Analog Outputs Units CS1W-DA041/DA081/DA08C

Specifications

Item		CS1W-DA041	CS1W-DA08V	CS1W-DA08C
Applicable PLC model		CS series		
Unit type		CS1 Special I/O Unit		
Isolation *1		Between I/O and PLC signals: Photocoupler (No isolation between individual I/O signals.)		
External terminals		21-point detachable terminal block (M3 screws)		
Power consumption		130 mA max. at 5 VDC, 180 mA max. at 26 VDC	130 mA max. at 5 VDC, 180 mA max. at 26 VDC	130 mA max. at 5 VDC, 250 mA max. at 26 VDC
Dimensions (mm) *2		35 × 130 × 126 (W × H × D)		
Weight		450 g max.		
General specifications		Conforms to general specifications for SYSMAC CS-series Series.		
Mounting position		CS-series CPU Rack or CS-series Expansion Rack (Cannot be mounted to a C200H Expansion I/O Rack or a SYSMAC BUS Slave Rack.)		
Maximum number of Units		Depends on the Power Supply Unit. *3		
Data exchange with CPU Units *4		Special I/O Unit Area CIO 200000 to CIO 295915 (Words CIO 2000 to CIO 2959)		
		Internal Special I/O Unit DM Area (D20000 to D29599)		
Output specifications	Number of analog outputs	4	8	8
	Output signal ranges *5	1 to 5 V/4 to 20 mA 0 to 5 V 0 to 10 V −10 to 10V	1 to 5 V 0 to 5 V 0 to 10 V −10 to 10 V	4 to 20 mA
	Output impedance	0.5 Ω max. (for voltage output)		
	Max. output current (for 1 point)	12 mA (for voltage output)		
	Maximum permissible load resistance	600 Ω (current output) *9	–	600 Ω (current output) *8
	Resolution	4,000 (full scale)		
	Set data	16-bit binary data		
	Accuracy *6	23±2°C: Voltage output: ±0.3% of full scale Current output: ±0.5% of full scale 0°C to 55°C: Voltage output: ±0.5% of full scale Current output: ±0.8% of full scale		
	D/A conversion time *7	1.0 ms/point max.		
Output functions	Output hold function	Outputs the specified output status (CLR, HOLD, or MAX) under any of the following circumstances. When the Conversion Enable Bit is OFF. *8 In adjustment mode, when a value other than the output number is output during adjustment. When there is an output setting error or a fatal error occurs at the PLC. When the CPU Unit is on standby. When the Load is OFF.		

*1. Do not apply a voltage higher than 600 V to the terminal block when performing withstand voltage test on this Unit.
*2. Refer to *Dimensions* on page 20 for details on the Unit's dimensions.
*3. Maximum Number of Units

Power Supply Unit	CS1W-DA041/08V	CS1W-DA08C
C200HW-PA204 C200HW-PA204S C200HW-PA204R C200HW-PD024	3 Units max.	2 Units max.
C200HW-PA209R	7 Units max.	5 Units max.

The maximum number of Units that can be mounted to one Rack varies depending on the current consumption of the other Units mounted to the Rack and may be less than the number shown in the above table.

*4. Data Exchange with CPU Units

Special I/O Unit Area CIO 200000 to CIO 295915 (Words CIO 2000 to CIO 2959)	Exchanges 10 words of data per Unit.	CPU Unit to Analog Output Unit	Analog output setting data Conversion Enable Bit
		Analog Output Unit to CPU Unit	Alarm flags
Internal Special I/O Unit DM Area (D20000 to D29599)	Transmits 100 words of data per Unit at power-up or when the Unit is restarted.	CPU Unit to Analog Output Unit	Output signal conversion enable/disable, output signal range setting Output status for output hold

*5. Output signal ranges can be set for each output.
*6. The accuracy is given for full scale. For example, an accuracy of ±0.3% means a maximum error of ±12 (BCD).
*7. D/A conversion time is the time required for converting and outputting the PLC data. It takes at least one cycle for the data stored in the PLC to be read by the Analog Output Unit.
*8. When the operation mode for the CPU Unit is changed from RUN mode or MONITOR mode to PROGRAM mode, or when the power is turned ON, the Output Conversion Enable Bit will turn OFF. The output status specified according to the output hold function will be output.
*9. The load resistance is adjusted to 250 Ω at the factory. Always adjust the offset gain before application when the load resistance is not 250 Ω. The CS1W-DA041 is adjusted for current outputs (load resistance: 250 Ω) at the factory. Adjust the offset gain before application when using voltage outputs.