

數據計算 / Data Calculate

作旋轉角度計算時，將各軸所須位移經由以下公式計算，可得正確數值。

According to the mathematical equations listed below, rotation angle can be calculated precisely.

TKX-S 計算公式 / TKX-S Formula

X1 Axis: $\delta X1 = \tan\theta * (Y - X1y) + X1x * (-1 + 1/\cos\theta) + X$

X2 Axis: $\delta X2 = \tan\theta * (Y - X2y) + X2x * (-1 + 1/\cos\theta) + X$

Y Axis: $\delta Y = \tan\theta * (Yx + Yy * \sin\theta - X) + Yy * (\cos\theta - 1) + Y$

$\delta X1$: X1 軸的相對送進量 (mm) }

$\delta X1$: X1 Axis relative movement (mm) }

$\delta X2$: X2 軸的相對送進量 (mm) } (滾珠螺桿的送進量)

$\delta X2$: X2 Axis relative movement (mm) } (movement driven by ball screw)

δY : Y 軸的相對送進量 (mm) }

δY : Y Axis relative movement (mm) }

X1x、X1y : 連接在X1軸上旋轉中心的座標位置

X1x、X1y : Coordinate position of pivot on X1 Axis

X2x、X2y : 連接在X2軸上旋轉中心的座標位置

X2x、X2y : Coordinate position of pivot on X2 Axis

Yx、Yy : 連接在Y軸上旋轉中心的座標位置

Yx、Yy : Coordinate position of pivot on Y Axis

X : X軸移動量

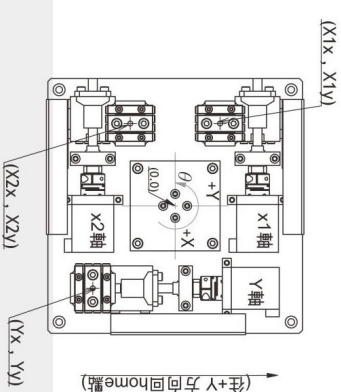
X : X Axis movement

Y : Y軸移動量

Y : Y Axis movement

θ : θ 軸移動量

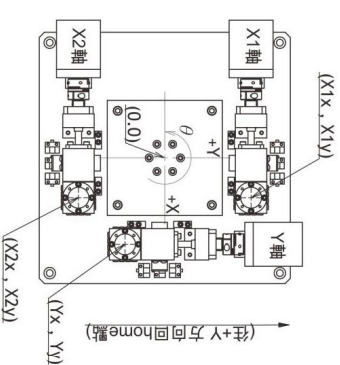
θ : θ Axis rotation angle



(往+X方向回home點) →

TKX-S 計算數據

型號	X1x	X1y	X2x	X2y	Yx	Yy
TKX-100S	-46	15.5	-46	-15.5	41	-37.5
TKX-140S	-55	30	-55	-30	55	-55



(往+X方向回home點) →

TKX-S 計算數據

型號	X1x	X1y	X2x	X2y	Yx	Yy
TKX-170S	29.5	67.5	29.5	-67.5	67.5	-29.5
TKX-200S	38	82.5	38	-82.5	82.5	-38