

DVP04AD-H2

Instruction Sheet 安裝說明 安裝说明

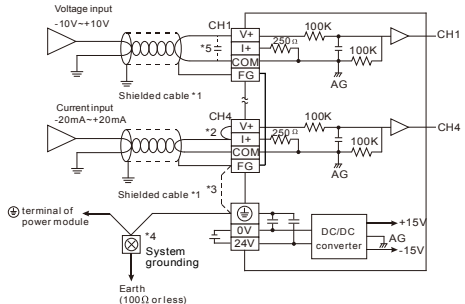
Analog Input Module

類比輸入模組

模拟输入模块



External Wiring



- *1. When performing analog input, please isolate other power wirings.
*2. If current is connected, the connection between V+ and I+ need to be a short circuit.
*3. If there is much noise, please connect the terminal FG to the ground terminal.
*4. Please connect the terminal on both the power modules and DVP04AD-H2 to the system earth point and ground the system contact or connect it to the cover of power distribution cabinet.
*5. If the ripple voltage of the input terminal of the load connected is large, and results in interference with the wiring, please connect a 0.1~0.47 μF and 25 V capacitor.

Specifications

Table with 3 columns: Analog/Digital (4A/D) module, Voltage input, Current input. Rows include Power supply voltage, Analog input channel, Range of analog input, Range of digital conversion, Resolution, Input impedance, Overall accuracy, Responding time, Isolation, Range of absolute input, Digital data format, Average function, Self-diagnosis, Communication mode (RS-485), and When connected to DVP-PLC MPU in series.

Other Specifications

Table with 2 columns: Power supply, Environment, Operation/storage, and Vibration/shock immunity. Rows include Max. rated power consumption, Operation: 0°C ~ 55°C (temperature); 5 ~ 95% (humidity); pollution degree 2, Storage: -25°C ~ 70°C (temperature); 5 ~ 95% (humidity), and International standards: IEC 61131-2, IEC 68-2-6 (TEST Fc)/IEC 61131-2 & IEC 68-2-27 (TEST Ea).

Control Registers

Table with 10 columns: CR #, RS-485 parameter address, Latched, Register content, b15, b14, b13, b12, b11, b10, b9, b8, b7, b6, b5, b4, b3, b2, b1, b0. Rows include Model name, Input mode setting, Average of input signals at CH1 ~ CH4, Present value of input signals at CH1 ~ CH4, and Adjusted OFFSET/GAIN values for CH1-CH4.

Warning

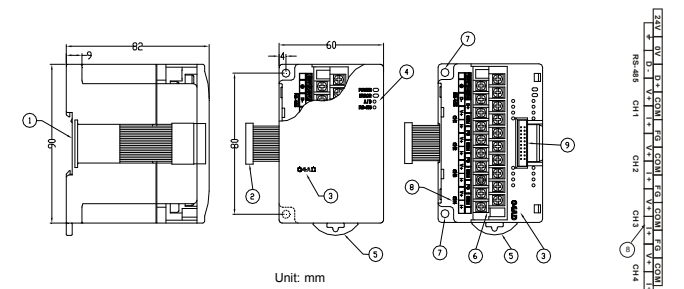
EN DVP04AD-H2 is an OPEN-TYPE device. It should be installed in a control cabinet free of airborne dust, humidity, electric shock and vibration. To prevent non-maintenance staff from operating DVP04AD-H2, or to prevent an accident from damaging DVP04AD-H2, the control cabinet in which DVP04AD-H2 is installed should be equipped with a safeguard. For example, the control cabinet in which DVP04AD-H2 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 DVP04AD-H2 is powered up. After DVP04AD-H2 is disconnected, DO NOT touch any terminals in a minute. Make sure that the ground terminal on DVP04AD-H2 is correctly grounded in order to prevent electromagnetic interference.
FR DVP04AD-H2 est un module OUVERT. Il doit être installé que dans une enceinte protectrice (boîtier, 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 nécessaires pour ouvrir la protection).
FR Ne pas appliquer la tension secteur sur les bornes d'entrées/Sorties, ou l'appareil DVP04AD-H2 pourra être endommagé. Merci de vérifier encore une fois le câblage avant la mise sous tension du DVP04AD-H2. Lors de la déconnexion 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.

Introduction

Model Explanation and Peripherals

- Thank you for choosing Delta DVP series PLC. DVP04AD-H2 is able to receive 4 points of analog input signals (voltage or current) and convert them into 14-bit digital signals. Besides, through FROM/TO instructions in DVP-EH2 MPU program, the data in DVP04AD-H2 can be read or written. There are 49 16-bit control registers (CR) in DVP04AD-H2.
You can select voltage or current output by wiring. Range of voltage output: ±10V DC (resolution: 1.25mV). Range of current output: ±20mA (resolution: 5μA).

Product Profile (Indicators, Terminal Block, I/O Terminals)

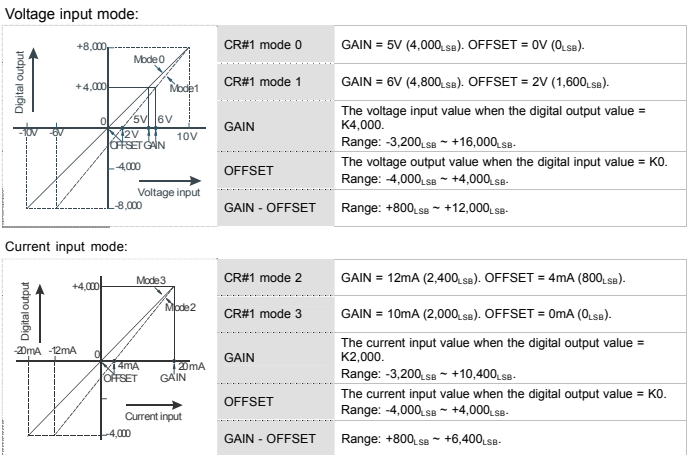


- 1 DIN rail (35mm)
2 Connection port for extension modules
3 Model name
4 POWER, ERROR, A/D indicator
5 DIN rail clip
6 Terminals
7 Mounting hole
8 I/O terminals
9 Mounting port for extension modules

Table with 10 columns: CR #, RS-485 parameter address, Latched, Register content, b15, b14, b13, b12, b11, b10, b9, b8, b7, b6, b5, b4, b3, b2, b1, b0. Rows include Error status, Communication address setting, Communication speed (baud rate) setting, and Returning to default setting.

CR#0 ~ CR#34: The corresponding parameter addresses H'4032 ~ H'4022 are for users to read/write data by RS-485 communication. When using RS-485, the user has to separate the module with MPU first.
a. Communication baud rate: 4,800/9,600/19,200/38,400/57,600/115,200 bps.
b. Modbus ASCII/RTU communication protocols: ASCII data format (7-bit, even bit, 1 stop bit (7, E, 1)); RTU data format (8-bit, even bit, 1 stop bit (8, E, 1)).
c. Function: H'03 (read register data); H'06 (write 1 word datum to register); H'10 (write many word data to register).
d. Latched CR should be written by RS-485 communication to stay latched. CR will not be latched if written by MPU through TO/DTO instruction.

Adjusting A/D Conversion Curve



The user can adjust the OFFSET/GAIN curves according to the actual needs by changing the OFFSET value (CR#18 ~ CR#21) and GAIN value (CR#24 ~ CR#27).

注意事項

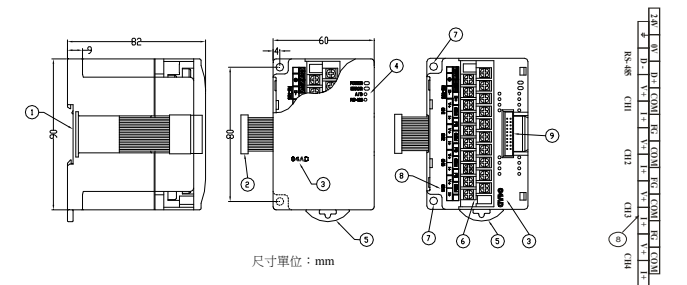
- 請在使用之前，詳細閱讀本使用說明書。
實施配線，務必關閉電源。
本機為開放型 (OPEN TYPE) 機殼，因此使用者使用本機時，必須將之安裝於具防塵、防潮及免於電擊/衝擊意外之外殼配線箱內，另必須具備保護措施 (如：特殊之工具或鑰匙才可打開) 防止非維護人員操作或意外衝擊本體，造成危險及損壞。
輸入電源不可連接於輸入/輸出端，否則可能造成嚴重的損壞，因此請在上電之前再次確認電源配線。
請勿在上電時期損任何端子。輸入電源切斷後，一分鐘之內，請勿觸摸內部電路。
本體上之接地端子 務必正確的接地，可提高產品抗雜訊能力。

產品簡介

說明及週邊裝置

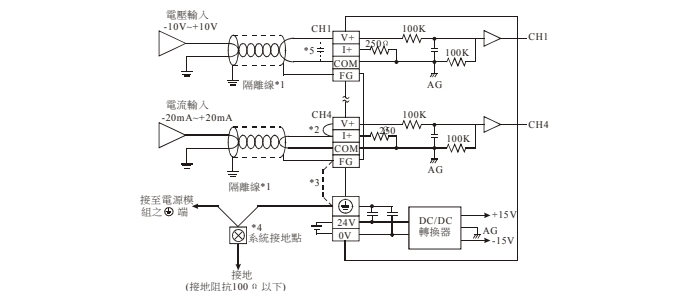
- 謝謝您採用台達 DVP 系列產品。DVP04AD-H2 類比信號輸入模組可接受外部 4 點類比信號輸入 (電壓或電流皆可)，經由轉換成 14 位元之數位信號，透過 DVP-EH2 系列主機程式以指令 FROM/TO 來讀寫模組內之資料，模組內具有 49 個 CR (Control Register) 暫存器，每個暫存器有 16 bits。
使用者可經由配線選擇電壓輸入或電流輸入，電壓輸入範圍 ±10V DC (解析度為 1.25mV)，電流輸入範圍 ±20mA (解析度為 5μA)。

產品外觀及各部介紹



- 1 DIN 軌槽 (35mm)
2 擴充機/擴充模組連接口
3 機種名稱
4 電源、錯誤及轉換指示燈
5 DIN 軌固定扣
6 端子
7 固定孔
8 端子配置
9 擴充機/擴充模組連接座

外部配線



- 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+端子請務必短路。
註*3: 如果雜訊過大，請將 FG 及接地端子連接。
註*4: 請將電源模組之端子及 DVP04AD-H2 類比信號輸入模組之端子連接於系統接地點，再將系統接地點接地或接到配電箱之機殼上。
註*5: 如果負載之輸入端邊波太大造成配線受雜訊干擾時，請連接 0.1 ~ 0.47μF 25V 之電容。

規格

Table with 3 columns: Analog/Digital (4A/D) 模組, 電壓輸入, 電流輸入. Rows include 電源電壓, 類比訊號輸入通道, 類比輸入範圍, 數位轉換範圍, 解析度, 輸入阻抗, 總和精密度, 響應時間, 隔離方式, 絕對輸入範圍, 數位資料格式, 平均功能, 自我診斷功能, and 通訊模式 (RS-485).

