

ECS Hardware Reference Manual



4CHANNEL **ANALOG INPUT** MODULE

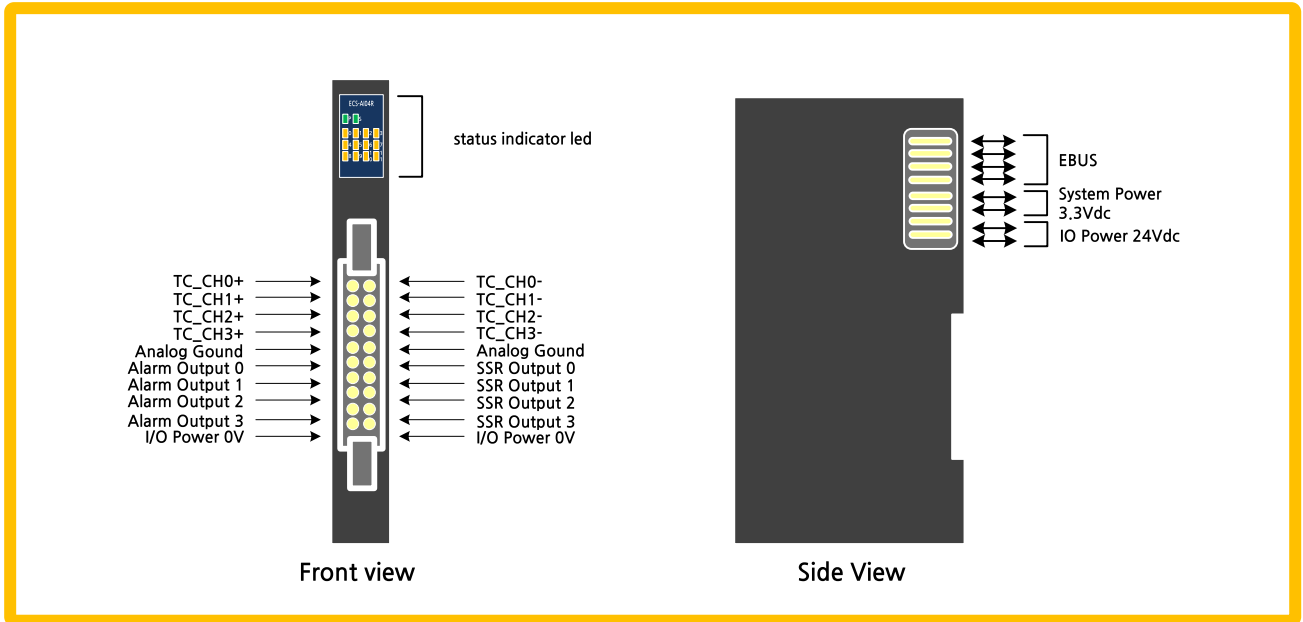
ECS-AI04T

FEB 2016
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개요

ECS Series - ECS-AI04T (TC Input 4ch)

ECS-AI04T는 EtherCAT 기반 제어기인 ECS Series의 4채널 TC 센서 입력 모듈입니다.

각 채널의 내부 제어신호와 외부 입출력 신호는 포토커플러를 사용하여 절연됩니다.

본 매뉴얼은 ECS-AI04T의 하드웨어 구성과 기능에 대해 설명하는 하드웨어 매뉴얼입니다.

제품사양
▣ Analog Specification

ITEM	ECS-AI04T
Number of Inputs	4 input
Input type	Single Ended
Resolution	24bit
TC Type	B, E, J, K, N, R, S and T-Type
Isolation	Non-isolated Between Channels I/O to Logic : Photo Coupler isolation(3KV)
Wiring contact	Ribbon Cable connector(HIF3B-20PA-2.54DS)

▣ Digital Specification

ITEM	ECS-AI04T
Number of Output	8 output(4 SSR output, 4 Alarm output)
Input type	NPN type, Photo-coupler(Viso=3,000Vrms)

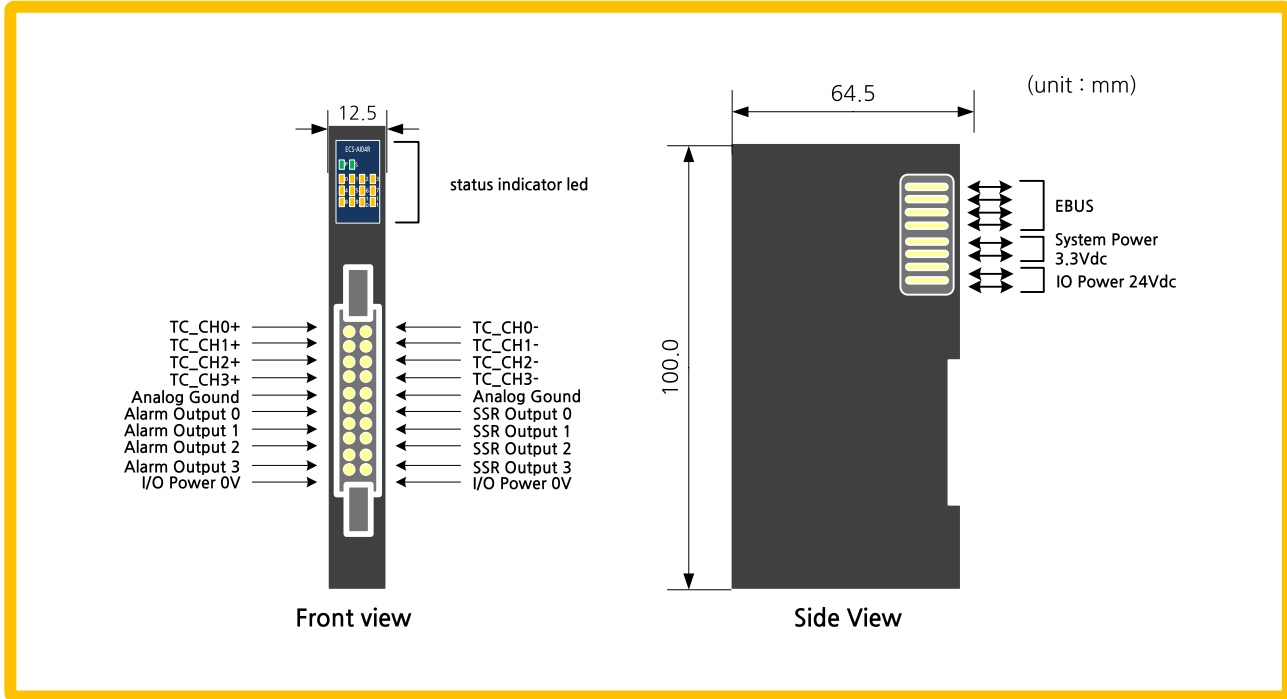
▣ Power Specification

ITEM	ECS-AI04T
Power Dissipation(System)	Max. 100mA @ 5.0V DC
Power Dissipation(I/O)	Max. 30mA @ 24.0V DC
Rated Input Voltage	24V DC (-15%/+20%, ripple ratio within 5%) EN 61131-2

▣ Environmental Specification

ITEM	ECS-AI04T
Dimension	65 * 100 * 12.5 (mm)
Install	Industrial DIN rail
Operating Temperature Range	0℃ ~ 50℃
Storage Temperature Range	-20℃ ~ 80℃
Operating Humidity Range	5% ~ 90%RH, non-condensing
Storage Humidity Range	5% ~ 90%RH, non-condensing

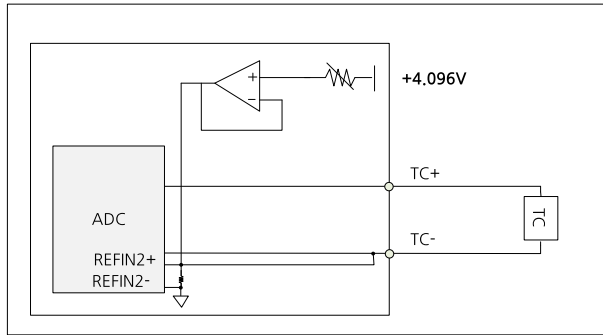
제품사양



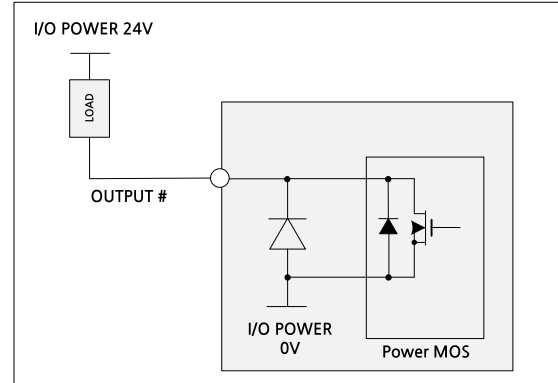
Dimension

Wiring

■ Circuit Diagram

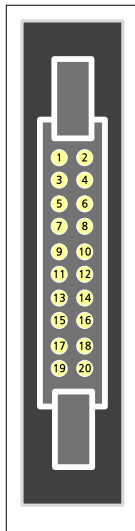


Analog Input



Digital Output

■ PIN MAP



1	TC_CH0+	2	TC_CH0-
4	TC_CH1+	4	TC_CH1-
5	TC_CH2+	6	TC_CH2-
7	TC_CH3+	8	TC_CH3-
9	Analog GND	10	Analog GND
11	Alarm Output #0	12	SSR Output #0
13	Alarm Output #1	14	SSR Output #1
15	Alarm Output #2	16	SSR Output #2
17	Alarm Output #3	18	SSR Output #3
19	I/O PWR 0V	20	I/O PWR 0V

Indicators



P	SYSTEM POWER LED	ON	SYSTEM POWER(5V DC) ON
		OFF	SYSTEM POWER(5V DC) OFF
S	EtherCAT AL STATE LED	OFF	INIT
		Blinking(slow)	PRE-OP
		Single Flash	SAFE-OP
		ON	OP
		Flickering(fast)	BOOTSTRAP
0-3	TC STATE LED	ON	TC CHANNEL ON
		OFF	TC CHANNEL OFF
4-15	OUTPUT STATE LED	ON	OUTPUT ON STATE (LOGIC `1`)
		OFF	OUTPUT OFF STATE (LOGIC `0`)

Hardware Reference Manual Update List

No.	Version	Date	Changes in
1			First Edition
2	1.01	2016.02.29	글꼴변경 (나눔고딕, 굴림)

ECS Reference Manual

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