

# CNET Hardware Reference Manual



16CHANNEL DIGITAL INPUT/OUTPUT MODULE

cnD16-16

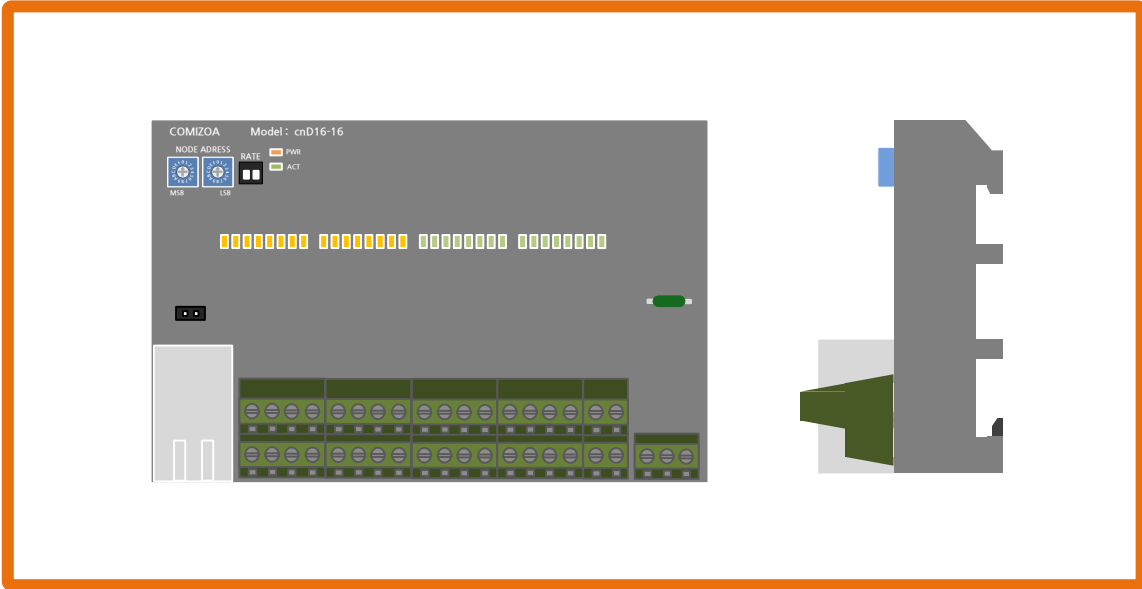
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**개요**

**CNET Series - cnD16-16 (Digital NPN Input 16ch / Output 16ch)**

cnD16-16은 커미조아의 CNET 기반 제어기의 32채널 Digital 입출력 모듈입니다.  
 각 채널의 내부 제어신호와 외부 입출력 신호는 포토커플러를 사용하여 절연됩니다.  
 본 매뉴얼은 cnD16-16의 하드웨어 구성과 기능에 대해 설명하는 하드웨어 매뉴얼입니다.  
 CNET 시스템의 전반적인 내용은 CNET product System reference 매뉴얼을 참조 바랍니다.

**제품사양**
**▣ Digital Input Specification**

ITEM	Details
Number of Inputs	Isolated 16 Input
Input type	Current sinking type (NPN)
Input Level Tolerant	Low (Min. 0V ~ Max 1.5V)
	High (Min. 5V ~ Max 24V)
Isolation	1000V Channel to Channel
Input Impedance	3.6 KOhm

**▣ Digital Output Specification**

ITEM	Details
Number of Outputs	16 output
Output Type (Module)	MOSFET with common ground(NPN)
Isolation	Photo-coupler(Viso=3,000Vrms)
OFF State Current	Max. 100uA / Point
On State Max Sink Current	Max. 500mA / Point
Rds(On state resistance)	Max. 0.5Ω (±5%)
Over-Temperature Shutdown	160°C
Over-Current Shutdown	0.7A (Min.) ~ 2A (Max.)

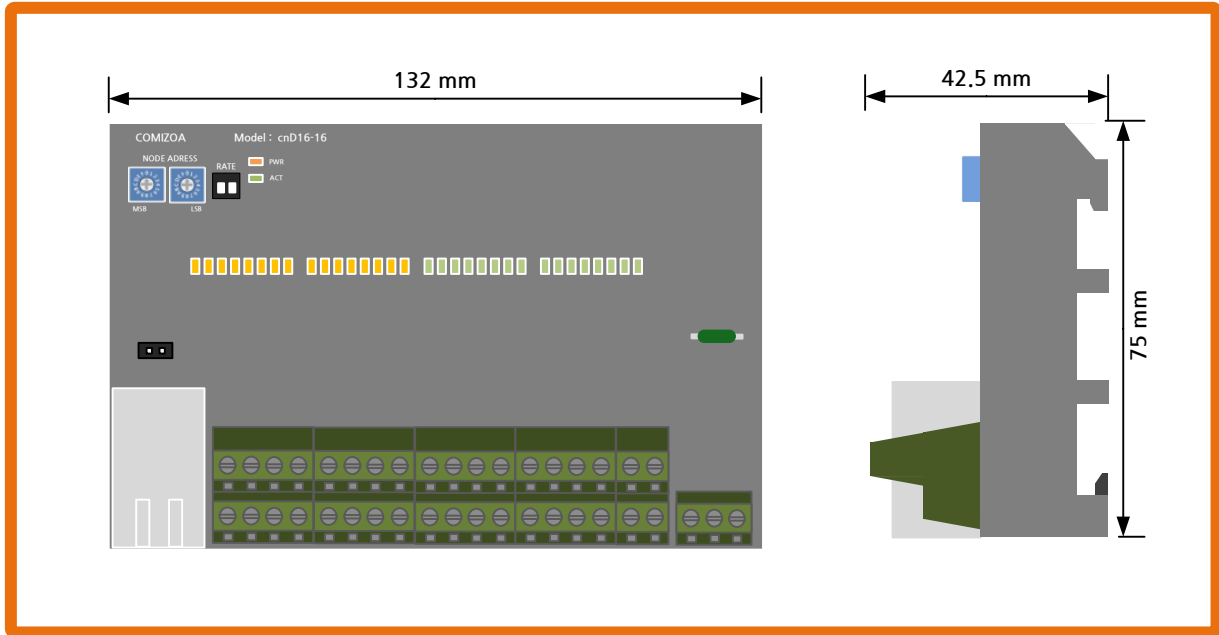
**▣ Power Specification**

ITEM	Details
Power Dissipation	120mA @ 24V DC
Rated Input Voltage	24 V DC (-15%/+20%, ripple ratio within 5%) EN 61131-2

**▣ Environmental Specification**

ITEM	Details
Dimension	75 * 132 * 42.5 (mm)
Install	Industrial DIN rail
Operating Temperature Range	0°C ~ 50°C
Storage Temperature Range	-20°C ~ 80°C
Operating Humidity Range	5% ~ 90%RH, non-condensing
Storage Humidity Range	5% ~ 90%RH, non-condensing

제품사양



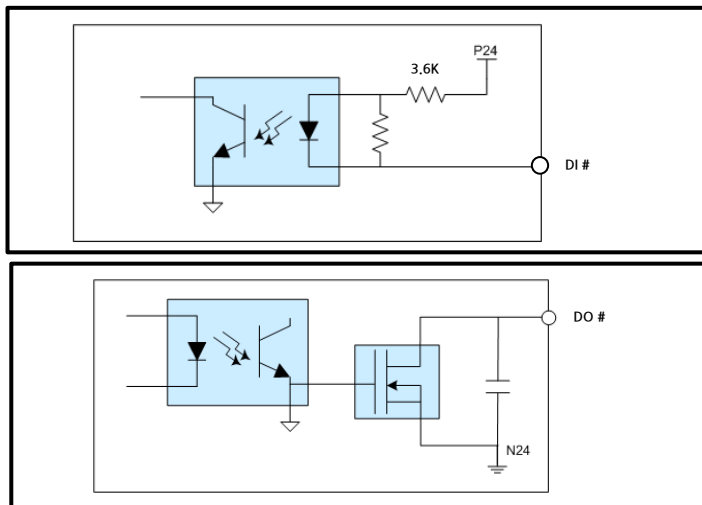
Dimension

Wiring

RJ45 Connector

P1		P2	
1	NC	1	NC
2	NC	2	NC
3	RS485_D+	3	RS485_D+
4	NC	4	NC
5	NC	5	NC
6	RS485_D-	6	RS485_D-
7	NC	7	NC
8	NC	8	NC

Circuit Diagram

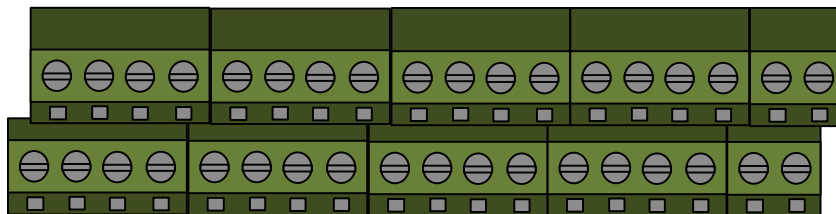


PIN MAP

PWR 0, 1


P	PWR 24V
N	PWR 0V
G	PWR 0V

Ch 0 ~ 31




DO 08	DO 09	DO 10	DO 11	DO 12	DO 13	DO 14	DO 15	N24	DI 08	DI 09	DI 10	DI 11	DI 12	DI 13	DI 14	DI 15	N24
DO 00	DO 01	DO 02	DO 03	DO 04	DO 05	DO 06	DO 07	COM	DI 00	DI 01	DI 02	DI 03	DI 04	DI 05	DI 06	DI 07	VDD


**Device ID Setting**

 MSB    LSB	<b>NODE ID setting</b>	MSB(1:0) * 16 + LSB
	<b>NODE ID range</b>	0 ~ 63

**Indicators**

			
<b>PWR</b>	SYSTEM POWER LED	ON	SYSTEM POWER(3.3V DC) ON
		OFF	SYSTEM POWER(3.3V DC) OFF
<b>ACT</b>	C-NET STATE LED	ON	C-NET COMMUNICATION ACTIVATE
		OFF	C-NET COMMUNICATION DEACTIVATE

**C-NET Baud Rate Setting**

 ON 1    2	11	2.5Mbps
	10	5Mbps
	01	10Mbps
	00	20Mbps

## Hardware Reference Manual Update List

No.	Version	Date	Changes in
1			
2	1.01	2016.03.04	글꼴변경 (나눔고딕, 굴림)



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