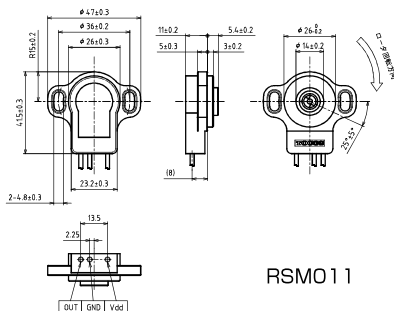
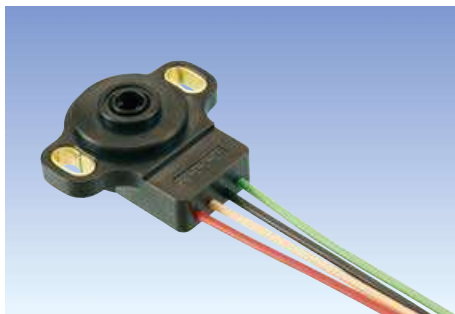
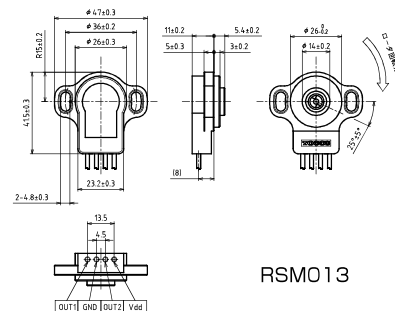


RSM011 (1出力型) / RSM013 (2出力型) Compact Non-contact Angle Sensor RSM011 (1 Output) / RSM013 (2 Output)

(Unit : mm)



RSM011



RSM013

■特 徴

- 電気摺動接点が無く、高回転寿命で高耐ディザ動作
- シリキサンによる接点障害がない
- 低出力インピーダンスであり、低い負荷抵抗に対応できる
- 薄型11mm（取付面よりの出た）
- 広範囲の検出角度対応
- シャフト挿入タイプ
- 磁気シールド付き
- 出力勾配、位相がカスタマイズ可能な2出力タイプ（RSM013）

■用途例

- 自動車、農機具、雪上車両、船舶等の電子制御機器の位置、角度検出
- アミューズメント機器、各種アクチュエータ、バルブ開度検出
- その他、角度検出が必要で高い信頼性、高回転寿命が要求される用途

■仕 様 (Vdd=5.0[V])

項目	定格
電源電圧	5V±0.5
消費電流	≤16mA (non load)
電氣的有効回転角	96° 20 ~ 360° (Option)
絶対直線性	≤ 1 %F.S. (Std.)
出力電圧	8 ~ 92 %Vdd (0.4 ~ 4.6[V] @Vdd=5.0[V])
下限クランプ電圧	8%Vd (0.4[V] @Vdd=5.0[V])
上限クランプ電圧	92%Vdd (4.6[V] @Vdd=5.0[V])
負荷抵抗	10kΩ (Std.), ≥ 1 (Min.) (Pull-down to Ground)
最大電圧	12V (Std. ZD voltage)
最大逆電圧	0.3V (std.)
ヒステリシス	≤0.5%F.S.
分解能	0.025%Vdd/LSB (1.25[mV]@Vdd=5.0[V])
機械的回転角	130°
回転トルク	4.9 ~ 75mN.m (std.)
動作温度	-40 ~ 125°C
保存温度	-40 ~ 125°C
耐振動	30g (50 ~ 250Hz, XYZ-12Hrs.)
耐衝撃	100g (3ms, 18times)
回転寿命	30 million
温度サイクル	1,000cycle (-40~125°C)
低温放置	1,000h (-40°C)
高温放置	1,000h (125°C)
電磁妨害耐性	200V/m (1MHz ~ 1GHz)
静電気破壊	±8kV (Contact discharge) ±15(Air discharge) IEC-61000-4-2
保護等級	IP65 (std.), IP40 (Option)

■Features

- No sliding electrical contacts. Long life. Resistant to dither movements.
- No contacting problems caused by siloxane
- Low impedance allows the load resistance to lower
- Low profile 11mm (from mounting surface to the top)
- Meet wide range detection angles
- Shafts insertable
- Magnet shield type
- Dual output. Users chosen output characteristics are settable. (RSM013)

■Applications

- Angle/position sensor for electrical control equipment of automotive, agricultural machineries, snow mobiles, marine vessels.
- Game machines.
- Office automation equipment.
- Actuators
- Valve close/open position sensor
- For other various applications where angle sensing with high reliability and longer life are required.

■Specifications (Vdd=5.0[V])

Item	Rating
Supply voltage	5V±0.5
Supply current	≤16mA (non load)
Angular range	96° 20 ~ 360° (Option)
Absolute linearity	≤ 1 %F.S. (Std.)
Output voltage	8 ~ 92 %Vdd (0.4 ~ 4.6[V] @Vdd=5.0[V])
Minimum Clamping voltage	8%Vdd (0.4[V] @Vdd=5.0[V])
Maximum Clamping voltage	92%Vdd (4.6[V] @Vdd=5.0[V])
Load resistor	10kΩ (Std.), ≥ 1 (Min.) (Pull-down to Ground)
Maximum Supply voltage	12V (Std. ZD voltage)
Maximum reverse voltage	0.3V (std.)
Hysteresis	≤0.5%F.S.
Output Resolution	0.025%Vdd/LSB (1.25[mV]@Vdd=5.0[V])
Mechanical travel	130°
Torque	4.9 ~ 75mN.m (std.)
Operating temperature range	-40 ~ 125°C
Storage temperature range	-40 ~ 125°C
Vibration	30g (50 ~ 250Hz, XYZ-12Hrs.)
Shock	100g (3ms, 18times)
Rotation life	30 million
Temperature cycle	1,000cycle (-40 to 125°C)
Low temperature exposure	1,000h (-40°C)
High temperature exposure	1,000h (125°C)
Electro Magnetic Susceptibility	200V/m (1MHz ~ 1GHz)
Electro static discharge	±8kV (Contact discharge) ±15(Air discharge) IEC-61000-4-2
International Protection	IP65 (std.), IP40 (Option)