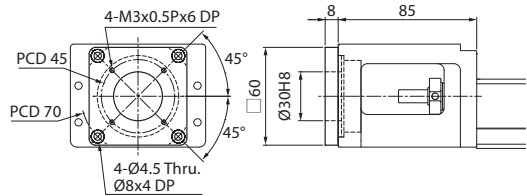
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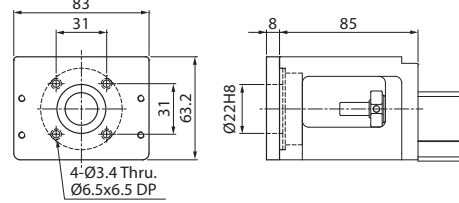
4A



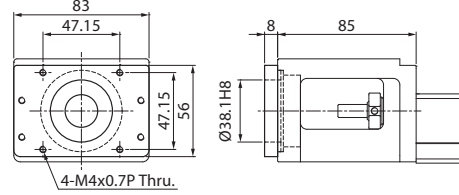
4D



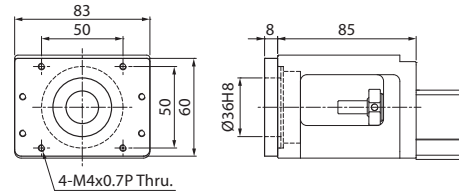
4H



4I

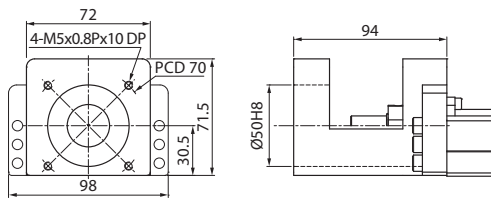


4J

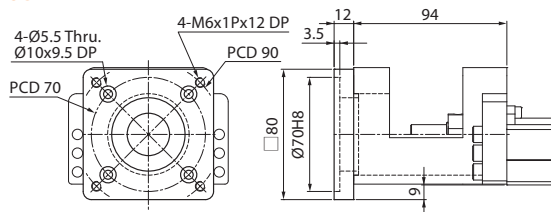


KM55

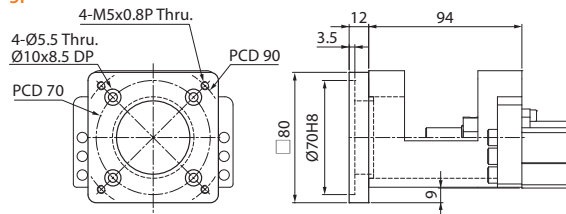
50



5C



5F



5K

