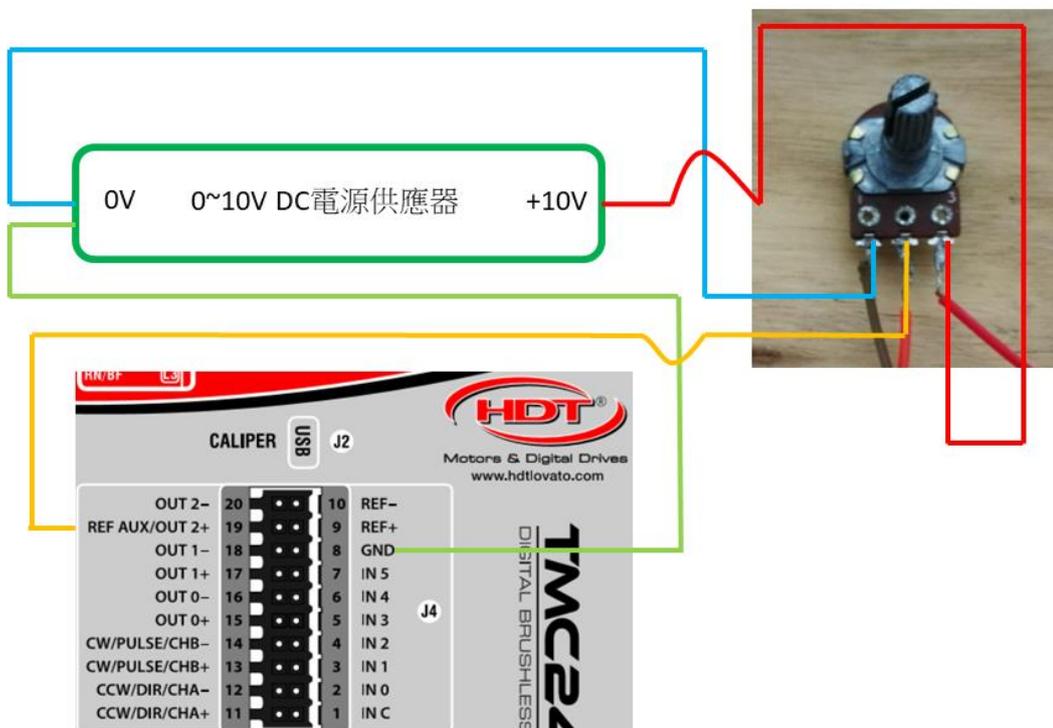




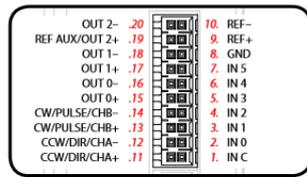
具輔助速度的雙速度輸入的速度模式的設定

Date: June 15th, 2020

1. 本文說明具輔助速度的雙速度輸入的速度模式的設定. 共有 Main Speed 及 Auxiliary Speed 等 2 個速度, 本文的 Main Speed 用 inside 設定, Auxiliary Speed 則用類比電壓輸入控制. 馬達的最終速度是 Main Speed 和 Auxiliary Speed 二者速度的疊加, 即二者的和. 若是只有 0~+10V 的電源供應器 (沒有 -10V~+10V 的電源供應器), 馬達轉速範圍仍可以由本文的應用, 轉速範圍由 -3000RPM~+3000RPM.
2. 準備工具:
 - (A) 0~+ 10V 的直流電源供應器.
 - (B) 旋鈕.
 - (C) 三用電表, 量測旋鈕的實際電壓值.(0V 和中間的電壓)
3. Auxiliary Speed 的接線, 如下所示:



5.06 J4 connector: I/O



Connector TYPE	Double row, pitch 3.5mm
Utility	Analog and digital I/O and Frequency main reference input
N° pins	20

PIN	J4 connector description	
1	IN C	Common reference for NPN or PNP digital inputs.
2	IN_0	
3	IN_1	
4	IN_2	
5	IN_3	
6	IN_4	
7	IN_5	
8	GND	0V ground for analog inputs.
9	REF +	± 10V 12bit ADC differential analog input for main reference.
10	REF -	Available also for PNP digital input IN_6 (single ended PNP). For information, see "6.09.1 Main Reference" pag. 68.
11	CCW/DIR/CH +	Frequency main reference input
12	CCW/DIR/CH -	
13	CW/PULSE/CH +	
14	CW/PULSE/CH -	Line Driver, NPN and PNP optoinsulated digital input for PULSE / CH B external encoder / CW data.
15	OUT 0 +	Optoinsulated programmable NPN/PNP digital output. Normally used for "Drive OK" function, it's high active when no alarms occurred. It's low disabled when an error occurs and drive shuts down in FAULT condition. For information, see "6.08.1 Digital I/O functions" pag. 66.
16	OUT 0 -	
17	OUT1 +	Optoinsulated programmable NPN/PNP digital output. For information, see "6.08.1 Digital I/O functions" pag. 66.
18	OUT1 -	
19	(OUT2+) / REF AUX	0/+10V 12bit ADC single-ended analog input for auxiliary reference (GND at pin 8). Available also for PNP digital input IN_7. For information, see "6.09.2 Auxiliary Reference" pag. 69.

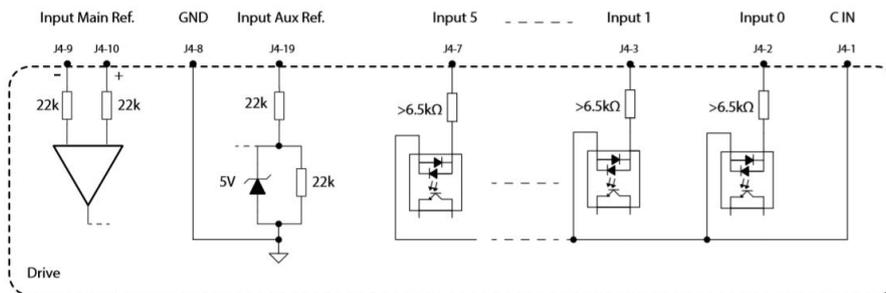
5.13 Analog input and optoinsulated NPN and PNP digital input

The drive allows N° 8 not insulated input:

- N° 1 analog main reference input ±10V (12bit).
- N° 1 analog auxiliary reference input 0/+10V (12bit).
- N° 6 optoinsulated digital input 10/30V, for NPN and PNP configuration.

Signal reference 'C IN' (pin 1 of J4) is common among every optoinsulated input, and GND (pin 8 of J4) is used for analog reference input.

Block diagram for each **input** is shown below:



6.09 Drive references

Drive acquires references, related to operation mode and control topology, from type shown below:

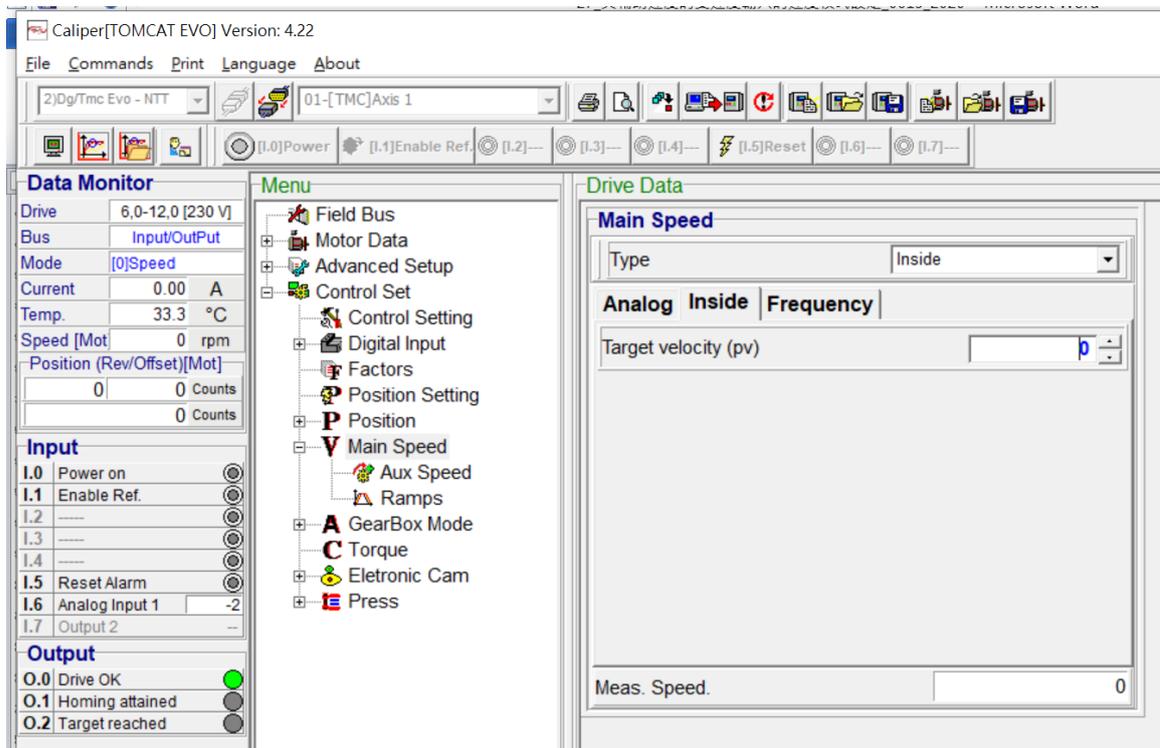
1. Main reference
2. Auxiliary AUX reference

 Having the main analog reference a voltage range between $-10V$ e $+10V$, zero condition is obtained when input voltage to drive pin port (pin 9 and 10 of J4 connector) equals to $0V$. Having the auxiliary reference a voltage range between $0V$ e $+10V$, zero condition is obtained when input voltage to drive pin port (pins 8 and 19 of J4 connector) equals to $5V$. For any further information about connections and about analog input topology, please see "5.06 J4 connector: I/O" pag. 27, "5.13 Analog input and optoinsulated NPN and PNP digital input" pag. 37 e "5.12 Optoinsulated digital output: NPN and PNP" pag. 37.

4. Caliper 設定如下:

Main speed type = Inside

Target velocity (pv) = 0

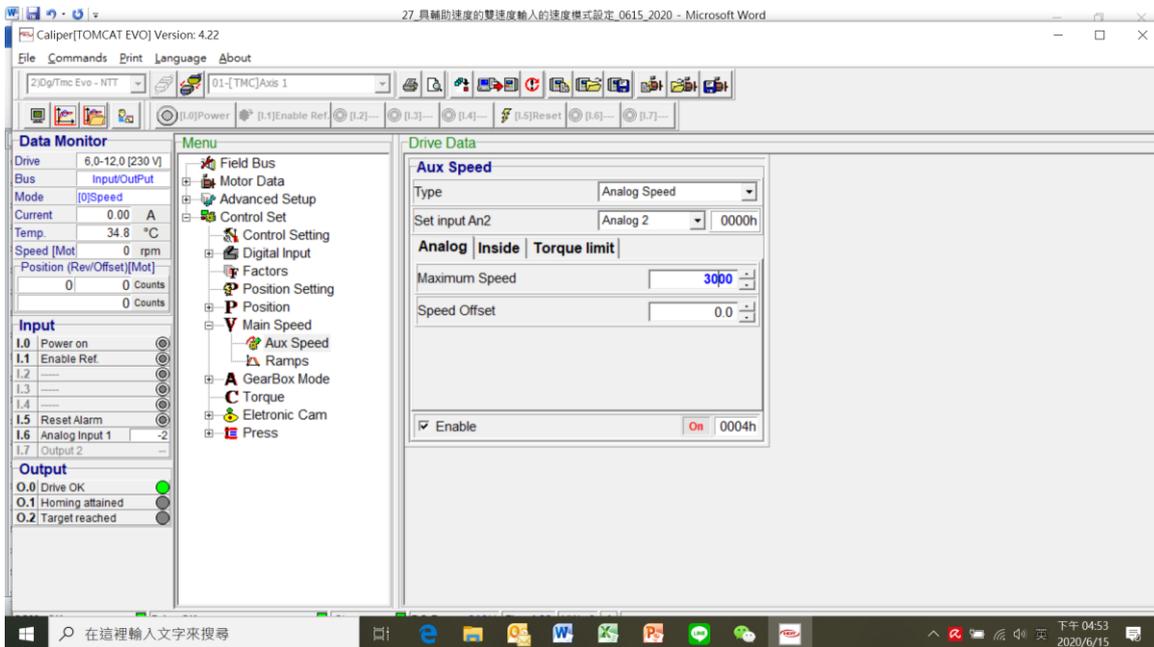


Aux speed type = Analog speed

Set input An2 = Analog 2

Maximum Speed = 3000RPM

Enable = **on**



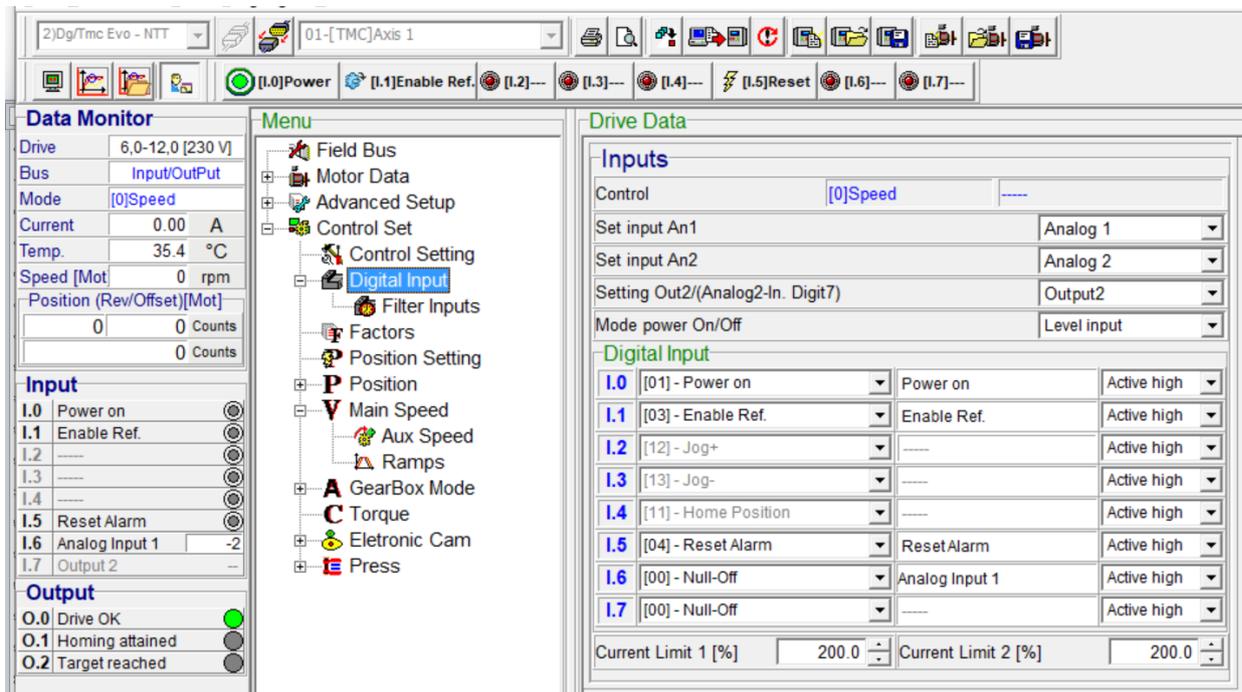
Digital Input 要設定如下

Set input An2 = Analog 2

I.0 = Power on

I.1 = Enable Ref.

I.5 = Reset Alarm



5. 按下 Local control, 按下 [I.0] = Power on, 按下 [I.1] = Enable Ref; 再開始旋轉旋鈕, 則馬達可以由 -3000RPM 轉到 3000RPM (Aux speed 設定的最大值). 其中: 0V = -3000RPM; 5V = 0RPM; 10V = +3000RPM. 每 1V 大約是 600RPM.

6. 本文的重點，在於說明若是只有 0~+10V 的電源供應器(沒有-10V~+10V 的電源供應器)，馬達轉速範圍仍可以由本文的應用，轉速範圍由-3000RPM~+3000RPM.

以下空白



謝謝您的選用

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