DeviceNet Series Products

PWM Module of DeviceNet Slave

CAN-2088D

Dimensions

CE FC

107.0

nnn

Unit: mm

77.5

PWM (Pulse width modulation) is a powerful technique for controlling analog circuits. By using digital outputs, it can generate a waveform with variant duty cycle and frequency to control analog circuits. CAN-2088D, a CAN bus remote I/O modules with DeviceNet protocol, provides 8 PWM output channels and 8 digital inputs channels with high-speed counter function. It can be used to develop practical and economical analog control systems in the DevicdNet network.

Features

- Hardware-controlled PWM output
- PWM output frequency: 0.2 Hz ~ 500 kHz with 0.1%~99.9% duty cycle
- PWM Output Modes: software trigger / hardware trigger
- Trigger each PWM output individually or all PWM outputs synchronously
- Support Burst output mode and Continue output mode
- Provide 32-bit 500 kHz high-speed counter for each DI channel
- Pass the validation of DeviceNet conformance test
- Provide EDS file for DeviceNet master interface

Internal I/O Structure



I/O Pin & Wire Connection					
Terminal	No.	Pin Assignment	Output Type	ON State LED ON Readback as 1	OFF State LED OFF Readback as 0
	01	PO.0		Relay On	Relay Off
_ n (02	P0.1	Drive Relay	mark	
0 0 (03	PO.2			
La (04	PO.3			
l'	05	PO.4	Resistance Load		
(¹ •)	06	PO.5			
L.	07	PO.6			
[a	08	PO.7			
lí o (09	PO.GND	Input Type	ON State LED ON	OFF State LED OFF
۲ a (10	PO.GND	input i jpo	Readback as 1	Readback as 0
[~]	11	DIA	Relay	Itelay OII	Reidy Off
		DI.0	ricitay		
	12	DI.1	Contact	* □⊖ DI X Relay Close □⊖ DI .GND	* DI X Relay Open DI X DI.GND
	12 13	DI.0 DI.1 DI.2	Contact	Voltage > 10 V	* Relay Open □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □
	12 13 14	DI.1 DI.2 DI.3	Contact TTL/CMOS Logic	Voltage > 10 V	Voltage < 4 V
	12 13 14 15	DI.0 DI.1 DI.2 DI.3 DI.4	Contact TTL/CMOS Logic	Areary Close Conserver Conserv	Area Collector Off Collector Off
	12 13 14 15 16	DI.0 DI.1 DI.2 DI.3 DI.4 DI.5	TTL/CMOS Logic	Loge Prever Loge Prever	Voltage < 4 V Loge Power Comparison Loge Loge Loge Loge Comparison Loge Loge Loge Loge Comparison Loge Comparison Comparison DI X Loge Dost DI X Loge Dost DI X DI SND DI S
	12 13 14 15 16 17	DI.0 DI.2 DI.3 DI.4 DI.5 DI.6	Contact TTL/CMOS Logic NPN Output	Log Power Control Power Log Power Control Power Log Power Control Power Log Power Control Power Log Power Control Po	* □ DIX Buldy Open DL GND Voltage < 4 V Loge Power □ Disperied □
	12 13 14 15 16 17 18	DI.0 DI.2 DI.2 DI.3 DI.4 DI.5 DI.6 DI.7	TTL/CMOS Logic NPN Output	Log Power Relay Close Dependent of the second se	Image: Select of the selec
	12 13 14 15 16 17 18 19	DI.0 DI.2 DI.2 DI.3 DI.4 DI.5 DI.6 DI.7 DI.GND	Nenay Contact TTL/CMOS Logic NPN Output	Image: Description of the second	Image: Select constraints Image: Select constraints Voltage < 4 V Loge Power Image: Select constraints Upge: Power Image: Select constraints Open Collector Off Image: Select constraints Open Collector Off Image: Select constraints Open Collector Off Image: Select constraints

CAN Pin & Baud Rate Rotary





Hardware Specifications

CAN Interface				
DeviceNet Specification	Volume I, Release 2.0 & Volume II, Release 2.0, Errata 5			
DeviceNet subscribe	Group 2 Only Server			
Connection supported	1 connection for Explicit Messaging 1 connection for Polled I/O 1 connection for Bit-Strobe I/O			
Node ID	0~63 selected by rotary switch			
Baud Rate (bps)	125 kbps, 250 kbps, 500 kbps			
Heartbeat message	Yes			
Shutdown message	Yes			
Terminator Resistor	Switch for 120 Ω terminator resistor			
PWM Interface				
Channels	8 (Source)			
Output Max. Load Current	1 mA			
Frequency Range	$0.2 \text{ Hz} \sim 500 \text{ kHz}$ (non-continuous, the min. units of the high/low level signal is 1 us)			
PWM Mode	Continue mode, Burst mode, Hardware trigger mode, Software trigger mode			
ESD Protection	4 kV Contact for each channel			
DI Interface				
Channels	8 (Sink)			
Counter Frequency	32-bit, 500 kHz Max.			
LED				
Round LED	PWR LED, NET LED, MOD LED			
I/O LED	8 LEDs as PWM, 8 LEDs as Digital Input, and 1 LED as terminal resister indicator			
Power				
Input range	Unregulated $+10 \sim +30 V_{DC}$			
Power Consumption	3.5 W			
Mechanism				
Installation	DIN-Rail			
Dimensions	32.3 mm x 99 mm x 77.5 mm (W x L x H)			
Environment				
Operating Temp.	$-25 \sim +75$ °C			
Storage Temp.	$-30 \sim +80$ °C			
Humidity	10 ~ 90% RH, non-condensing			

Application



Ordering Information

CAN-2088D

DeviceNet module of 8-channel PWM and 8-channel DI with high-speed counters