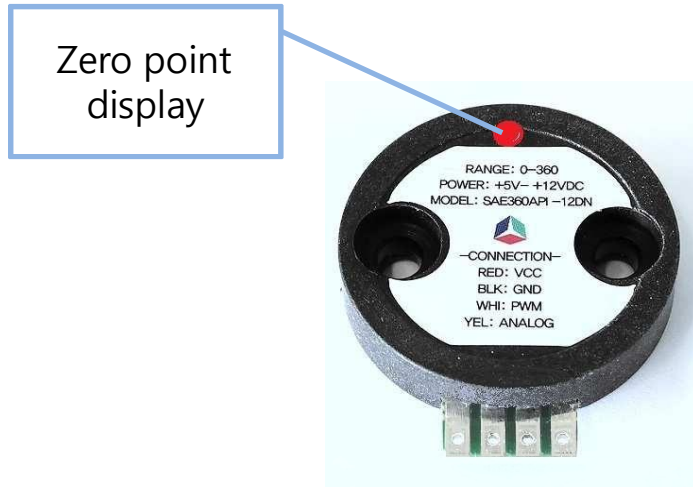


모델: SAE360API-12DN-XY 데이터 스위트
(Contactless)

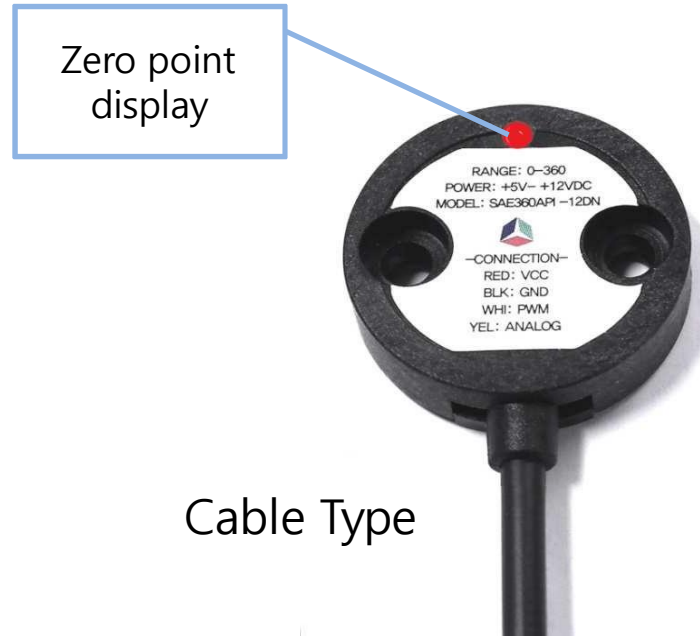


<http://www.sera.kr>

[Product View & Model]



PCB Type



Cable Type

SAE360API-12DN-XY(옵션)
X=P (PWM)
X=A (ANALOG)
Y=P (PCB)
Y=C (Cable)

[Zero Position]

이 기능을 이용하여 영점(0) 위치를 쉽게 찾을 수 있다.

- 1) 엔코더 설치 후 서서히 회전 시킨다.
- 2) 회전 방향의 포지션 위치에 따라 LED 밝기가 변한다.
- 3) LED 밝기 최대 또는 최소 상태가 영점(0) 위치다.



ZERO 위치 표시장치
(LED ON)

[Features]

- 고 정밀 회전 각 및 포지션 측정.
- 자기검출 방식 엡솔루트 형 로타리엔코더 .
- 다양한 인터페이스(PWM / ABI /Analog / SPI)
- 제로 위치 표시장치(제품 후면 LED ON)
- Contactless 방식의 반 영구적 수명.
- MXD6 재질의 견고한 Housing
- 역 극성 방지기능

[Specifications]

| 항목 | 사양 | 단위 | 참조1 | 참조2 |
|------------|-------------|------|---------|------------------|
| 사용전압 | +5 /+6~+12 | V | Voltage | |
| 소비전류 | ≒10 | mA | Ampere | |
| 출력모드 | 1)Digital | Puls | 고속모드 | ABI / SPI |
| | 2)Analog | V | 저속모드 | 1/2Position=2.5V |
| 출력해상도 | Max 14 | Bit | SPI | |
| 측정 범위 | 0~360(±180) | ° | 연속 측정 | |
| 측정회전 수 | Max 20,000 | rpm | ABI | |
| 직선 성 | 0.1 < | % | FS | Analog |
| 응답시간 | 50 < | us | | |
| Hysteresis | 0.1 < | % | FS | |
| 부하저항 | 10K > | Ω | | |

[Specifications]

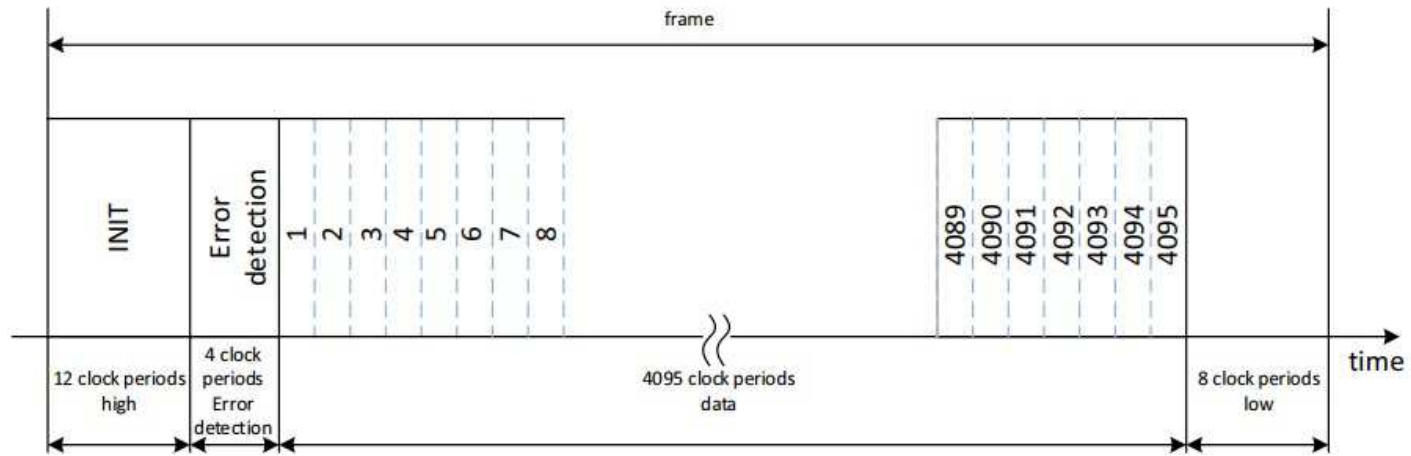
Environmental

| 항목 | 사양 | 단위 | 참조1 | 참조2 |
|-------|--|-----|-----|--------|
| 동작 온도 | -20~+100 | °C | | PBT 재질 |
| 보관온도 | -40~+150 | °C | | " |
| 무 게 | ≒3.3 | g | | " |
| 수 명 | Semi-permanent | Lfs | | " |
| 진동특성 | 200mm ² /s, 5-500hz, 10minutes, 3axis, 5times | | | " |
| 충격특성 | 1,000mm ² /s, 10ms, 3axis, 5times | | | " |
| E M S | 100V/m 200Mhz-1Ghz(ISO11452-2) | | | " |
| E S D | MAX±16(IEC61000-4-2)—Housing to Terminal | | | " |
| 방수등급 | IP65 | | | " |
| 재 질 | Housing: PA-MXD6 , Cable : PVC | | | |

[Application]

- 로봇(Robot)
- 모터(Motor)
- 기울기 센서(Tilt Sensor)
- 자이로 스코프(Gyroscopes)
- 장난감(Toy)
- 자동차(Automobile)
- 건설(Construction)
- 기계(Machine)
- 선박(Ship)
- 의료(Medical)
- 기타

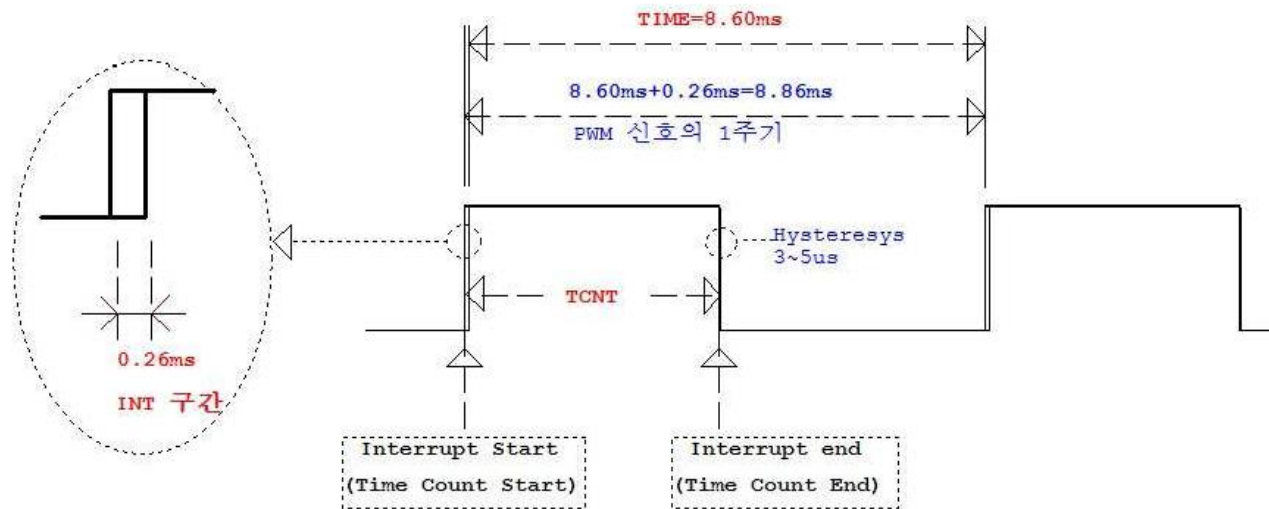
[PWM Signal 12bit Resolution]



[PWM Outputs Timing Chart (Program Reference)]

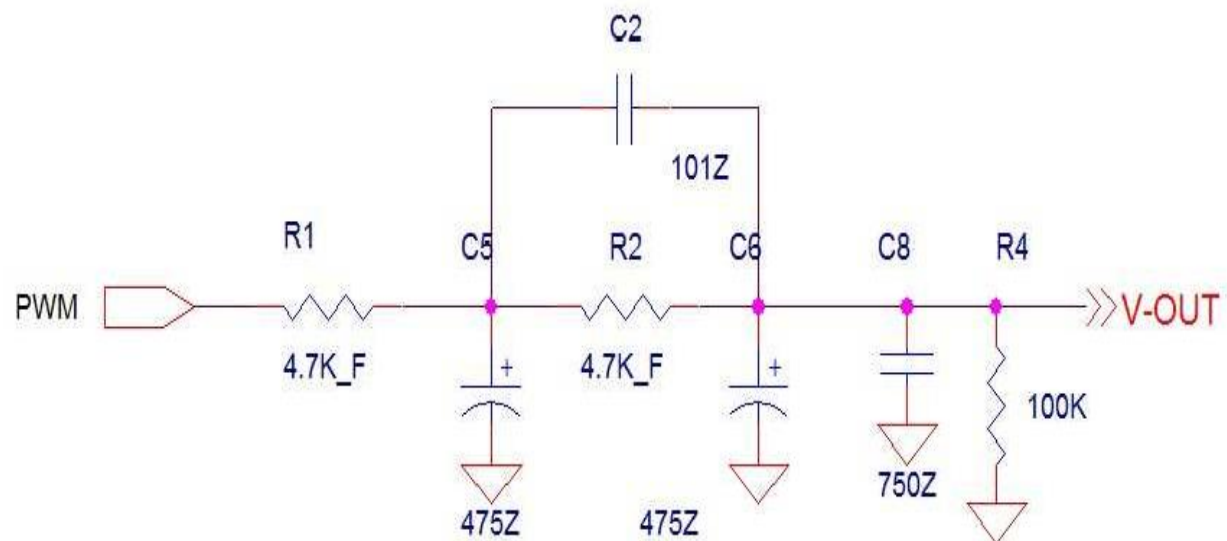
$$\text{측정 각도값} = ((\text{TIME} - (\text{TCNT} - 0.26)) / \text{TIME}) * 360 \text{ (CW)}$$

$$((\text{TIME} - (\text{TCNT} - 0.26)) / \text{TIME}) * 360 - 360 \text{ (CCW)}$$

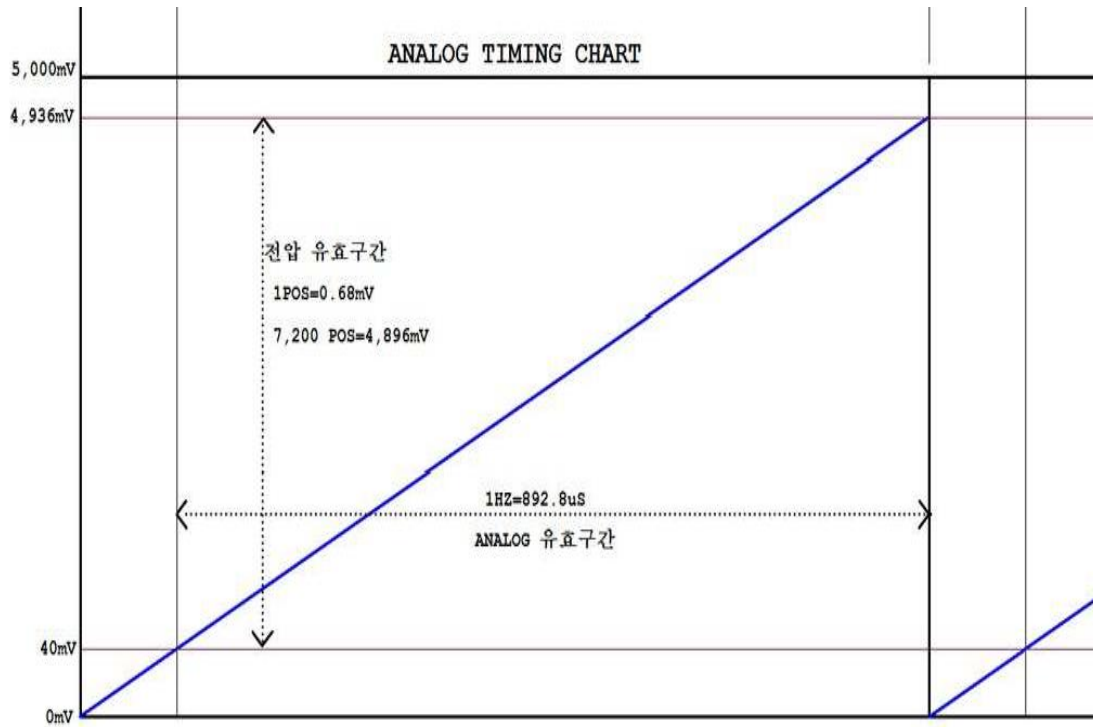


[PWM-Analog Converter]

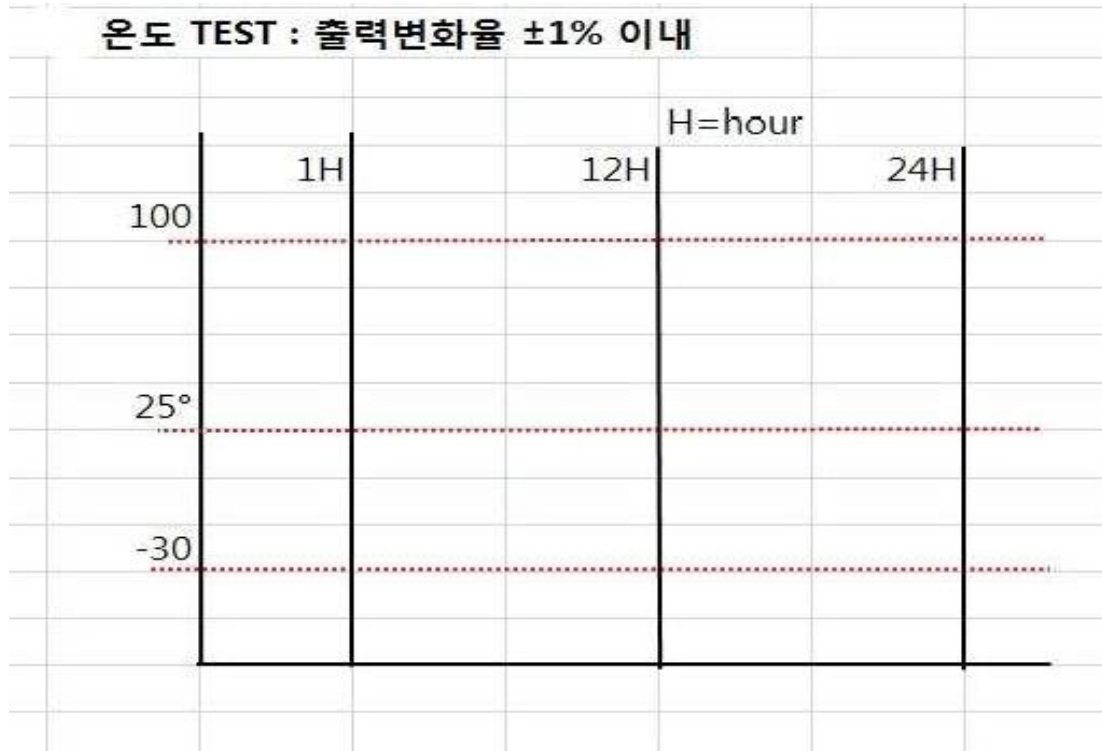
A-SCHEMATIC



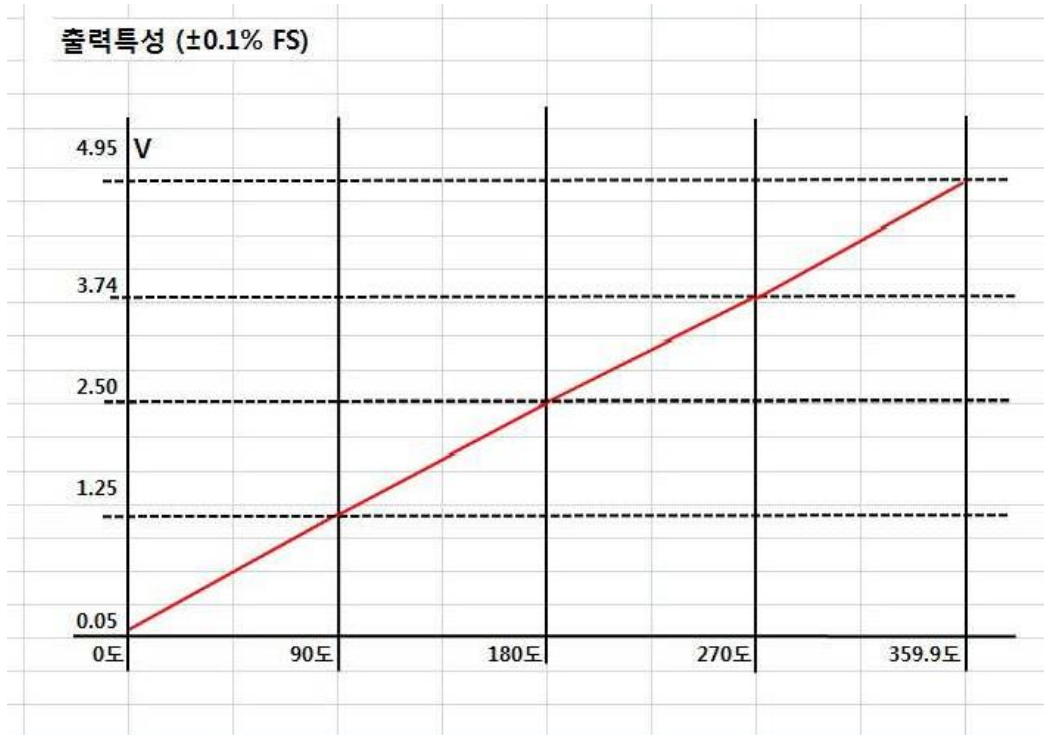
[Analog Outputs Timing Chart]



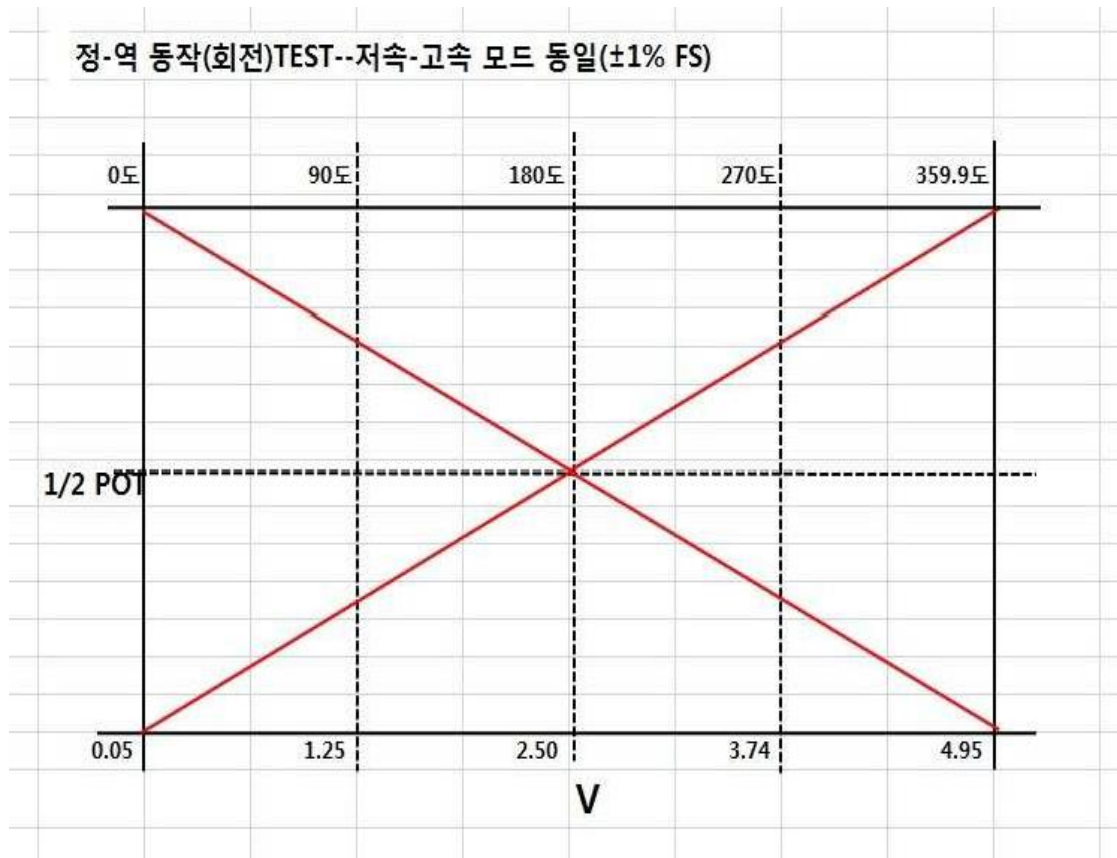
[Analog Output characteristic]-Temperature



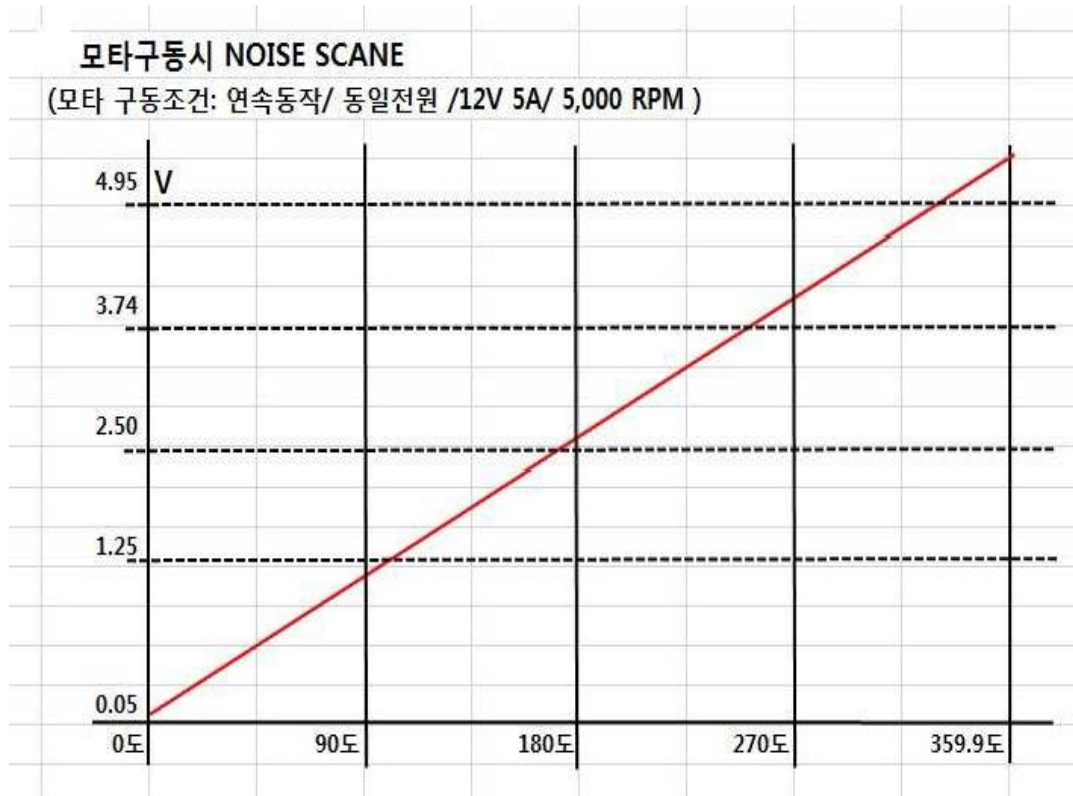
[Analog Output characteristic]-Analog



[Analog Output characteristic]-Forward-Reverse



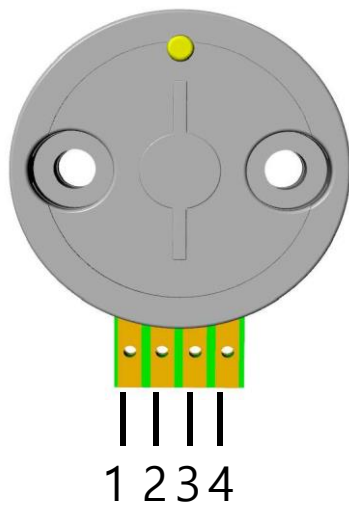
[Analog Output characteristic]-Noise Scan



[Pin Assignment]

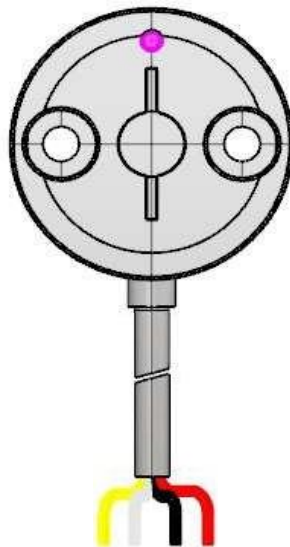
[Location description]

PCB Type

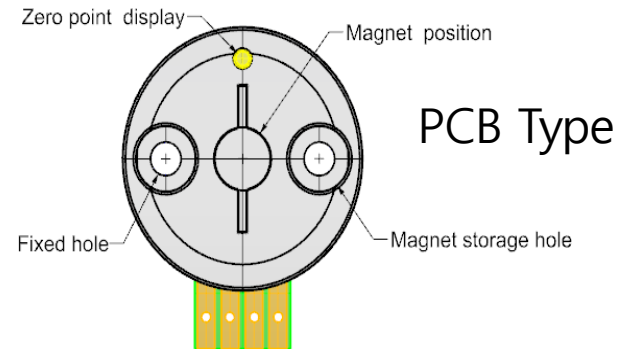


SME360API-12

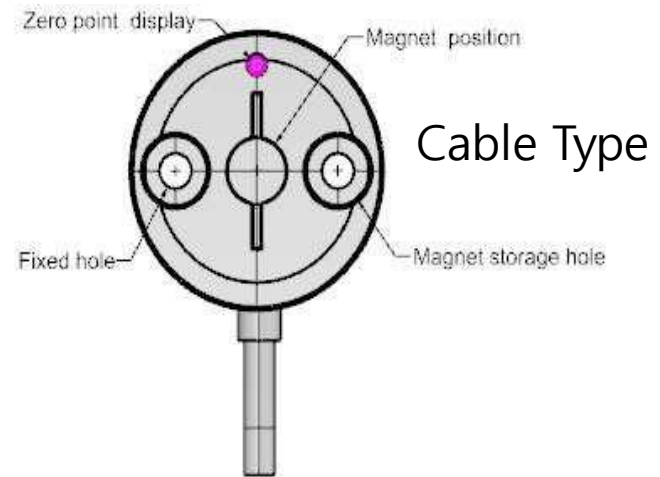
Cable Type



- 1) Y-----ANALOG(SDA)
- 2) W-----PWM(SCL)
- 3) B-----GND
- 4) R-----VCC(+6V~12V)

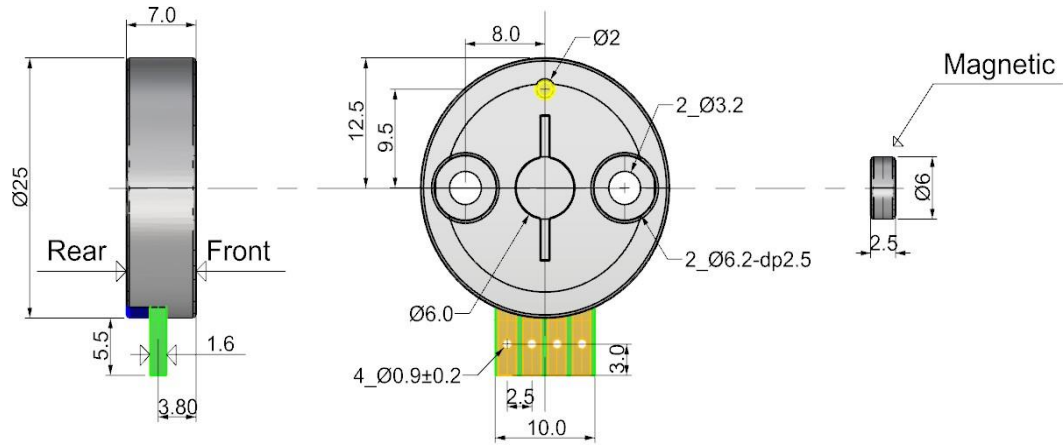


SME360API-12 Location description

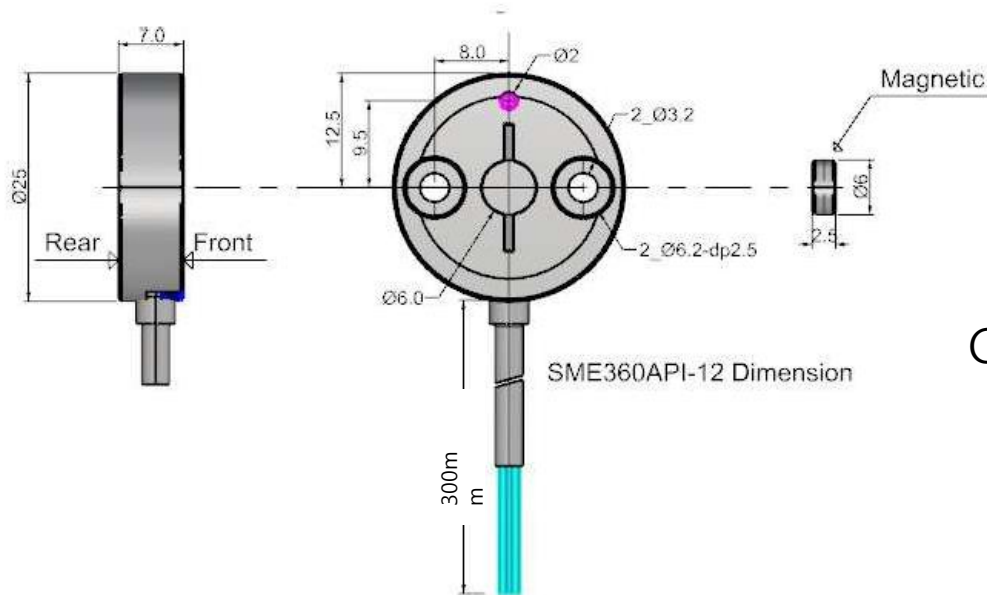


[Dimension]

PCB Type



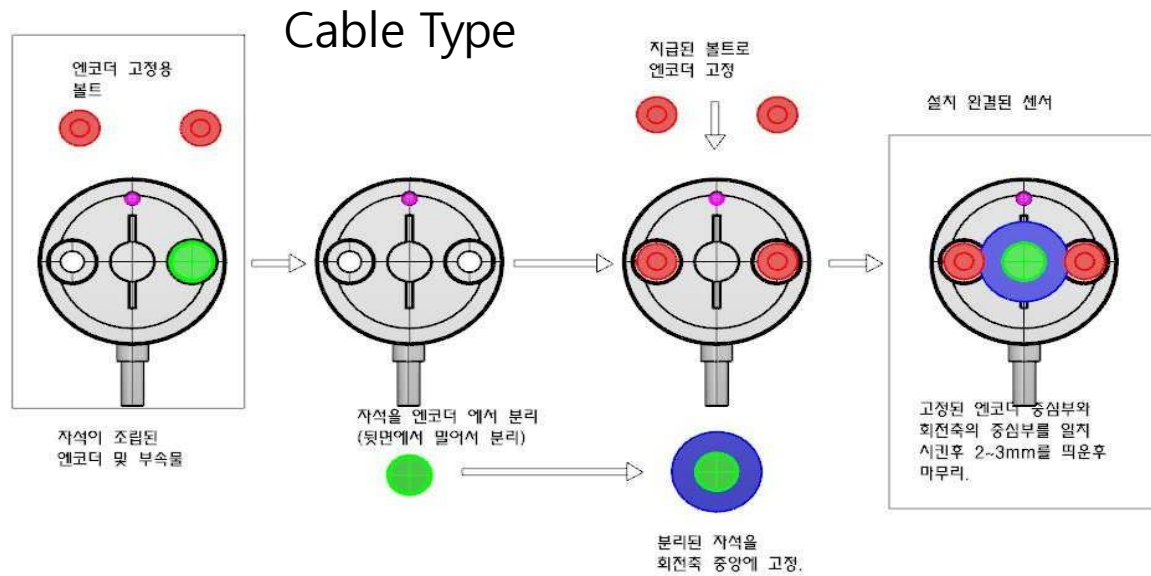
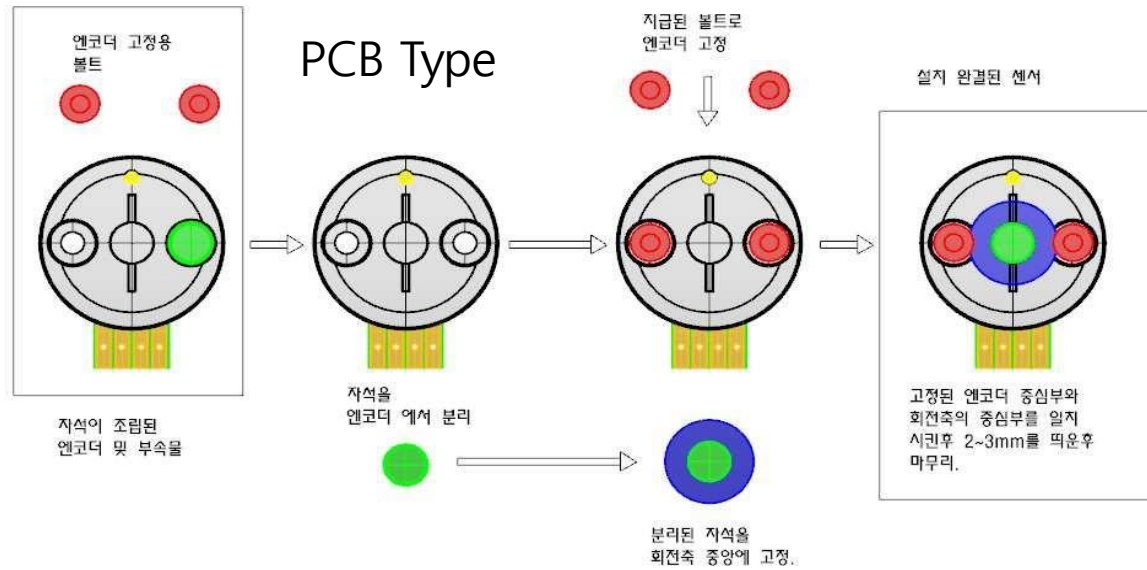
SME360API-12 Dimension



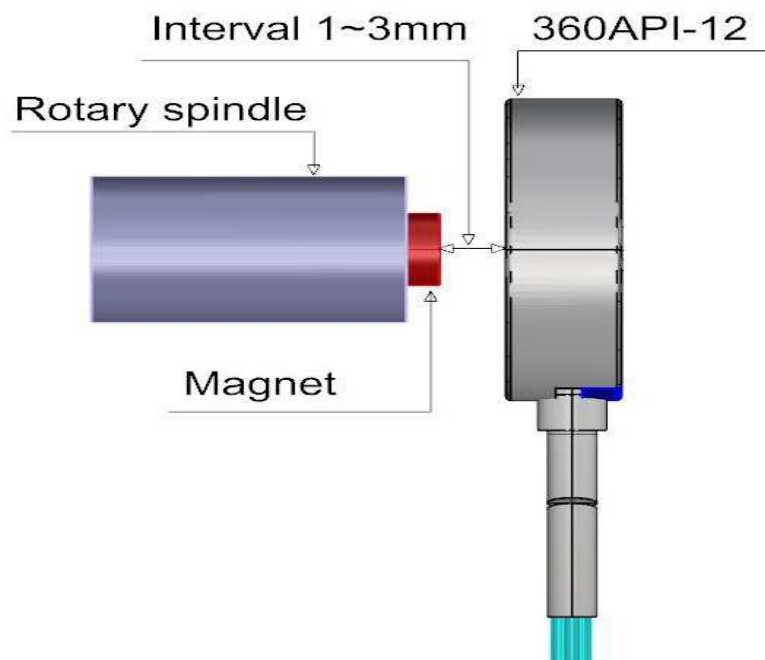
SME360API-12 Dimension

Cable Type

[Fixing procedure]



[Magnet Spacing]



[Coupling Device]

