

Remote I/O 사용 방법

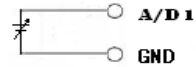
Remote I/O 사용 예)

I/O Cell 연결 방법

Remote I/O Control Command

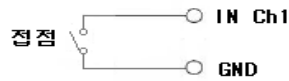
A/D 입력

- A/D 입력 범위 0 ~ 2.56V
- A/D 출력 범위 0 ~ 1023
- 분해능 10bit



Digital Input

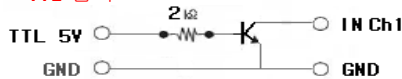
- 점접 입력



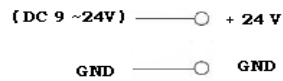
- 포토커플러 입력



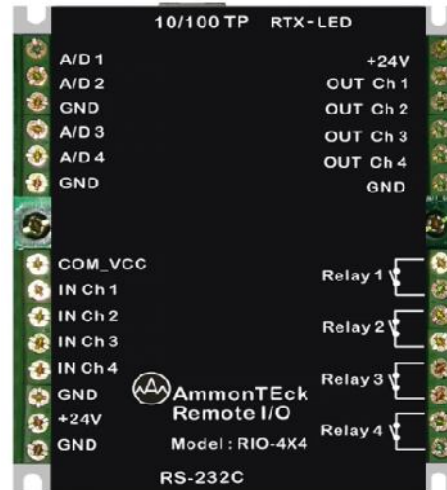
- TTL 입력



입력 전원

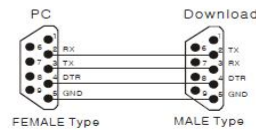


Remote I/O 사용 예



다운로드 케이블 연결

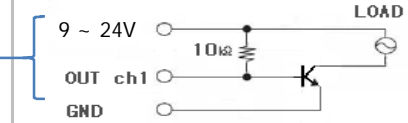
하위메이커	RS-232C
전송 속도	39200 bps
통신 방식	간 이송 방식
전송 거리	1km
전송 코드	Smart
데이터 전송 방식	(장치 비트 : 1)(패리티 : 없음)(데이터 비트 : 8)
데이터 전송 단서	RS232C에 준함
통신 방식	D-Sub 9P



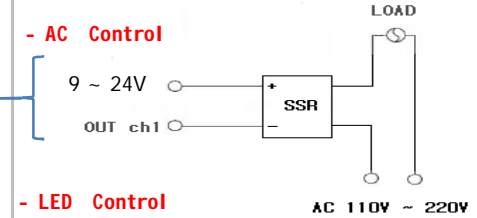
[다운로드 케이블]

Digital Out

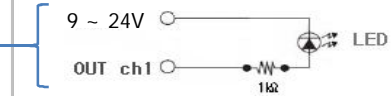
- TR 을 사용하여 전류 증폭



- AC Control

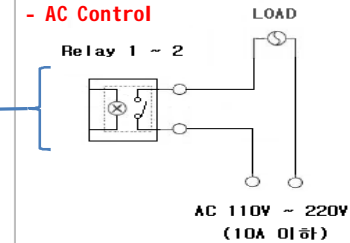


- LED Control

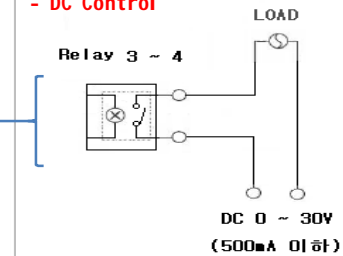


Relay Out

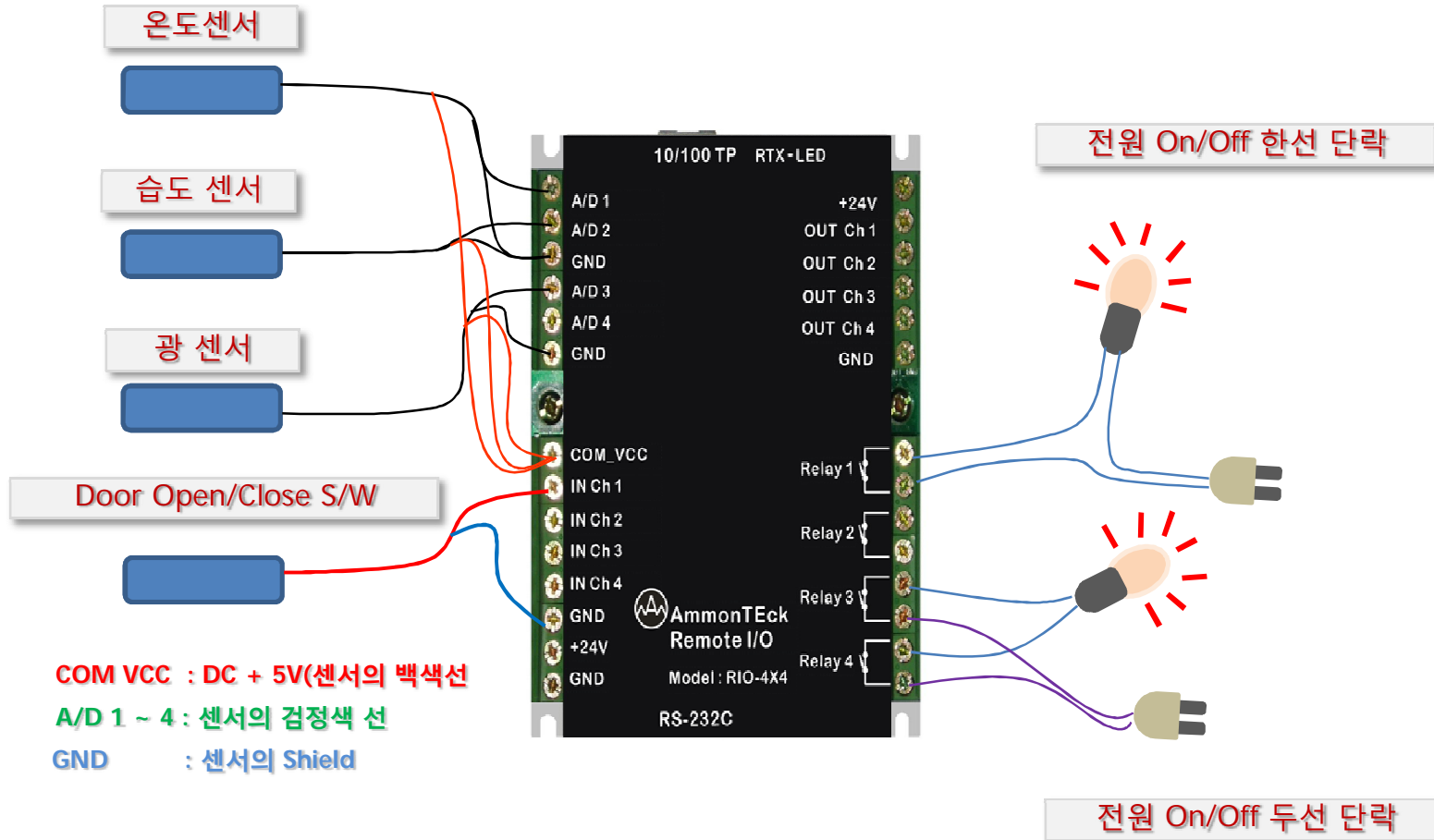
- AC Control



- DC Control



I/O Cell 연결 방법



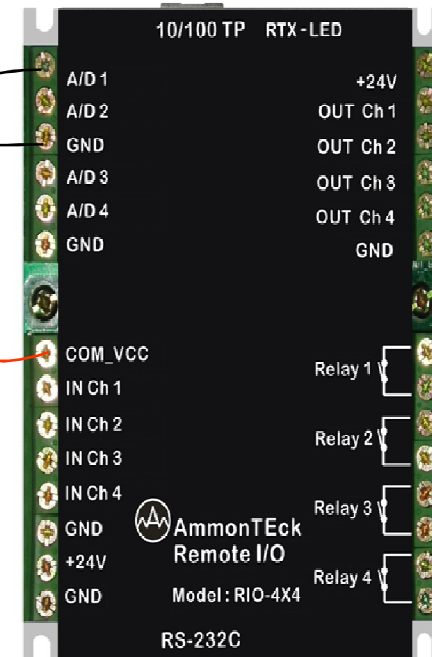
온도 센서 연결 및 프로그래밍

온도센서

온도센서 Specification.

Model : AMM-TEMP001

REMOTE I/O COM VCC 출력	DC +5V	
REMOTE I/O A/D 입력 범위	Analog	Digital
	0~ 2.56V	0 ~ 1023
	Analog : Digital	0.0025V : 1
온도 센서	사용 전압	DC +5V
	Measuring range	-40 ~ 125°C
	Analog INPUT range	0.1 ~ 1.75V
	Analog INPUT	0.1V = -40°C
		0.5V = 0°C
		1.75V = 125°C
	Digital OUTPUT range	40 ~ 700
온도 계산 공식	온도(°C) = (A/D OUTPUT * 0.0025) - 0.1 * 100 + (-40)	40 = -40 °C
		200 = 0°C
		700 = 125°C



COM VCC : DC + 5V(센서의 백색선)

A/D 1 ~ 4 : 센서의 검정색 선

GND : 센서의 Shield

습도 센서 연결 및 프로그래밍

습도센서

습도센서 Specification.

Model : AMM-HUM001

REMOTE I/O COM VCC 출력	DC +5V	
REMOTE I/O A/D 입력 범위	Analog	Digital
	0~ 2.56V	0 ~ 1023
	Analog : Digital	0.0025V : 1
습도 센서	사용 전압	DC +5V
	Measuring range	0 ~ 100%
	Analog INPUT range	0.4 ~ 1.95V
	Analog INPUT	0.4V = 0 % 1.95V = 100%
	Digital OUTPUT range	160 ~ 780
	Digital OUTPUT	160 = 0%
		470 = 50%
780 = 100%		
습도 계산 공식		
습도(%) = ((A/D OUTPUT * 0.0025) - 0.4) /1.55*100		



COM VCC : DC + 5V(센서의 백색선)

A/D 1 ~ 4 : 센서의 검정색 선

GND : 센서의 Shield

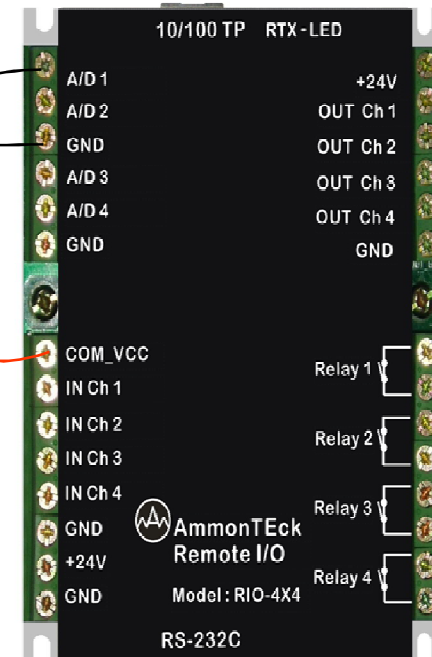
광 센서 연결 및 프로그래밍

광 센서

광센서 Specification.

Model : AMM-ILLU001

REMOTE I/O COM VCC 출력	DC +5V	
REMOTE I/O A/D 입력 범위	Analog	Digital
	0 ~ 2.56V	0 ~ 1023
	Analog : Digital	0.0025V : 1
광 센서	사용 전압	DC +5V
	Measuring range	0 ~ 640Lux
	Analog INPUT range	0 ~ 2.56V
	Analog INPUT	0.4V = 100Lux
		0.8V = 200Lux =
		2.56V = 640Lux
	Digital OUTPUT range	0 ~ 1023
조도 계산 공식	조도(Lux) = (Digital OUTPUT * 0.0025) / 1.6	160 = 100Lux
		320 = 200Lux
		1024 = 640Lux



COM VCC : DC + 5V(센서의 백색선)

A/D 1 ~ 4 : 센서의 검정색 선

GND : 센서의 Shield

* 광센서의 조도는 근사치이며 참고 자료로만 활용할 수 있습니다.

Remote I/O Control Command

Command Format

Command "O" *Command output*
Syntax: ":O" + "dr" + ASCII (12)

Parameters: "dr"

Command Options

- d Digital out Status (HEX code :0 ~ F)
CH1 :1, CH2:2, CH3:4, CH4:8
ex) 3 = CH1 + CH2
F = CH1+CH2+CH3+CH4
- r Relay out Status (HEX code :0 ~ F)
CH1 :1, CH2:2, CH3:4, CH4:8
ex) 3 = CH1 + CH2
F = CH1+CH2+CH3+CH4

Command "I" *command output*
Syntax: ":I" + ASCII (12)

Returns a status report

Syntax: "Iwwwxxxxyyyzzzffdr" + ASCII (12)

I Command

- www A/D CH1 (HEX code :0000 ~ FFFF)
- xxx A/D CH2 (HEX code :0000 ~ FFFF)
- yyy A/D CH3 (HEX code :0000 ~ FFFF)
- zzz A/D CH4 (HEX code :0000 ~ FFFF)
- ff Digital Input (HEX code :00 ~ 0F)
CH1 :1, CH2:2, CH3:4, CH4:8
ex) 5 = CH1 + CH3
F = CH1+CH2+CH3+CH4
- d Digital out Status (HEX code :0 ~ F)
CH1 :1, CH2:2, CH3:4, CH4:8
ex) C = CH3 + CH4
F = CH1+CH2+CH3+CH4
- r Relay out Status (HEX code :0 ~ F)
CH1 :1, CH2:2, CH3:4, CH4:8
ex) 3 = CH1 + CH2
F = CH1+CH2+CH3+CH4