

ECS Hardware Reference Manual



2CHANNEL RS422/485 MODULE

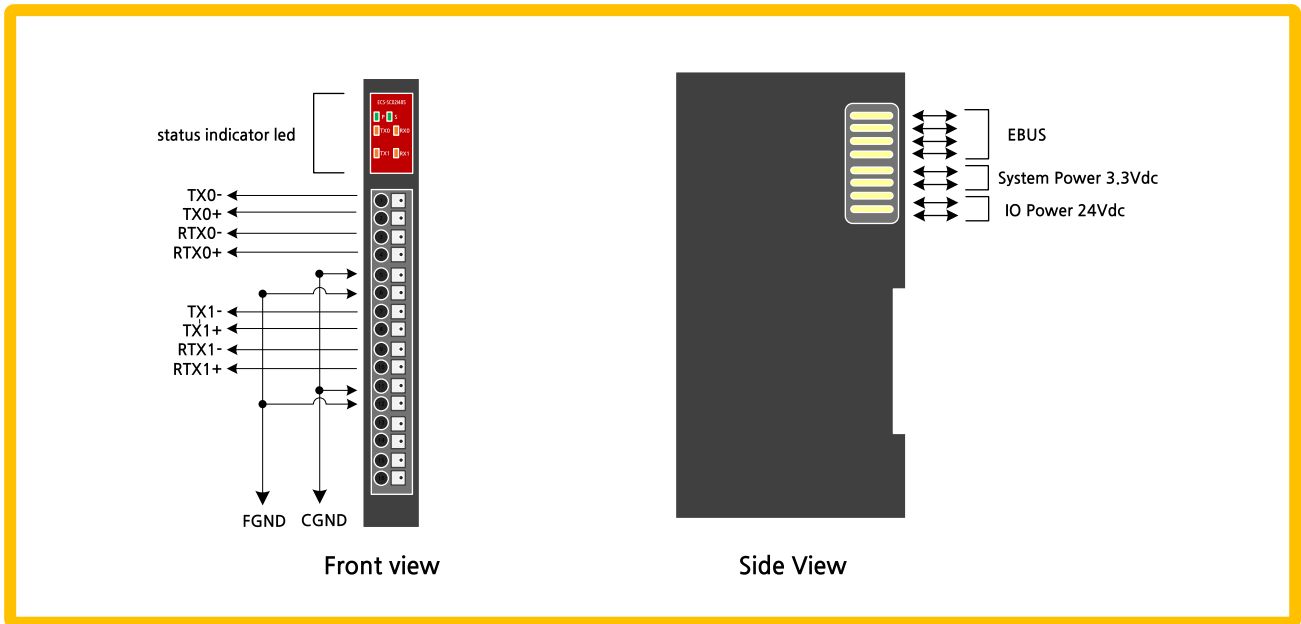
ECS-SC02I485

FEB 2016
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Hardware Manual Revision : 1.0.1
Revision Data 2016. 02. 29

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개요

ECS Series - ECS-SC02I485 (RS485 Serial Comm. 2ch)

ECS-SC02I485는 EtherCAT 기반 제어기인 ECS Series의 2채널 Serial 통신 모듈입니다.

각 채널의 내부 제어신호와 외부 입출력 신호는 ISOLATOR를 사용하여 절연됩니다.

본 매뉴얼은 ECS-SC02I485의 하드웨어 구성과 기능에 대해 설명하는 하드웨어 매뉴얼입니다.

제품사양
Serial Communication Specification

Item	Details
Number of channels	2 channels
Protocol	RS422/485
Isolation	Serial Channel to Logic : Digital Isolation (2.5kVrms for 1min)
Baud-rate	2400 ~ 38400 bps
Cable length	Approx. 1000m
Termination Resister	100Ω

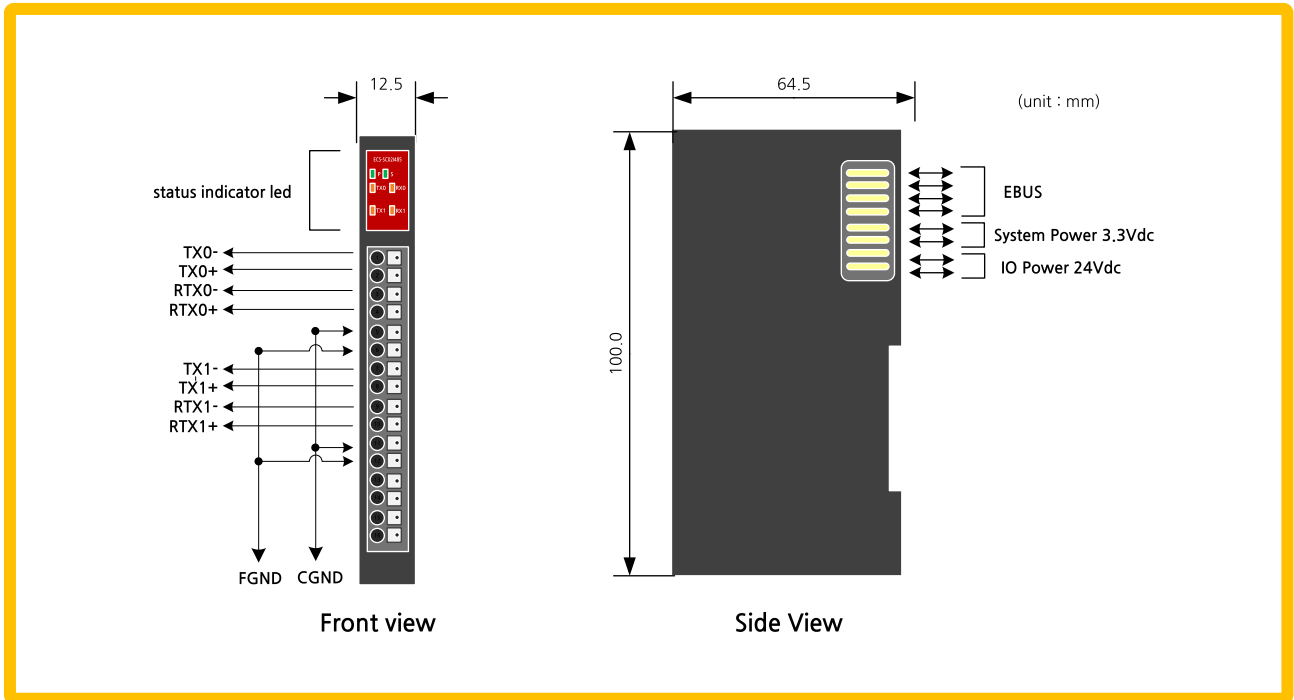
Power Specification

ITEM	Details
Power Dissipation(System)	100mA @ 3.3 V DC
Power Dissipation(I/O)	20mA @ 24.0 V DC
Rated Input Voltage	24V DC (-15%/+20%, ripple ratio within 5%) EN 61131-2

Environmental Specification

ITEM	Details
Dimension	65 * 100 * 25 (mm)
Install	Industrial DIN rail
Operating Temperature Range	0°C ~ 50°C
Storage Temperature Range	-20°C ~ 80°C
Operating Humidity Range	5% ~ 90%, non-condensing
Storage Humidity Range	5% ~ 90%, non-condensing

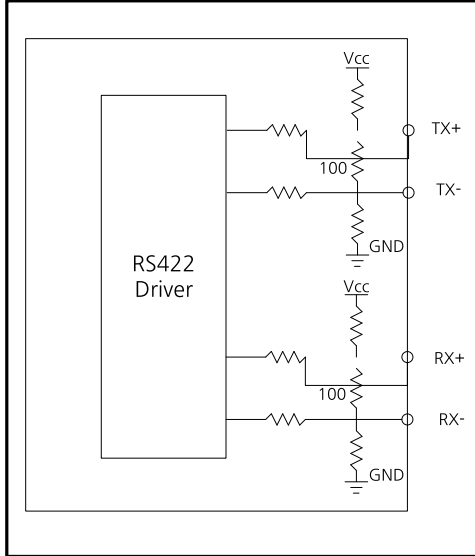
제품사양



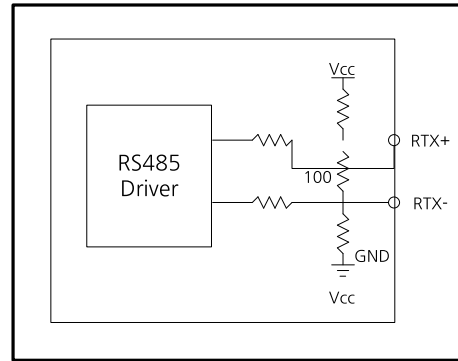
Dimension

Wiring

■ Circuit Diagram

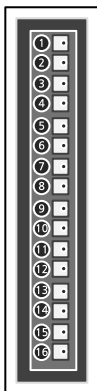


RS422 Communication Circuit



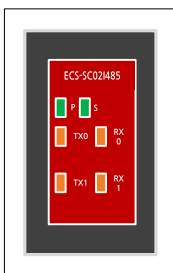
RS485 Communication Circuit

■ PIN MAP



1	TX0-
2	TX0+
3	RTX0-
4	RTX0+
5	CGND
6	FGND
7	TX1-
8	TX1+
9	RTX1-
10	RTX1+
11	CGND
12	FGND
13	NC
14	NC
15	NC
16	NC

Indicators



P	SYSTEM POWER LED	ON	SYSTEM POWER(3.3V DC) ON
		OFF	SYSTEM POWER(3.3V DC) OFF
S	EtherCAT AL STATE LED	OFF	INIT
		Blinking(slow)	PRE-OP
		Single Flash	SAFE-OP
		ON	OP
TX0, RX0, TX1, RX1	SERIAL COMM. STATE LED	Flickering(fast)	BOOTSTRAP
		ON	Communicating
		OFF	No Communicating

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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2016. 02. 29.



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