DVP06XA-S
DVP06XA-S2

2017-03-15

5011671408-06X4

Instruction Sheet

安　裝　說　明

安　装　说　明

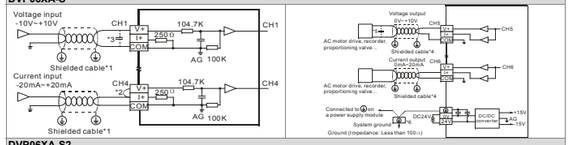
Mixed Analog I/O Module

類比I/O混合模組

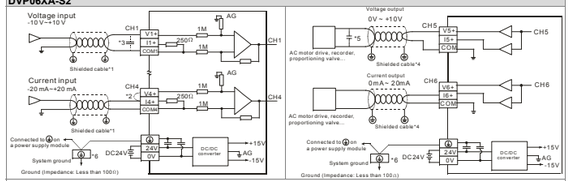
模拟I/O混合模块

▪ External Wiring

DVP06XA-S



DVP06XA-S2



Note 1: Please isolate the analog input cable from other power cables.

Note 2: If current is connected, the connection between V+ and I+ (the connection between V4+ and I4+) needs to be a short circuit.

Note 3: If ripple voltage results in interference with the wiring, please connect a 0.1~0.47 μF and 25 V capacitor.

Note 4: Please isolate the analog output cable from other power cables.

Note 5: If noise interferes with the wiring, and makes the ripple voltage of the input terminal of the load connected high, please connect a 0.1~0.47 μF and 25 V capacitor.

Note 6: Please connect ⏚ on a power supply module and ⏚ on the analog input module to the system ground, and then ground the system ground or connect the system ground to a distribution box.

❷ Specifications

Mixed analog/digital (A/D) module	Voltage input	Current input
Power supply voltage	24VDC (20.4VDC ~ 28.8VDC) (-15% ~ +20%)	
Analog input channel	4 channels per module	
Analog input range	±10V	±20mA
Digital data range	±2,000	±1,000
Resolution	12 bits (1_{LSB}=5mV)	11 bits (1_{LSB}=20μA)
Input impedance (DVP06XA-S)	200KΩ	250Ω
Input impedance (DVP06XA-S2)	≧1MΩ	250Ω
Overall accuracy	±0.5% of full scale of 25°C (77°F). ±1% of full scale during 0 ~ 55°C (32 ~ 131°F).	
Response time	3ms × Number of channels	
Isolation method	DVP06XA-S: The analog circuit and the digital circuit are grounded together. There is no isolation. DVP06XA-S2: The analog circuit is isolated from the digital circuit by an optocoupler, but the analog channels are not isolated from one other.	
Absolution input range	±15V	±32mA
Digital data format	16-bit 2's complement	
Average function	Yes (CR#2 ~ CR#5 can be set and the range is K1 ~ K20)	
Self diagnostic function self detection	Upper bound and lower bound detection per channel	

Mixed digital/analog (D/A) module	Voltage output	Current output
Analog signal output channels	2 channel per module	
Analog output range	0 ~ 10V	0 ~ 20mA
Digital data range	0 ~ 4,000	0 ~ 4,000
Resolution	12 bits (1_{LSB}=2.5mV)	12 bits (1_{LSB}=5μA)
Output impedance	0.5Ω or lower	
Overall accuracy	±0.5% of full scale of 25°C (77°F). ±1% of full scale during 0 ~ 55°C (32 ~ 131°F).	
Response time	3ms × Number of channels	

Mixed digital/analog (D/A) module	Voltage output	Current output
Max. output current	10mA (1KΩ ~ 2MΩ)	-
Tolerance carried impedance	-	0 ~ 500Ω
Digital data format	16-bit 2's complement	
Isolation method	DVP06XA-S: The analog circuit and the digital circuit are grounded together. There is no isolation. DVP06XA-S2: The analog circuit is isolated from the digital circuit by an optocoupler, but the analog channels are not isolated from one other.	
Protection	Voltage output has short circuit protection but long period of short circuit may cause internal wiring damage and current output break.	
Communication mode (RS-485)	Supported, including ASCII/RTU mode. Default communication format: 9600, 7, E, 1, ASCII; refer to CR#32 for details on the communication format. Note1: RS-485 cannot be used when connected to CPU series PLCs. Note2: The communication format can only be changed via RS-485 and cannot be changed via the instruction TO when connected to CPU series PLCs. Refer to Communication Format Setup in the appendix of the DVP programming manual for more details.	
Connecting to a DVP series PLC	When DVP06XA-S/DVP06XA-S2 modules are connected to a PLC, the modules are numbered from 0-7. 0 is the closest to the PLC and 7 is the furthest. The Maximum number of modules is 8 modules and they do not occupy any digital I/O points of the PLC.	

▪ Others

Power supply	
Maximum power consumption	2W at 24VDC (20.4VDC ~ 28.8VDC) (-15% ~ +20%), supplied by external power.
Environment	
Operation/storage	Operation: 0°C ~ 55°C (temperature); 5 ~ 95% (humidity); pollution degree 2. Storage: -25°C ~70°C (temperature); 5 ~ 95% (humidity).
Vibration/shock immunity	International standards: IEC 61131-2, IEC 68-2-6 (TEST Fc)/IEC 61131-2 & IEC 68-2-27 (TEST Ea)

❸ CR (Control Register)

CR#	RS-485 parameter address	Latched		Register name	b15 b14 b13 b12 b11 b10 b9 b8 b7 b6 b5 b4 b3 b2 b1 b0 CH6 CH5 CH4 CH3 CH2 CH1
#0	H'40C8	○	R	Model type	For system use Data length: 8 bits (b7 ~ b0) Model code of DVP06XA-S: H'CC Model code of DVP06XA-S2: H'D4 Users can read the model type by means of a program to check if the extension module exists.
#1	H'40C9	○	R/W	Input mode setting	Input mode setting: (CH1 ~ CH4) Mode 0: Voltage input mode (-10V ~ +10V) Mode 1: Voltage input mode (-6V ~ +10V) Mode 2: Current input mode (-12mA ~ +20mA) Mode 3: Current input mode (-20mA ~ +20mA) Mode 7: Disabling a channel (Only applicable to DVP06XA-S2) Output mode setting: (CH5 ~ CH6) Mode 0: Voltage output mode (0V ~ 10V) Mode 1: Voltage mode (2V ~ 10V) Mode 2: Current output mode (4mA ~ 20mA) Mode 3: Current output mode (0mA ~ 20mA)
CR#1: b11~b0 are used to set 4 internal channels working mode of analog input module (AD). b12~b15 are used to set 2 channels working mode of analog output module (DA). Every channel has four modes that can be set individually. For example: if setting CH1 to mode 0 (b2~b0=000), CH2 to mode 1 (b5~b3=001), CH3: mode 2 (b8~b6=010), CH4: mode 3 (b11~b9=011), b0~b11 need be set to H'688. If setting CH5: mode 2 (b13~b12=10), CH6: mode 1 (b15~b14=01), b12~b15 need be set to H'6. Factory Setting is H'0000.					
#2	H'40CA	○	R/W	CH1 average number	The number of readings used for "average" temperature on channels CH1 ~ CH4. Setting range is K1 ~ K20 and factory setting is K10.
#3	H'40CB	○	R/W	CH2 average number	
#4	H'40CC	○	R/W	CH3 average number	
#5	H'40CD	○	R/W	CH4 average number	
#6	H'40CE	×	R	Average value of CH1 input signal	Display average value of CH1 ~ CH4 input signal. Example: If CR#2 is 10, the temperature in CR#6 will be the average of the last 10 readings on CH1.
#7	H'40CF	×	R	Average value of CH2 input signal	
#8	H'40D0	×	R	Average value of CH3 input signal	
#9	H'40D1	×	R	Average value of CH4 input signal	
#10	H'40D2	×	R/W	CH5 output signal value	Output value of CH5 ~ CH6, the setting range is K0 ~ K4,000. The factory setting is K0 and the unit is LSB.
#11	H'40D3	×	R/W	CH6 output signal value	
#12	H'40D4	×	R	Present value of CH1 input signal	Display present value of CH1 ~ CH4 input signal

CR#	RS-485 parameter address	Latched		Register name	b15 b14 b13 b12 b11 b10 b9 b8 b7 b6 b5 b4 b3 b2 b1 b0 CH6 CH5 CH4 CH3 CH2 CH1
#13	H'40D5	×	R	Present value of CH2 input signal	
#14	H'40D6	×	R	Present value of CH3 input signal	
#15	H'40D7	×	R	Present value of CH4 input signal	
#18	H'40DA	○	R/W	To adjust OFFSET value of CH1	Offset setting of CH1 ~ CH2. Factory setting is K0 and unit is LSB. Voltage input: setting range is K-1,000$_{LSB}$ ~ K1,000$_{LSB}$. Current input: setting range is K-1,000$_{LSB}$ ~ K1,000$_{LSB}$.
#19	H'40DB	○	R/W	To adjust OFFSET value of CH2	
#20	H'40DC	○	R/W	To adjust OFFSET value of CH3	Offset setting of CH3 ~ CH4. Factory setting is K0 and unit is LSB. Voltage input: setting range is K-1,000$_{LSB}$ ~ K1,000$_{LSB}$. Current input: setting range is K-1,000$_{LSB}$ ~ K1,000$_{LSB}$.
#21	H'40DD	○	R/W	To adjust OFFSET value of CH4	
#22	H'40DE	○	R/W	To adjust OFFSET value of CH5	Offset setting of CH5 ~ CH6. Factory setting is K0 and unit is LSB.
#23	H'40DF	○	R/W	To adjust OFFSET value of CH6	The setting range is K-2,000$_{LSB}$ ~ K2,000$_{LSB}$.
#24	H'40E0	○	R/W	To adjust GAIN value of CH1	GAIN setting of CH1~CH4. Factory setting is K1,000 and unit is LSB.
#25	H'40E1	○	R/W	To adjust GAIN value of CH2	Voltage input: setting range is K-800$_{LSB}$ ~ K4,000$_{LSB}$.
#26	H'40E2	○	R/W	To adjust GAIN value of CH3	Current input: setting range is K-800$_{LSB}$ ~ K2,600$_{LSB}$.
#27	H'40E3	○	R/W	To adjust GAIN value of CH4	Please be notice that GAIN VALUE - OFFSET VALUE=+200$_{LSB}$ ~ +3,000$_{LSB}$ (voltage) or +200$_{LSB}$ ~ +1,600$_{LSB}$ (current)
#28	H'40E4	○	R/W	To adjust GAIN value of CH5	GAIN setting of CH5 ~ CH6. Factory setting is K2,000 and unit is LSB.
#29	H'40E5	○	R/W	To adjust GAIN value of CH6	The setting range is K0 ~ K4,000. Please be noticed that GAIN value – OFFSET value= +400$_{LSB}$ ~ +6,000$_{LSB}$ (voltage or current).
CR#24~CR#29: If the value difference comes up small (within range), the output signal resolution is then slim and the variation is definitely larger. On the contrast, if the value difference exceeds the range, the output signal resolution becomes larger and the variation is definitely smaller.					
#30	H'40E6	×	R	Error status	Data register stores the error status, see error code chart for details.

CR#30 is the error code. Please refer to the chart below.

Error description	Value	b15~ b12	b11	b10	b9	b8	b7	b6	b5	b4	b3	b2	b1	b0
Abnormal power	K1 (H'1)	Reserved	0	0	0	0	0	0	0	0	0	0	0	1
The D/A output exceeds the range.	K2 (H'2)		0	0	0	0	0	0	0	0	0	0	1	0
Mode error	K4 (H'4)		0	0	0	0	0	0	0	0	0	1	0	0
Offset/gain error	K8 (H'8)		0	0	0	0	0	0	0	0	1	0	0	0
Hardware malfunction	K16 (H'10)		0	0	0	0	0	0	0	1	0	0	0	0
Abnormal digital value	K32 (H'20)		0	0	0	0	0	0	1	0	0	0	0	0
Incorrect number of values averaged	K64 (H'40)		0	0	0	0	0	1	0	0	0	0	0	0
Instruction error	K128 (H'80)		0	0	0	0	1	0	0	0	0	0	0	0
The input received by CH1 is out of the range.	K256 (H'100)		0	0	0	1	0	0	0	0	0	0	0	0
The input received by CH2 is out of the range.	K512 (H'200)		0	0	1	0	0	0	0	0	0	0	0	0
The input received by CH3 is out of the range.	K1024 (H'400)		0	1	0	0	0	0	0	0	0	0	0	0
The input received by CH4 is out of the range.	K2048 (H'800)		1	0	0	0	0	0	0	0	0	0	0	0

Note: Each error code corresponds to a bit (b0 ~ b11). Two or more errors may happen at the same time. 0 means there is an error, and 1 means there is an error.

Example: If the digital input exceeds 4,000, the error K2 will occur. If the analog output exceeds 10V, the errors K2 and K32 will occur. (A/D does not support displaying the error K2.)

CR#	RS-485 parameter address	Latched		Register name	b15 b14 b13 b12 b11 b10 b9 b8 b7 b6 b5 b4 b3 b2 b1 b0 CH6 CH5 CH4 CH3 CH2 CH1
#31	H'40E7	○	R/W	Communication address setting	RS-485 communication address. Setting range is K1 ~ K254 and factory setting is K1.
#32	H'40E8	○	R/W	Communication baud rate setting	Communication baud rate (4,800/9,600/19,200/38,400/57,600/115,200 bps). For ASCII mode, date format is 7 bits, even, 1 stop bit (7, E, 1). For RTU mode, date format is 8 bits, even, 1 stop bit (8, E, 1). b0: 4,800 bps (bit/sec); b1: 9,600 bps (bit/sec) (factory setting); b2: 19,200 bps (bit/sec); b3: 38,400 bps (bit/sec); b4: 57,600 bps (bit/sec); b5: 115,200 bps (bit/sec); b6 ~ b13: reserved; b14: switch between low bit and high bit of CRC code (only for RTU mode); b15: RTU mode.
#33	H'40E9	○	R/W	Reset to factory setting and set characteristics adjustable priority	Example: Setting of CH1 1. When b0=0, user can set OFFSET and GAIN value of CH1 (CR#18, CR#24). When b0=1, inhibit user to adjust OFFSET and GAIN value of CH1 (CR#18, CR#24). 2. b1 means if characteristic register is latched. b1=0 (factory setting, latched), b1=1 (not latched). 3. b2: Set to 1 and PLC will be reset to factory settings. The setting of CH5 ~ CH6, give CH5 setting for example (b13, b12): 00: can be adjusted, latched. 01: can be adjusted, non-latched. 10: inhibit adjust. 11: reset to factory settings and clear b12, b13 to 0.
CR#33 is used to set the internal function priority. For example: characteristic register. Output latched function will save output setting in the internal memory before power loss.					
#34	H'40EA	○	R	Software version	Display software version in hexadecimal. Example: H'010A=version 1.0A.
#35 ~ #48					System used

Symbols: ○ means latched. R means can read data by using FROM instruction or RS-485. × means non-latched. W means can write data by using TO instruction or RS-485.

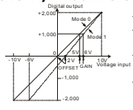
LSB (Least Significant Bit): 1. Voltage input: 1_{LSB}=10V/2,000=5mV. 2. Current input: 1_{LSB}=20mA/1,000=20μA.
1. Voltage output: 1_{LSB}=10V/4,000=2.5mV. 2. Current output: 1_{LSB}=20mA/4,000=5μA.

※ The corresponding parameters address H'40C8 ~ H'40EA of CR#0 ~ CR#34 will allow user to read/write data via RS-485. Function code: 03'H - read data from register. 06'H - write one word into register. 10'H - write multiple words into register.

❹ Analog/Digital Curves

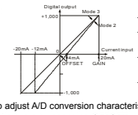
▪ Adjusting the A/D Conversion Curves of CH1 ~ CH4

Voltage input mode:



Mode 0 of CR#1:	GAIN=5V (1,000$_{LSB}$), OFFSET=0V (0$_{LSB}$).	
Mode 1 of CR#1:	GAIN=6V (1,200$_{LSB}$), OFFSET=2V (400$_{LSB}$).	
GAIN:	Voltage input value when digital output is K4,000. Setting range is -800$_{LSB}$ ~ +4,000$_{LSB}$	
OFFSET:	Voltage input value when digital output is 0. Setting range is -1,000$_{LSB}$ ~ +1,000$_{LSB}$	
GAIN-OFFSET:	Setting range is +200$_{LSB}$ ~ +3,000$_{LSB}$	

Current input mode:

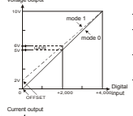


Mode 2 of CR#1:	GAIN=20mA (1,000$_{LSB}$), OFFSET=4mA (200$_{LSB}$).	
Mode 3 of CR#1:	GAIN=20mA (1,000$_{LSB}$), OFFSET=0mA (0$_{LSB}$).	
GAIN:	Current input value when digital output is K4000. Setting range is -800$_{LSB}$ ~ +2,600$_{LSB}$	
OFFSET:	Current input value when digital output value is 0. Setting range is -1,000$_{LSB}$ ~ +1,000$_{LSB}$	
GAIN-OFFSET:	Setting range is +200$_{LSB}$ ~ +1,600$_{LSB}$	

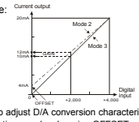
Use the chart above to adjust A/D conversion characteristic curve of voltage input mode and current input mode. Users can adjust conversion characteristic curve by changing OFFSET values (CR#18~CR#21) and GAIN values (CR#24~CR#27) according to application.

▪ Adjusting the D/A Conversion Curves of CH5 ~ CH6

Voltage output mode:



Current output mode:



Mode 0 of CR#1:	GAIN=5V (2,000$_{LSB}$), OFFSET=0V (0$_{LSB}$)	
Mode 1 of CR#1:	GAIN=6V (2,400$_{LSB}$), OFFSET=2V (800$_{LSB}$).	
GAIN:	Voltage output value when digital input is K2,000. Setting range is 0$_{LSB}$ ~ +4,000$_{LSB}$.	
OFFSET:	Voltage output value when digital input is K0. Setting range: -2,000$_{LSB}$ ~ +2,000$_{LSB}$.	
GAIN-OFFSET:	Setting range is +400$_{LSB}$ ~ +6,000$_{LSB}$.	
Mode 2 of CR#1:	GAIN=12mA (2,400$_{LSB}$), OFFSET=4mA (800$_{LSB}$).	
Mode 3 of CR#1:	GAIN=10mA (2,000$_{LSB}$), OFFSET=0mA (0$_{LSB}$).	
GAIN:	Current output value when digital input is K2,000. Setting range is 0$_{LSB}$ ~ +4,000$_{LSB}$.	
OFFSET:	Current output value when digital input is K0. Setting range is -2,000$_{LSB}$ ~ +2,000$_{LSB}$.	
GAIN-OFFSET:	Setting range is +400$_{LSB}$ ~ +6,000$_{LSB}$	

Use the chart above to adjust D/A conversion characteristic curve of voltage output mode and current output mode. Users can adjust conversion characteristic curve by changing OFFSET values (CR#14~CR#15) and GAIN values (CR#18~CR#19) according to application.

⚠ Warning

ENGLISH

EN ➚ DVP06XA-S/DVP06XA-S2 is an OPEN-TYPE device. It should be installed in a control cabinet free of airborne dust, humidity, electric shock and vibration. To prevent non-maintenance staff from operating DVP06XA-S/DVP06XA-S2, or to prevent an accident from damaging DVP06XA-S/DVP06XA-S2, the control cabinet in which DVP06XA-S/DVP06XA-S2 is installed should be equipped with a safeguard. For example, the control cabinet in which DVP06XA-S/DVP06XA-S2 is installed can be unlocked with a special tool or key.

EN ➚ DO NOT connect AC power to any of I/O terminals, otherwise serious damage may occur. Please check all wiring again before DVP06XA-S/DVP06XA-S2 is powered up. After DVP06XA-S/DVP06XA-S2 is disconnected, Do NOT touch any terminals in a minute. Make sure that the ground terminal ⏚ on DVP06XA-S/DVP06XA-S2 is correctly grounded in order to prevent electromagnetic interference.

FR ➚ DVP06XA-S/DVP06XA-S2 est un module OUVERT. Il doit être installé que dans une enceinte protectrice (boitier, armoire, etc.) saine, dépourvue de poussière, d'humidité, de vibrations et hors d'atteinte des chocs électriques. La protection doit éviter que les personnes non habilitées à la maintenance puissent accéder à l'appareil (par exemple, une clé ou un outil doivent être nécessaire pour ouvrir a protection).

FR ➚ Ne pas appliquer la tension secteur sur les bornes d'entrées/Sorties, ou l'appareil DVP06XA-S/DVP06XA-S2 pourra être endommagé. Merci de vérifier encore une fois le câblage avant la mise sous tension du DVP06XA-S/DVP06XA-S2. Lors de la déconnection de l'appareil, ne pas toucher les connecteurs dans la minute suivante. Vérifier que la terre est bien reliée au connecteur de terre ⏚ afin d'éviter toute interférence électromagnétique.

❶ Introduction

▪ Model Explanation & Peripherals

- Thank you for choosing the Delta DVP series PLC. The analog input/output module DVP06XA-S/DVP06XA-S2 receives external 4-point analog signal input (voltage or current) and converts it into 12-bit digital signals. DVP06XA-S/DVP06XA-S2 receives two pieces of 12-bit digital data from a PLC, and converts the digital data into 2-point analog signal output (voltage or current). There are 49 CRs (control registers) in the module, and each register has 16 bits. A DVP series slim type PLC can read data from DVP06XA-S/DVP06XA-S2 or write data to DVP06XA-S/DVP06XA-S2 by means of the instruction FROM/TO.
- The user can select voltage or current input by wiring. Range of voltage input: ±10VDC (resolution: 5mV). Range of current input: ±20mA (resolution: 20μA).
- The user can also select voltage or current output by wiring. Range of voltage output: 0V ~ +10VDC (resolution: 2.5mV). Range of current output: 0mA ~ 20mA (resolution: 5μA).

▪ Outline & Arrangement of the Terminals

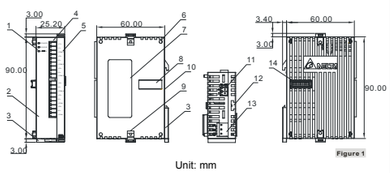
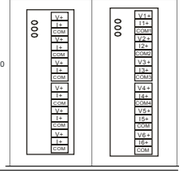


Figure 1

Arrangement of the terminals	
DVP06XA-S	DVP06XA-S2



1. POWER, RUN and ERROR indicators	8. Extension port
2. Model name	9. Extension unit clip
3. DIN rail clip	10. DIN rail groove (35mm)
4. I/O terminals	11. RS-485 communication port
5. I/O point indicators	12. Mounting groove of the extension unit
6. Mounting hole of the extension unit	13. DC power input
7. Nameplate	14. Extension port

Smarter. Greener. Together.

⚠ 注意事項

繁體中文

- ✓ 請在使用之前，詳細閱讀本使用說明書。
- ✓ 請勿在上電時觸摸任何端子，實施配線，務必關閉電源。
- ✓ 本機為開放型（OPEN TYPE）機殼，因此使用者使用本機時，必須將之安裝於具防塵、防潮及免於電擊/衝擊意外之外殼配線箱內，另必須具備保護措施（如：特殊之工具或鑰匙才可打開）防止非維護人員操作或意外衝擊本體，造成危險及損壞。
- ✓ 交流輸入電源不可連接於輸入/出信號端，否則可能造成嚴重的損壞，因此請在上電之前再次確認電源配線
- ✓ 輸入電源切斷後，一分鐘之內，請勿觸摸內部電路。
- ✓ 本體上之接地端子 ⏚ 務必正確的接地，可提高產品抗雜訊能力。

❶ 產品簡介

▪ 說明及週邊裝置

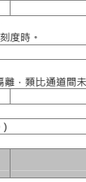
- 謝謝您採用台達 DVP 系列產品。DVP06XA-S/DVP06XA-S2 類比輸入/輸出混合模組包含可接受外部 4 點類比信號輸入（電壓或電流皆可），將之轉換成 12 位元之數位信號。及類比信號輸出部份接受來自 PLC 主機的 2 組 12 位元數位資料，再將數位資料轉換為 2 點類比信號輸出（電壓/電流皆可）模組內具有 49 個 CR（Control Register）暫存器，每個暫存器有 16 bits，透過 DVP 薄型系列（Slim type）主機程式以指令 FROM/TO 來讀寫模組內之資料。
- 類比信號輸入部份使用者可經由配線選擇電壓輸入或電流輸入。電壓輸入範圍 ±10VDC（解析度為 5mV）。電流輸入範圍 ±20mA（解析度為 20μA）。
- 類比信號輸出部份使用者可經由配線選擇電壓輸出或電流輸出。電壓輸出範圍 0V ~ +10VDC（解析度為 2.5 mV）。電流輸出範圍 0mA ~ 20mA（解析度為 5μA）。

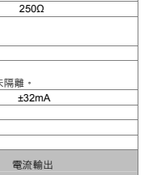
▪ 產品各部介紹及端子配置

產品各部介紹請參考英文版之 Figure 1（尺寸單位：mm）。

1. 電源、錯誤及運行指示燈	8. 擴充機/擴充模組連接口
2. 機種型號	9. 擴充機/擴充模組固定扣
3. DIN 軌固定扣	10. DIN 軌槽（35mm）
4. 端子	11. RS-485 通訊口
5. 端子配置	12. 擴充機/擴充模組固定槽
6. 擴充機/擴充模組定位孔	13. 電源輸入口
7. 銘牌	14. 擴充機/擴充模組連接口

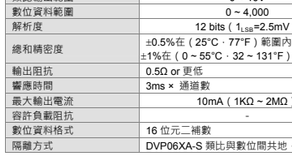
端子配置	
DVP06XA-S	DVP06XA-S2





▪ 外部配線

DVP06XA-S



DVP06XA-S2

註 1：類比輸入請與其他電源線隔離。

註 2：如果連接電流信號時，V+及 I+（V4+及 I4+）端子請務必短路。

註 3：如果輸入電壓有雜波造成配線受雜訊 干擾時請連接 0.1 ~ 0.47μF 25V 之電容。

註 4：類比輸出請與其他電源線隔離。

註 5：如果配線受雜訊干擾，造成負載之輸出端漣波太大，請連接 0.1 ~ 0.47μF 25V 之電容。

註 6：請將電源模組之 ⏚ 端及類比信號輸出模組之 ⏚ 端連接到系統接地點，再將系統接點作第三種接地或接到配電箱之機殼上。

❷ 規格

混合（06XA）模組 類比/數位（AD）部份	電壓輸入	電流輸入
電源電壓	24VDC（20.4VDC ~ 28.8VDC）(-15% ~ +20%)	
類比訊號輸入通道	4 通道/台	
類比輸入範圍	±10V	±20mA
數位轉換範圍	±2,000	±1,000
解析度	12 bits（1_{LSB}=5mV）	11 bits（1_{LSB}=20μA）
DVP06XA-S 輸入阻抗	200KΩ	250Ω
DVP06XA-S2 輸入阻抗	≧1MΩ	250Ω
總和精密度	±0.5%在（25°C · 77°F）範圍內滿刻度時。 ±1%在（0 ~ 55°C · 32 ~ 131°F）範圍內滿刻度時。	
響應時間	3ms × 通道數	
隔離方式	DVP06XA-S 類比與數位間共地，無隔離。 DVP06XA-S2 類比與數位端使用光耦合器隔離，類比通道間未隔離。	
絕對輸入範圍	±15V	±32mA
數位資料格式	16 位元二補數	
平均功能	有（CR#2 ~ CR#5 可設定，範圍 K1 ~ K20）	
自我診斷功能	上下極限偵測/通道	
混合（06XA）模組 類比/數位（DA）部份	電壓輸出	電流輸出
類比訊號輸出通道	2 通道/台	
類比輸出範圍	0 ~ 10V	0 ~ 20mA
數位資料範圍	0 ~ 4,000	0 ~ 4,000
解析度	12 bits（1_{LSB}=2.5mV）	12 bits（1_{LSB}=5μA）
總和精密度	±0.5%在（25°C · 77°F）範圍內滿刻度時。 ±1%在（0 ~ 55°C · 32 ~ 131°F）範圍內滿刻度時。	
輸出阻抗	0.5Ω or 更低	
響應時間	3ms × 通道數	
最大輸出電流	10mA（1KΩ ~ 2MΩ）	-
容許負載阻抗	-	0 ~ 500Ω
數位資料格式	16 位元二補數	
隔離方式	DVP06XA-S 類比與數位間共地，無隔離。	

DVP06XA-S2